

HUMAN SEXUALITY

The Transgender Handbook

TRANS

A Guide for
Transgender People,
Their Families
and Professionals

Walter Pierre Bouman
Jon Arcelus

Editors

NOVA

HUMAN SEXUALITY

THE TRANSGENDER HANDBOOK

A GUIDE FOR TRANSGENDER PEOPLE, THEIR FAMILIES AND PROFESSIONALS

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THE TRANSGENDER HANDBOOK
A GUIDE FOR TRANSGENDER PEOPLE,
THEIR FAMILIES AND PROFESSIONALS

WALTER PIERRE BOUMAN
AND
JON ARCELUS
EDITORS



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IN MEMORIAM

We dedicate this book to Sebastian Hughes

whose light shone brightly

but far too short

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INTRODUCTION

As clinicians working in the field of transgender health for many years, we daily encounter people, whether trans, non-binary, cis or otherwise; whether patients, parents, partners, friends or professionals, such as teachers or primary care physicians, who ask us for more information about different aspects of transgender health care. It is true that there are books out there, written by eminent academics and/or specialist clinicians, that discuss the care of transgender health in depth, but most of those books are written by and for professionals, and mainly focus on the information that physicians and other professionals working in the field may require. There are also books that are written by transgender people themselves, usually describing the experiences they have gone through. However, we felt that a book providing facts and figures, written in predominantly lay language and easy to follow, was lacking. We started to discuss our ideas of creating such a book with some of our colleagues and with those who attend our clinical practice. Their feedback was clear: a book like that was desperately needed. The feedback also suggested that such a book should not only cover the health care aspects of transgender people, but also other important aspects, such as work, education or family life, that have an impact on quality of life.

We invited several professionals to contribute towards this book. We wanted to create a book written by professionals, clinicians and academics where the professional and complex language was translated into an easy to follow text. This is easier said than done. We hope we have managed to do so, but leave this for you, the reader to decide. This book is written for anyone who, for whatever reason, wants to know more about being transgender, the issues transgender people encounter, and many of the medical, psychological and social aspects associated with social gender role change of some sort.

We contacted Nadya Columbus, Head of Nova publishers, who was clearly interested. How could she not be? Transgender people are becoming increasingly visible in society and many people show a keen interest and would like to be well informed.

Initially, we were planning to develop a small book with around ten to twelve chapters, but when we started to think what was needed to provide a fair and comprehensive overview of transgender related issues, the number of chapters continued to increase and the book became bigger and bigger, culminating in 29 chapters as the final tally. We designated one or more specific authors, who we thought were best placed to write each individual chapter. When we subsequently started to contact the authors, who are all highly regarded specialists in their field, we were overwhelmed by their enthusiasm. Everybody wanted to be part of this project and everyone responded very positively. Hence, we would like to express our sincere

gratitude to all our colleagues who are part of this book – without them there would be no book! Also, we thank our friend and English editor David Nichols, who provided a final edit for most of the chapters. And thus, because everyone was so positive and energetic and an expert in their field, the entire journey from start to finish has been a most pleasurable experience. It has been a joy to work with everyone!!

This Handbook aims to provide a comprehensive account of current knowledge, understanding and clinical practice of transgender health and well-being - in its broadest sense. Also, the book may act as a signpost to all those sympathetic to, and trying to address, the difficulties faced by transgender people, directing them to appropriate sources of help. Focusing on the provision of practical information and a clear approach, we hope that this Handbook is a helpful introduction to transgender care for transgender people, their families (of choice), professionals, such as teachers, social workers, counsellors, psychologists, healthcare providers and everyone else who may be interested in this topic. Each chapter has an overview box, which gives a brief summary of the content of the chapter. The chapter usually starts with an introduction, followed by an up-to-date overview about the topic. Each chapter has learning points for the reader, and many have a further reading section and/or a list of web-sites related to the topic. Most chapters have a generous references section, too.

The last, and perhaps most important thing we want to share with you, the reader, is to acknowledge that we feel forever indebted to all the people who have shared their lives, their stories and their journeys with us. We have been, and continue to be, emotionally touched by the very many transgender people we encounter in our daily working life. It is because of their remarkable journeys and resilience that we felt that a book like this could be and should be published. We thought that the task of putting this book together within a relatively short time frame and in addition to our busy clinical work, was going to be an impossible task. But, as Amanita in Sense8 once said, “Impossibility is a kiss away from reality.” So it was not, and the book is now a reality. We genuinely hope this book will help towards increasing further acceptance and depathologization of transgender people.

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Chapter 1

LANGUAGE AND TERMINOLOGY

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OVERVIEW

This chapter gives an overview of the terminology in the field of transgender healthcare. The word transgender is often used to describe anyone whose gender identity, expression or behaviour is different from the assigned gender at birth based on the sexual characteristics. The chapter describes a brief historical development of the concept of gender and gender role, and provides a list of terms related to transgender explaining what each term means in order to guide the reader throughout the book.

INTRODUCTION

This book aims to give an overview of the many social, psychological, physical, legal and employment aspects that transgender people and their families (of choice) may encounter before, during and after their transition. There are many terms associated with being transgender and with transitioning that will be used in this book and hence we will start this first chapter explaining and defining the various terms. It is important to have a clear understanding of the meaning of the terminology used in this field. Terminology has changed significantly over the years and many new terms have been introduced, whilst older ones have been discarded and are no longer deemed politically correct.

The community often referred to as the transgender or trans* community is an extraordinarily diverse group of people. Defining and quantifying the transgender population is problematic as there are currently few measurable and/or standardized criteria (e.g., physical, social, political, etc.) regarding what might or should constitute a transgender person. Furthermore, there is a relative invisibility in which many transgender people exist in their daily lives (Meier and Labuski, 2013).

So we acknowledge (and apologize in advance) that the terminology we use and describe does not necessarily completely capture everyone who identifies as transgender or gender non-conforming. Nevertheless, terminology, and therefore vocabulary, are highly relevant when we connect with transgender people and their families (of choice) and friends. In addition, terminology and vocabulary are important when attempting to address and target a community for access to healthcare and education, health promotion, disease prevention and so on (Wylie, 2015).

The term ‘transgender’ has become increasingly popular in the past decade and reflects and includes people with a less restrictive or binarized set of beliefs. More specifically, ‘transgender’ describes anyone whose gender identity, expression or behaviour is different from the assigned gender at birth based on the sexual characteristics. The term ‘Trans’ is also used as an abbreviation for ‘transgender.’ People in this category may feel as if they are in the wrong gender, but this perception may not necessarily correlate with a desire for hormonal or surgical reassignment. So, it is fair to say that the field of transgender health and well-being remains in transition and the associated terminology and vocabulary continue to evolve too!

Gender

The Oxford Dictionary of English (Stevenson, 2010) states that the word ‘gender’ has been used since the 14th century as a grammatical term, referring to classes of noun designated as *masculine*, *feminine*, or *neuter* in some languages. The sense ‘the state of being male or female’ has also been used since the 14th century, but this did not become common until the mid 20th century. Although the words ‘gender’ and ‘sex’ both have the meaning ‘the state of being male or female,’ they are typically used in slightly different ways: ‘sex’ tends to refer to biological differences, whilst ‘gender’ refers to cultural, social and/or psychological ones. In other words, biological ‘sex’ includes indicators such as sex chromosomes, anatomy of an individual’s reproductive system, and secondary sex characteristics (for definitions see below), whilst ‘gender’ refers to one’s personal identification of one’s own gender, based on an internal awareness (gender identity) and/or one’s social gender role and expression. In some people, the body they are born with does not align with their gender assigned at birth, and the person may identify, sometimes from a very early age onwards, as transgender, gender-nonconforming, non-binary, or any other term which one feels applies correctly to one’s experienced gender identity.

Gender is the central theme of this book. It therefore seems apt to start describing what we mean by the word ‘gender.’ The traditional concept of ‘gender’ as a noun refers to the state of being male or female (typically used with reference to social and cultural differences rather than biological ones). The word ‘sex’ refers to the biological and physiological characteristics that define men and women, and ‘gender’ refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women. Therefore, it is often stated that sex is something that does not change, whilst gender can change according to social structure (and of course according to how one experiences one’s own gender (identity)). We must, however, also state that gender is increasingly recognised and experienced as more than a binary concept of being male or female. Many people feel their gender does not fit within a binary model. There are many people who identify their gender outside the traditional concept of male and female.

The sex and gender distinction is not universal. In ordinary speech, *sex* and *gender* are often - erroneously - used interchangeably and synonymously. Some dictionaries and academic disciplines give *sex* and *gender* different definitions while others do not.

Gender Role

John Money was a New Zealand psychologist, sexologist and author, who is well known for his research into sexual orientation and gender identity. From the 1950s onwards he was a professor of pediatrics and medical psychology at the Johns Hopkins University in Baltimore, Maryland, USA, where he set up the gender identity clinic. John Money coined the term 'gender role,' and defined this as "all those things that a person says or does to disclose himself or herself as having the status of boy or man, girl or woman, respectively. Gender role is appraised in relation to the following: general mannerisms, deportment and demeanor; play preferences and recreational interests; spontaneous topics of talk in unprompted conversation and casual comment; content of dreams, daydreams and fantasies; replies to oblique inquiries and projective tests; evidence of erotic practices, and, finally, the person's own replies to direct inquiry" (Money, 1955). Although a person's sex as male or female is considered a biological fact, which is identical in any culture, what that specific sex means in relation to a person's gender role as a man or a woman in society varies in different cultures according to what things are considered to be masculine or feminine. Gender roles are learned from various, intersecting sources such as parental and familial influences, the socialization a child receives in and out of school, what is portrayed in the various media, the social, cultural, religious, and political values held by society and our direct environment, and many other external contacts or sources. It is also important to note that learning gender roles starts from birth and includes seemingly simple things like what colour outfits a baby is clothed in or what toys they are given to play with. However, the gender roles we learn and are expected to adhere to, may not necessarily reflect how we want to act and behave. Many transgender and cisgender people report feeling uncomfortable with the gender roles they are expected to follow and live in ways that purposely and consciously challenge the often restrictive categories of male and female gender roles.

John Money made the concept of *gender* a broader, more inclusive concept than one of solely masculine or feminine, male or female. Gender included not only one's status as a man or a woman, but was also a matter of personal recognition, social assignment, and legal determination. In other words, gender was not only attributed and recognized on the basis of one's external genitalia (private parts), but also on the basis of other physical and behavioural criteria that go way beyond genital differences. Broadening the concept of gender, as John Money described innovatively all those years ago, may now seem rather trivial and outdated, but the concept of gender (and gender roles) continues to be broadened as well as critically examined.

What many boys and men like to wear today may be something girls and women will want to wear tomorrow. Conversely, what many girls and women like to do today may be something boys and men will also like tomorrow.

Many people, including clinicians and academics, do not support the notion that certain behaviours, activities, and attributes in our society are specifically male or female, or considered appropriate for, and applicable to, men or women only. Women can play soccer

and lead large companies, whilst men may choose to be house fathers and have knitting as a hobby, to name but a few of the endless endeavours people may choose to undertake. The times when transgender women were expected to wear skirts or dresses and men trousers when attending transgender healthcare services are long gone, and such attitudes are nowadays – rightly - deemed inappropriate and offensive. The concept of gender is as much in flux as are all of us and our society. They are continuously evolving and developing. In this context, society's constructed rules are increasingly at a crossroads with regard to the assignment of a specific gender to an individual. Gender ambiguity deals with having the freedom to choose, manipulate and create a personal niche within any defined socially constructed code of conduct, whilst gender fluidity is outlawing all the rules of cultural gender assignment. It does not accept the existence of the rigidly defined binary gender of a man and a woman and believes in freedom to choose any kind of gender with no rules, no defined boundaries and no fulfilling of expectations associated with any particular gender. Population studies show that a small percentage of the population identifies as non-binary (for further reading see Richards, Bouman and Barker, 2017).

Nonetheless, most societies have only two distinct classes of gender, male and female, that correspond with the biological sexes of male and female. When a baby is born, society allocates the child to a gender, on the basis of their external genitalia. The assigned gender is subsequently specified on one's birth certificate and passport and most countries require that a passport gender marker is either female or male. A few countries, such as Australia, Bangladesh, Denmark, India, Nepal and New Zealand allow passports to have a non-binary gender marker, called X (unspecified), T (transgender or third gender), E (eunuch), or O (other), depending on the country. Having a non-binary marker on one's passport may make it difficult to travel to a country whose passports do not give that option.

Also, some societies explicitly incorporate people who adopt the gender role opposite to their biological sex. For example, the two-spirit people amongst different indigenous North Americans – including the Winkte of the Lakota, the Nàdleehi of the Navajo, and the Badés of the Sioux, amongst others (Epple, 1998). Other societies include well-developed roles that are explicitly considered more or less distinct from archetypal female and male roles in those societies. Sometimes the gender of these people is referred to as a third gender. One such gender role is that adopted by the Hijras of India, Bangladesh and Pakistan (Nanda, 1990). Another example may be the Muxe found in the state of Oaxaca, in southern Mexico (Stephen, 2002).

The Bugis people of Sulawesi, Indonesia have a social system accommodating five gender categories (Graham, 2004). There are many more examples, which go beyond the scope of this chapter (see for instance Bacigalupo, 2010; Herdt, 1993).

The point is that, historically, there have been and are, many different expressions of gender in different societies all over the world. Some of these gender expressions are embedded and well accepted within their culture and society, whilst others are less so.

Description of the Various Terms

The definitions of the following terms are based on the available literature we have read, our clinical training and years of clinical experience. We have listed the terms in alphabetical

order so they can easily be found when reading the different chapters of this book. Words in *italics* indicate that they are terms that can be found in this list.

1. **Affirmed Gender:** This term is becoming more common and is used to describe *transgender people* post-transition. This term indicates that the *gender identity* is now in line with the *gender role* and the appearance of the person.
2. **Androphilic:** A person who feels a sexual attraction to masculinity or who has a sexual interest in physically adult males.
3. **Assigned Gender:** This term is used to describe the gender that a person is assigned to when they are born, based on the genital appearance. In some people this gender may be in line with their *gender identity* (which is the case in *cisgender people*), but in others it is not.
4. **Bi-gendered:** A person who has a *gender identity* that encompasses both *binary genders*, male and female. In some case they may feel that one gender is stronger than the other. See *non-binary* definition and the specific chapter in this book for more information.
5. **Binary Gender:** This term is used to classify sex and gender into two opposite and distinct groups, masculine and feminine. In the majority of societies gender is only divided into female or male (in a *binary* way). Gradually, we are becoming aware that there are people whose *gender identity* does not fall into those two categories. This is when the term *non-binary gender* is used.
6. **Bisexuality:** Also ‘bi.’ A person who is attracted to two sexes or two genders, but not necessarily simultaneously or equally. This used to be defined as a person who is attracted to both genders or both sexes, but since there are not only two genders (see *transgender*), this definition is inaccurate.
7. **Bottom Surgery:** This term is used colloquially to describe gender confirmation genital surgery. See *gender confirmation genital surgery*.
8. **Chest Reconstructive Surgery:** A gender confirming surgery that involves the creation of a contoured, male-looking chest in a *transgender man*. The term “*top surgery*” is also used colloquially.
9. **Cisgender** or **Cis:** A person whose *assigned gender* is in line with their *gender identity*. Cis women and cis men (the Latin *cis* means “same”) live in and identify with the same body in which they were born.
10. **Coming out:** Recognising one's sexual orientation, or gender identity, and being open about it with oneself and with others.
11. **Cross-dress:** A verb used to describe the action of dressing using clothing of the opposite *binary gender*.
12. **Cross-dresser:** A person who cross-dresses (dresses in clothes that a society considers to be stereotypical from the opposite *binary gender*). This person does not aim to live full-time as the other gender and is happy with their *gender identity* and *assigned gender*. The older term “*transvestite*” is considered derogatory by many and should be avoided.
13. **Differences of Sex Development (DSD):** Refers to people born with a sexual anatomy and/or chromosome pattern that does not fit the typical sexual anatomy and/or chromosome pattern of male and female. In some cases, the appearance of the genitalia at birth may not be clear and the assigned gender and gender role (boy or

girl) given may not be consistent with the gender identity of the person. The inconsistencies in the development of the sexual organs may be associated with atypical sex chromosomes such as Klinefelter syndrome (XXY), or Jacob's syndrome (XYY). The term *Intersex* has also been used instead of DSD, although many people are of the opinion that DSD is a more appropriate term to use. This book will not address DSD.

14. **Drag King:** A female performer who cross-dresses as a man with the sole aim of entertaining others at bars, clubs, or similar events.
15. **Drag Queen:** A male performer who cross-dresses as a woman with the sole aim of entertaining others at bars, clubs, or similar events.
16. **Family of Choice:** Persons or group of people an individual sees as significant in their life. It may include none, all, or some members of their family of origin. In addition, it may include individuals such as significant others, domestic partners, friends, and co-workers.
17. **FTM:** A person who transitions from a female assigned gender to a male gender as they identify themselves as male.
18. **Gender:** Is about three things, namely; (1) our biology (*sex chromosomes*, anatomy of the reproductive system and secondary sex characteristics); (2) *gender expression*, and (3) *gender identity*. Gender is about who someone is. There are lots of different genders. No one can tell another person how they feel on the inside. For further information see what has been written above.
19. **Gender Binary:** *See binary gender*
20. **Gender Confirmation Treatment (GCT):** *Transgender people* who wish to *transition* permanently to their experienced gender in order to *affirm their gender* may undergo treatment. This treatment is known as gender confirmatory or confirming treatment. GCT includes hormone treatment and gender confirming genital surgery.
21. **Gender Confirmation Surgery:** This term is used to describe the surgical procedures required in order for a *transgender* person to change their body to reflect their *gender identity*. This may include *chest reconstructive surgery*, breast augmentation surgery, *gender confirmation genital surgery* and other surgeries such as vocal cord surgery, facial surgery, and so on.
22. **Gender Confirmation Genital Surgery:** The surgical procedures required in order for a *transgender* person to change their genitals to reflect their gender identity. In the past the term *sex reassignment surgery* (SRS) has been used. The term *gender surgery* is also used. Colloquially "*bottom*" surgery can be used.
23. **Gender Dysphoria:** The distress that some transgender people feel due to the discrepancy between their assigned gender at birth and their gender identity. This distress can include high levels of disgust with their sex characteristics, as these may contradict their gender identity. The distress can also be due to the interpersonal prejudice and discrimination from society. The same term (Gender Dysphoria) is also used as a diagnosis. (For further information regarding Gender Dysphoria *as a diagnosis* see chapter 4.)
24. **Gender Expression:** The way a person expresses one's *gender identity* to others. A person can express their gender through their behaviour, mannerism, clothing, hairstyle, voice or body characteristics. Some of those expressions are culturally

- bound, for example, outside of Western cultures, it is not uncommon for men to wear skirts and skirt-like garments; however, in North America and much of Europe, the wearing of a skirt is usually associated with being a woman. Other stereotypical gender expectations are that men should not cry and women are gentle.
25. **Gender Fluid:** A person whose gender identity varies over time. A gender fluid person may at any time identify as male, female, *neutrois*, or any other *non-binary identity* or some combination of identities. See *non-binary*.
 26. **Gender Identity:** The psychological identification of oneself or the internal sense of being (the way we feel inside, in our hearts and in our minds) in relation to gender. How people feel about their gender is very personal. Only the individual knows this. Traditionally, in western societies, there is a presumption that the gender identity of a person is *binary* (male or female) and will match the assigned gender at birth. This is not always the case. Although gender identity may be powerfully influenced by the sex of the genitalia and the gender of rearing (including the *role* and *expression* of the gender), it is not solely determined by these factors.
 27. **Gender Neutral, or Non-gender:** A person who may regard themselves as not having a gender. This is part of the *non-binary* spectrum. See *non-binary* definition and chapter in this book for more information.
 28. **Gender Non-conforming:** Any individual whose *gender expression* is different from what society expects of them, due to their assigned gender at birth. See *Gender Variance* too.
 29. **Gender Surgery:** See *gender confirmation genital surgery*.
 30. **Gender Queer:** This term is used for people who identify themselves as neither entirely male nor entirely female. The term “non-binary” is also used. See *non-binary* for more information.
 31. **Gender Recognition Certificate:** In the United Kingdom transgender people who have undergone a permanent change of social gender status can obtain legal recognition in the form of a Gender Recognition Certificate (GRC), which allows them to change their birth certificate. Obtaining a GRC does not necessarily require hormone treatment or gender confirmation surgery.
 32. **Gender Role:** This term is similar to *gender expression* and is used to describe the gender social role, which is based on societal and cultural rules. There are rules in society that dictate what a man or a woman should wear, feel, and do in society. This is learned very early on, when we are children. For example, boys should not wear pink, boys should not play with dolls, girls should not climb trees, etc. In spite of the greater gender equality in some Western cultures there are still ‘rules’ in our society about what is appropriate for a man or a woman, a boy or a girl, especially in terms of appearance. A significant departure from those rules often causes anxiety to others, which can be reflected onto the gender nonconforming person, causing distress and *dysphoria*.
 33. **Gender Variance:** This term is used to describe the fact that some people dress and/or behave in ways that are perceived by others as being outside of the cultural and societal gender expressions. Another term used to describe the same is *gender nonconformity*.
 34. **Gynaephyllic:** A person who feels a sexual attraction to femininity or who has a sexual interest in physically adult women.

35. **Intersex:** Refers to people born with a sexual anatomy and/or chromosome pattern that does not fit the typical sexual anatomy and/or chromosome pattern of male and female. Many people feel that DSD is a more appropriate term. See DSD for more information.
36. **MTF:** A person who transitions from the assigned gender of Male to Female as they identify themselves as female.
37. **Mx:** Is an English-language honorific for use alongside Mr, Ms, etc. that does not indicate gender. It is often the only option for non-binary people, as well as those who do not wish to reveal their gender.
38. **Neutrois:** Refers to people who consider themselves to have a neutral gender or not to have a gender. It is part of the *non-binary gender*.
39. **Non-binary Gender:** This term is used to describe people who don't see themselves as being part of the binary gender (male or female). As part of the non-binary spectrum people can identify themselves as *gender queer*, *neutrois*, *pan-gender*, *poly-gender*, *third gender*, etc. The pronouns that non-binary people often prefer is "they" and the title "Mx." (For further information regarding non-binary genders see chapter 12.)
40. **Non-gender:** A person who considers themselves not to have a gender. It is part of the *non-binary gender*.
41. **Pan-gender:** A person who identifies himself as having an infinite number of genders that goes beyond the knowledge we have currently about genders. It is part of the *non-binary gender*.
42. **Poly-gender:** A person who identifies himself as having several genders, either simultaneously or not. It is part of the *non-binary gender*.
43. **Queer:** This is an umbrella term to cover people who are not heterosexual or *cisgender*. A term used to refer to lesbian, gay, bisexual and, often also transgender, people. It can have a derogatory connotation.
44. **Reproductive System:** Refers to the organs and parts, which function in the process of reproduction in the male, especially the testes, penis, seminal vesicles, prostate, and urethra and in the female, especially the ovaries, fallopian tubes, uterus, vagina, and vulva.
45. **Secondary Sex Characteristics:** Are any of a number of manifestations, such as development of breasts or beard, muscularity, distribution of fat tissue and change of pitch in voice, specific to the male and female body, starting and developing at puberty, but not essential to reproduction.
46. **Sex (1):** When a child is born, the first question that parents ask (unless they know it in advance) is whether the child is a boy or a girl. The midwife or the doctor will look at whether the child has a penis or a vagina and, based on this, they will tell them whether the baby is a boy or a girl. This is the *sex* of the baby, not the *gender*. Sex and Gender are often used interchangeably, as if they mean the same, but sex refers to the biological differences (penis or vagina) between male and female. Based on this the child will be assigned as male or female. When the child is born, the sex of the infant is based on the genitals but internal reproductive organs, physical characteristics, (musculature or fat distribution when they are older) and the brain, are all sex differentiated. And of course, the *sex chromosomes* (XX for a woman or XY for a man) will usually be related to the genitals of the person.

47. **Sex (2):** Refers to the biological characteristics that define humans as female or male. While these sets of biological characteristics are not mutually exclusive, as there are individuals who possess both, they tend to differentiate humans as males and females. In general use in many languages, the term *sex* is often used to mean “sexual activity,” but for technical purposes in the context of sexuality and sexual health discussions, the above definition is preferred.
48. **Sex Chromosomes:** Either of a pair of chromosomes, usually designated X or Y, that combine to determine the sex and sex-linked characteristics of an individual, with XX resulting in a female and XY in a male.
49. **Sexual Orientation:** Is an enduring pattern of romantic or sexual attraction (or a combination of these) to persons of the opposite sex or gender, the same sex or gender, or to both sexes or more than one gender.
50. **Sex Reassignment Surgery:** See *gender confirmation genital surgery*.
51. **Top Surgery:** This term may be used colloquially to describe *chest reconstructive surgery*. See *chest reconstructive surgery*.
52. **Third Gender:** A person who is not considered by themselves or others to be male or female. Some societies have recognized the existence of a third gender. A third gender in those cultures represents an intermediate state between man and woman, a state of being both, or neither. The term “third gender” has gained legal identity in India, Bangladesh and Pakistan.
53. **Trans:** See *Transgender*
54. **Trans*:** This term has been used as the most inclusive umbrella term to include anyone who is not *Cis*. In other words, the asterisk used at the end of *trans** indicates inclusion of all nonconforming (gender queer) groups and includes non-binary people who self-describe or self-identify in a number of ways (e.g., as pangender, polygender, bigender, neutrois, and so on).
55. **Transgender:** An umbrella term to describe anyone whose gender identity, expression or behaviour is different from the assigned gender at birth based on the sexual characteristics. The term *Trans* is also used as an abbreviation for transgender.
56. **Transgenderism:** Refers to a state or condition in which a person's identity does not conform unambiguously to conventional ideas of male or female gender.
57. **Transgender Man:** A person who was assigned a female gender at birth based on their sexual characteristics, but who identifies as male.
58. **Transgender Woman:** A person who was assigned a male gender at birth based on their sexual characteristics but who identifies as female.
59. **Transsexual:** The term transsexual (as an adjective) has been used since 1949 to refer to people who had a clear sense of being “[born] in the wrong body” (Cauldwell, 1949). This term is largely confined to legislation and to medical literature. As the terms ‘*transsexual*’ and ‘*transsexualism*’ are and have been used as a diagnosis in the *International Classification of Diseases and Health Related Problems* (ICD-10; WHO) and in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III: APA), they are thought to pathologize transgender people. The terms ‘*transsexual*’ and ‘*transsexualism*’ are often considered old-fashioned and stigmatizing, and this terminology is increasingly being replaced with terms, such as ‘*transgender*’ and ‘*trans*,’ which many people deem more acceptable. Language is political and depends on place, time, and sometimes, age group. Older trans people

seem more inclined to use “transsexual,” and to distinguish between this binary identity and other non-binary or intermittent gender expressions. Also, after physically transitioning, many transsexual people consider themselves men or women and no longer identify as a transsexual person.

60. **Transvestite:** This is a medical term, which has been used to describe a person who cross-dresses (dresses in clothes that a society considers to be stereotypical from the opposite *binary gender*). This person generally does not aim to live full time as the other gender. This is an old term, which is not used as it is considered derogatory by many people. See *cross-dresser*.
61. **Transition:** Is the process of changing one's gender presentation permanently to accord with one's internal sense of one's gender. It is usually the time when a person begins to live as their experienced gender. This can take the form of social transition (by coming out to people, asking them to use the right pronoun and name, changing the name legally, changing the way one looks, etcetera). Transitioning may or may not include *gender confirming medical treatment*.
62. **Two-Spirit:** This term refers to the historical First Nations People whose individual spirits were a blend of male and female spirits. It is also used by some people to describe people who are a blend of male and female. This is part of the *non-binary group*.

We want to conclude this chapter by making a number of final remarks. In order to encompass the largest population of gender variant individuals, we will use the broader term ‘transgender’ to refer to persons who wish to be socially recognized as a gender distinct from their assigned sex, with or without the desire for body modification. For reasons of order and containment, we will limit the content of this book to populations—however inconsistently defined—that have either transitioned from one gender to another or who present with a desire to do so.

We have aimed to be as consistent and comprehensive as possible with the use of terminology. However, the list is by no means exhaustive. Moreover, this book has been written by many authors with different professional backgrounds and from different countries. Consequently, there may be some variation in the use of terminology for which we apologise in advance. In a similar vein, it is highly likely that by the time this book is published, another term or set of terms will have emerged, rendering those described in this chapter irrelevant or even politically incorrect!

LEARNING POINTS

- Transgender (as an adjective) describes anyone whose gender identity, expression or behaviour is different from the assigned gender at birth.
- The transgender or trans* community is an extraordinarily diverse group of people.
- Sex refers to the biological and physiological characteristics that define men and women.
- Gender refers to the socially constructed roles, behaviours, activities and attributes that a given society considers appropriate for men and women.

- Sex is often thought of as static, whilst the concept of what gender is continues to develop and evolve.
- Many people feel their gender does not fit in a binary model of male or female.
- An increasing number of countries allow passports to have a non-binary gender marker, which may cause problems with international travel.
- Not all people who identify as transgender wish to change their bodies with hormonal treatment and gender confirming surgery.
- There are many countries, which have a social system that incorporate people who adopt a gender role different to their biological sex.

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Chapter 2

THE PREVALENCE OF BEING TRANSGENDER: ESTIMATING THE SIZE OF THE TRANSGENDER POPULATION

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OVERVIEW

This chapter discusses how common it is to identify as transgender. Clinical studies have traditionally shown low prevalence rates of transgender people with more recent studies provide higher prevalence rates of transgender people than older studies. Clinical studies only provide data on transgender people who can and want to access transgender health services. In contrast, population studies have found considerably higher prevalence rates of transgender people than clinical studies. Population studies may be more reliable in facilitating true prevalence rates of transgender people in society. More tolerant societies provide higher prevalence rates of transgender people than less tolerant societies.

INTRODUCTION

The word “prevalence” is a frequently used epidemiological measurement in scientific and medical literature. It defines the proportion of a population who have a condition, or a specific characteristic. Prevalence is calculated by comparing the number of people one wants to study with the total number of people in the pool. This is usually expressed as a percentage (%) or as the number of cases per 10,000 or 100,000 people. Although prevalence in medicine and psychology has usually been used to define illness or risk factors, it has also been used to define sexual orientation (number of people who are gay, straight or bisexual) (Aspinal et al., 2009) and gender diversity (number of transgender people) (Arcelus et al., 2015).

Estimating the number of transgender people in a given population can be extraordinarily complicated. Although prevalence studies of this population may be of benefit to health service providers and planners (in order to estimate the number of people who may require access to transgender health services), it also maintains the pathologisation of transgender people in society (as it can be viewed as something different to the norm which requires investigation).

THE COMPLEXITIES OF FINDING OUT ABOUT PREVALENCE RATES

The World Professional Association of Transgender Health's (WPATH) Standards of Care (Coleman et al., 2012) highlights that to calculate prevalence rates of transgender people in society presents enormous difficulties, due to the differences in cultural manifestation of gender behaviour. It is because of this that researchers who have studied this subject have focused on the most easily counted subgroup, namely those who present for gender-transition-related care at specialist gender identity clinics. Consequently, many prevalence studies published in this field have their origins in the Western world and select a very specific population. When reading prevalence studies, we need to keep the following factors in consideration:

- *The terminology used to describe the subjects studied:* One of the main difficulties in undertaking epidemiological studies for any subject relates to changes in terminology over the years. This is also true for studies looking at transgender people. For example, studies based on clinical settings have used a psychiatric diagnosis to define the population, such as Transsexualism (as per the International Classification of Diseases and Health Related Problems version 10) (ICD-10, WHO, 1992) or Gender Identity Disorder in adolescents or adults (as per the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders) (DSM IV, APA, 2000). The diagnosis and the terminology used to define transgender people have evolved over the years. Since the original definition by Benjamin et al. (1966), different terms and diagnoses have been used. For example, when analyzing changes in prevalence over the years we need to look at studies using different terminology and diagnoses, as these have changed considerably. In doing so we could question the validity of comparing studies looking at people with a specific identity, such as a transgender identity, with studies using a diagnosis, such as transsexualism. Therefore, when reading epidemiological studies we need to question as to who the studied subjects are. Do they select every transgender person, or only transgender people attending a gender service and fulfilling a diagnosis at the time the study took place, or people who self identify as being transgender?
- *Studied period and country where the study took place:* The country where the study takes place, or the area of the country (city versus countryside) can affect the results of any epidemiological study. This is even more important when studying prevalence rates of people who are discriminated against by society or law, such as transgender people. More tolerant societies are likely to yield higher prevalence rates, as people feel more confident to identify themselves as transgender. The year when the study

takes place will also affect the results of epidemiological studies. The degree of tolerance towards transgender people has improved over the years in some countries. This has allowed transgender people to “come out” more easily and access transgender health services. A reflection of all of the above is the higher prevalence of transgender people found in more recent studies from more tolerant societies (Dhejne et al., 2014; Judge et al., 2014), when compared to the older ones (Pauly, 1968; Wålinder, 1967). Unfortunately, less tolerant societies report low prevalence rates of transgender people (Ahmadzad-Asl et al., 2010), which is unlikely to be an indication of the lack of transgender people in these societies.

- *Identification of the subjects studied:* How people are recruited into an epidemiological study will affect the prevalence rates found. For example, measuring the number of transgender people in society is not the same as measuring the number of transgender people accessing gender services or fulfilling a characteristic of being transgender. Different recruitment methods will capture different populations. Clinical studies will include those who are able and willing to access services, whilst population surveys will include a much bigger pool of people. A reflection of this is the high prevalence rates of gender variance found in population surveys (Gates, 2011; Kuyper and Wijsen, 2012; Reisner et al., 2014; Van Caenegem et al., 2015), compared to clinical studies (see for instance, De Cuypere et al., 2007; Dhejne et al., 2014). In addition, studies looking at people attending transgender healthcare services will provide higher rates of transgender people than studies looking at people who access gender confirming surgery. Furthermore, clinical studies will depend on the existence of transgender healthcare services and how accessible these are to those who seek any form of treatment. The large number of studies from the Netherlands, Belgium and Sweden is a clear example of this.

A study aiming at identifying the true prevalence of transgender people in society will need to use a method that allows the inclusion of every transgender individual in the studied population. This is easier said than done. Many transgender people may not be in contact with any transgender health service, as they may not be out to others or may not require any clinical service. Some may only use online forums as a support, or may live in their experienced gender only in the online world. Even online population surveys aiming at including transgender people may find that people are reluctant to express their experienced gender identity for fear of being outed and, in some countries, persecuted.

Therefore, when reading prevalence studies of transgender people in society, we need to keep in mind which population these studies include in order to make sense of their results. Clinical studies will only capture the top of the iceberg and they will underestimate the true prevalence of transgender people in society. Population survey studies are likely to capture a more realistic prevalence rate of transgender and gender non-conforming people. However, the results of these studies cannot be used for further development of healthcare services, as not every individual with a transgender identity will require the input of transgender healthcare services in the future. In other words, the literature on the prevalence of transgender highlights the importance of adhering to specific case definitions because the results can vary by orders of magnitude. Many clinicians and researchers in the field of transgender healthcare recommend standardized and routine collection of data on transgender status and gender identity (Collin et al., 2016).

SOME NUMBERS

For the last 50 years, more than 30 studies have investigated the prevalence of transgender people in different countries. The large majority of these studies are based on people attending transgender healthcare services. These clinical studies have used diagnostic criteria to define people, such as a diagnosis of Transsexualism or Gender Identity Disorder. We do not agree with the use of a mental health diagnosis to describe a transgender person, as such classification is pathologising and perpetuates stigma (we have made our position clear elsewhere. See for instance, Bouman et al., 2010; Richards et al., 2015). However, in order to review the literature, we need to use the terminology used in these studies. Some studies have argued that defining people by using a diagnosis strengthens their results, as they are able to capture a more homogenous group compared to studies that include people who self-identify as transgender.

CLINICAL STUDIES

Clinical studies only include people who have approached transgender health services for assessment and treatment, and/or are on cross-sex hormones and/or are referred for, or have undergone, gender confirming surgery (GCS). For reasons explained above, clinical studies have shown an enormous variation of prevalence rates ranging from 0.45 per 100,000 (Pauly, 1968) to 23.60 per 100,000 people (Tsoi, 1988).

Studies based on transgender people undertaking gender confirming surgery (GCS): The oldest epidemiological study provides a prevalence rate of 0.45 per 100,000 people (Pauly, 1968). This data was based on individuals who approached transgender health services in order to undergo gender confirming surgery (GCS). The author identified 2000 transgender women and 500 transgender men who had requested GCS from various transgender surgical providers in the US and calculated the prevalence by dividing these numbers by the total population of the US in 1968. More recent studies, also from the US, using similar data (which includes people referred for and people who have received GCS), describe very different prevalence rates. For example, Horton (2008) described prevalence rates of 39.5 per 100,000 for transgender women and 24 per 100,000 for transgender men. These are similar rates to previously reported studies (See for instance Conway, 2002, who reported a prevalence rate of 40 per 100,000). A Singaporean study, also using figures based on people undertaking GCS, found not very dissimilar data to the American studies, namely 23.6 per every 100,000 people in Singapore (Tsoi et al., 1988).

European studies using data of people referred for GCS provide lesser prevalence rates: 10 per 100,000 in Spain (Esteva et al., 2012); 4.28 per 100, 000 in Belgium (De Cuypere et al., 2007) and 16.6 per 100,000 in Sweden (Dhejne et al., 2014). The difference between the American/Asian and European results is likely to be due to the type of health system available in these countries (whether private or state funded).

Studies based on transgender people referred to transgender health services: The vast majority of the clinical studies have focused on individuals referred to transgender health services, regardless of whether people were on treatment or not. These studies have used this information to calculate prevalence rates in the country. Most of them have been conducted in

Europe and provide prevalence rates varying from 0.45 (Wålinder et al., 1971) to 3.88 (Gómez-Gil et al., 2006) per 100,000 people. There are a few studies which have taken place outside Europe and the US. A Japanese study found prevalence rates similar to European studies, namely 3.97 per 100,000 for transgender women and 8.20 per 100,000 for transgender men (Baba et al., 2011). An Iranian study reported much lower prevalence rates: 0.69 per 100,000 for transgender women and 0.74 per 100,000 for transgender men (Ahmadzad-Asl et al., 2010). Several studies have focused on the number of transgender people, who are on cross-sex hormone treatment. They provide prevalence rates per 100,000 people of 1.22 to 2.77 (Eklund et al., 1988); 4.42 (Bakker et al., 1993); 8.05 (Van Kesteren et al., 1996) and 6.77 (Judge et al., 2014).

In order to make sense of all these numbers, a recent study has summarized and analyzed the data of all the published studies that use the diagnosis of transsexualism (ICD-10, 1992; APA, 1987). This is a very specific criterion, which was chosen as most studies (whether those looking at people attending transgender health services, on cross-sex hormones or referred for GCS) define the population based on a diagnosis using the classification criteria of the International Classification of Diseases and Health Related Problems (ICD-10) of the World Health Organization (WHO) and the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association. This study takes into consideration when the study took place and which population was used. It found that the prevalence of people fulfilling the diagnosis of transsexualism per 100,000 was 4.6, or 1 in every 21,739 individuals. For transgender women it was 6.8 per 100,000, or 1 in every 14,705 individuals, and for transgender men, 2.6 per 100,000, or 1 in every 38,461 individuals (Arcelus et al., 2015).

This study also looked at whether prevalence increases over the years. Taking into consideration the biases discussed above (such as the changes in terminology over the years, the time and location of the studies, type of treatments and healthcare setting), there is a clear and significant increase in prevalence rates over the years. Countries using the same database over different years have reported an increased prevalence of individuals attending transgender health services, receiving prescribed cross-sex hormones, and/or applying for GCS (Eklund et al., 1988; Bakker et al., 1993). Figure 2.1 shows a summary of the overall prevalence rates (per 100,000 people) of the studies reviewed in this section.

Prevalence According to Age and Gender

Most studies looking at prevalence rates of transgender people attending transgender health services have found that transgender women are more prevalent than transgender men (for a review, see Arcelus et al., 2015). This is even more pronounced when one looks at the older population, where the overwhelming majority of transgender people are female (Bouman et al., 2016). Studies looking at transgender youth found similar number of transgender boys and girls in the population studied (Aitken et al., 2015; Arcelus et al., 2016). Very few studies have found the opposite. One study from Poland and one study from Japan reported more transgender men than women in their population sample (Godlewski et al., 1988; Baba et al., 2011). The reasons for this remain unclear.

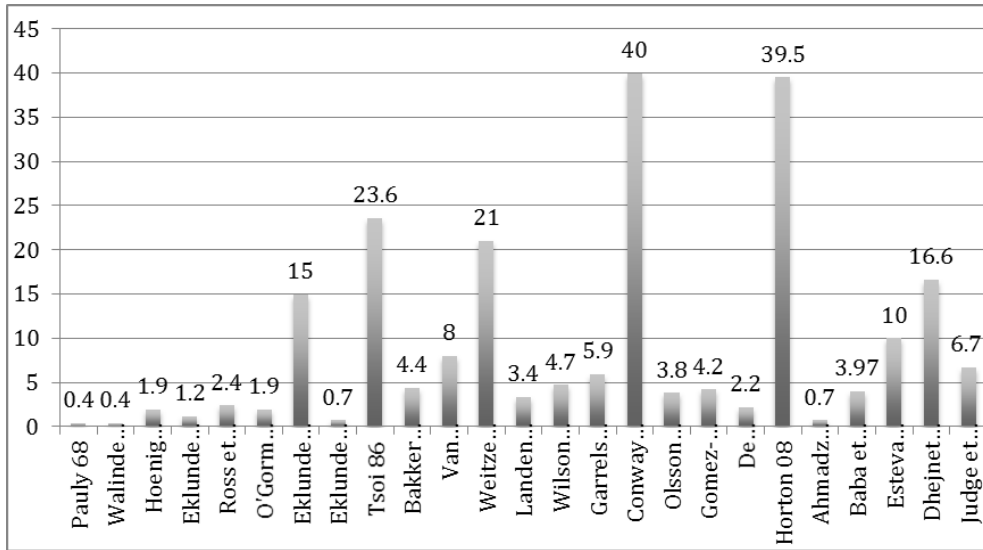


Figure 2.1. Prevalence of transgender people attending transgender health services per 100,000 people.

POPULATION SURVEYS

As discussed above, not every transgender person wants to have medical or surgical treatment or wishes to access transgender health services (Bockting et al., 2008). Therefore, many transgender people will not be in contact with any services and, thus, clinical studies will not capture this population. More recently, studies have tried to take this into consideration by measuring prevalence rates of transgender identity (instead of transgender people) in the community, using population surveys. It is hoped that by doing so such studies will include people who are not in contact with health services. An American study, which included 28,662 adults aged 18-64 years asked the question whether participants considered themselves to be transgender. The study found that five people per 1,000 replied affirmatively, suggesting a prevalence of 500 per 100,000 (Conro et al., 2012).

Another recent and interesting study from the US focused on young people only. They asked 7,000 youths to describe their gender assigned at birth and their gender identity. Out of the studied population, 0.33% (or 330 per 100,000 people) described incongruence between both (Reisner et al., 2014). Finally, two European studies, one from the Netherlands (Kuyper and Wijzen, 2014) and one from Belgium (Van Caenegem et al., 2015), investigated prevalence rates of gender incongruity through an online survey. The fact that both countries are considered tolerant societies may have helped in gathering more honest answers from people. The first study included more than 8,000 people aged 15 to 70 years old. They found that 4.6% (460 per 100,000) of people assigned male at birth, and 3.2% (320 per 100,000) of people assigned female at birth, reported an 'ambivalent gender identity' (defined as equal identification with other sex as with sex assigned at birth). Regarding an incongruence between their assigned gender and their gender identity, the study showed that 1.1% (110 per 100,000) of people assigned male at birth and 0.8% (80 per 100,000) of people assigned female at birth reported an 'incongruent gender identity' (defined as stronger identification with other sex than with sex assigned at birth).

The Belgian study reported that out of the 1,812 people they invited to participate, gender ambivalence was present in 2.2% (220 per 100,000) of people assigned male at birth and 1.9% of (190 per 100,000) people assigned female at birth. The study found that 0.7% (70 per 100,000) of people assigned male at birth and 0.6% (60 per 100,000) of people assigned female at birth reported an incongruence between their assigned gender and their gender identity. The second part of the study, which focused on 2,472 sexual minority individuals, found higher prevalence rates of gender ambivalence and incongruity of gender amongst this specific population: 1.8% (180 per 100,000) and 0.9% (90 per 100,000) in people assigned male at birth and 4.1% (410 per 100,000) and 2.1% (210 per 100,000) in people assigned female at birth, respectively. Figure 2.2 shows a summary of the survey population studies of people who self-defined as gender incongruent.

The increase in prevalence of people who identify as transgender in the last decade is likely to be due to a number of interactively linked factors: the increased visibility of transgender people on television and in cinema, (such as celebrities like Chaz Bono and Caitlyn Jenner, the TV-series *Transparent*, and movies like *Boys Don't Cry*, *Dallas Buyers Club*, *Transamerica* and *The Danish Girl*, to name a few. Their screening makes being transgender enter societal conscience as an increasingly mainstream phenomenon and is likely to contribute to at least a partial de-stigmatization of being transgender); the wide availability of information on the Internet and other communication channels about transgender people, which also is likely to contribute to de-stigmatization; the increased awareness of the availability of various medical treatments (Coleman et al., 2012; Wylie et al., 2014) and the development of societal tolerance towards transgender individuals in Europe and some other parts of the world (FRA, 2014; Keuzenkamp & Kuiper, 2013). Moreover, as being transgender enters societal conscience, more people will reflect on their assigned and experienced gender and some may feel an incongruence and, therefore, possibly question their assigned cisgender status, which had previously always been taken for granted.

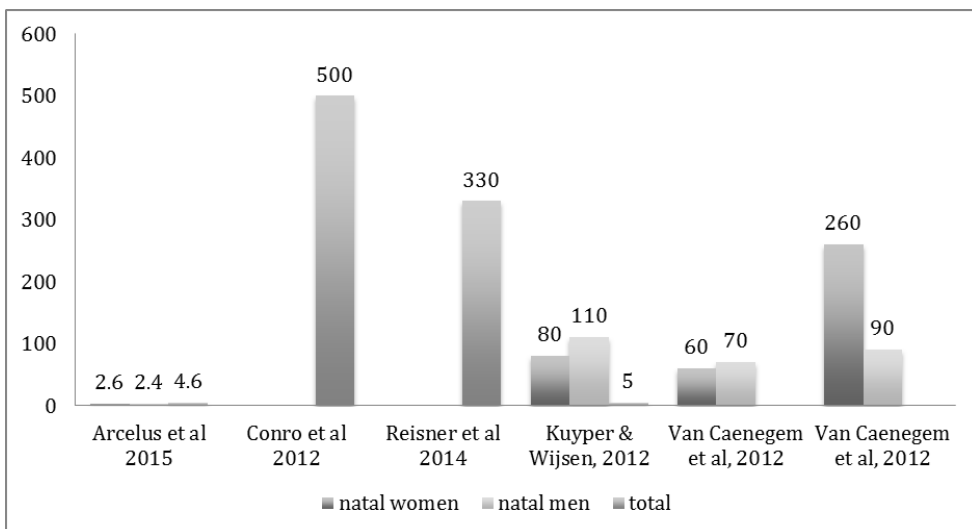


Figure 2.2. Survey population studies of people who self-define as gender incongruent per 100,000 (compared to clinical studies of people with a diagnosis of transsexualism - Arcelus et al., 2015).

The percentages of people reporting ambivalence and incongruence with their gender identity in the aforementioned population studies represent millions of people globally and highlight the need to take this seriously. This also clearly shows the existence of people who explicitly identify as non-binary, that is, those people who identify and/or present in a way, which is outside the gender dichotomy of man/woman. It remains unclear, however, how many people will decide to seek assessment and treatment at transgender health services (Bouman et al., 2016).

OTHER PREVALENT STUDIES

There are also studies, which have collected information regarding the number of transgender people in a given population by accessing information from Governmental organizations, such as virtual statistics or changes of gender marker in the passport (Dhejne et al., 2014; Olsson & Möller, 2003; Veale, 2008; Weitze & Osburg, 1996). Some of these studies look at the number of people per population requesting a legal change of their gender status, often after gender confirming surgery (Olsson & Möller, 2003). Others look at the number of people requesting a change of gender marker in their passport without any medical documentary evidence, which is only possible in some countries, such as New Zealand (Veale, 2008). The prevalence found in these studies ranges from 2.1 to 16.6 per 100,000 people (Dhejne et al., 2014; Olsson & Möller, 2003; Veale, 2008; Weitze & Osburg, 1996).

CONCLUSION

Prevalence rates of transgender people from population studies are considerably higher than those from clinical studies. The two types of study include different groups of people, as not everyone who identifies as transgender will decide to seek gender-related treatment and, therefore, present to transgender health services. Transgender people may, however, still decide to do so at some point in the future. The high prevalence rates of people reporting gender incongruity in population studies may explain the significantly increasing number of people referred to transgender health services in Europe and North America (Aitken et al., 2015; de Vries et al., 2015).

The majority of the studies, which aim to estimate the prevalence of transgender people in society, were conducted in Western countries, particularly in Europe. A more open and egalitarian society may facilitate undertaking this type of research. The majority of the prevalence studies used data from transgender health services and can only provide prevalence rates of transgender people who are able and want to attend transgender health services. The high prevalence rates found in many population studies suggests that a transgender identity is far more common than clinical studies have shown so far. A tolerant and civil society, where everyone is treated equally, will not only facilitate appropriate and necessary access to healthcare for transgender people who wish to do so, but will also allow people in general to question their gender identity and consider how to express this. This can only be beneficial to both individuals and to society as a whole. A ban on allowing people to express their gender identity may manifest itself in individuals as distress and profound

unhappiness. Many people, who have to hide their gender identity, do not achieve their full potential. Many older people in particular, who we meet in our clinical practice, wish they could have transitioned when they were much younger.

There are a limited number of reports regarding transgender people from developing countries. This may simply indicate that, whilst transgender people in those countries have access to transgender health services, no epidemiological studies have been undertaken. Alternatively, it may also indicate a lack of transgender health services due to lack of resources or, possibly, also due to a lack of tolerance towards gender diversity in some cultures.

This review can only conclude that estimating how common being transgender is in our society is currently not possible. It may take a long time for societies to become fully accepting of individuals with gender non-conformity and, until then, it is unlikely that we will find more precise estimates of the transgender population, both per country as well as globally. Although prevalence data may only matter for transgender healthcare services' development and delivery, it may also increase awareness and empowerment of transgender people, knowing that they are part of a large group. This will allow normalizing a transgender identity in our society and help people to develop a strong sense of belonging, which is vital for all of us.

LEARNING POINTS

- Current clinical studies from more tolerant societies provide higher prevalence rates of transgender people than older studies.
- More recent studies provide higher prevalence rates of transgender people than older studies.
- Population studies have found a considerably higher prevalence rate of transgender people than clinical studies.
- Clinical studies can only provide data on transgender people who can and want to access transgender health services.
- Population studies may be more reliable in facilitating true prevalence rates of transgender people in society, but do not provide information as to the number of people wanting treatment and support from transgender health services.
- It is impossible to know the true number of transgender people in society.
- This is unlikely to change until society truly accepts gender diversity.

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Chapter 3

HISTORICAL BACKGROUND AND THEORIES REGARDING THE CAUSES OF BEING TRANSGENDER

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OVERVIEW

This chapter gives a brief historical overview of transgender people as well as (outdated) psychological theories and the development of medical treatment for transgender people. The main content of this chapter discusses various biological, psychological, social and cultural factors, which are thought to play a role in the development of being transgender. In particular, with regards to biological factors family studies, brain studies, hormonal studies and gene studies are described.

INTRODUCTION

In this chapter we shall look at various biological, psychological, social and cultural factors, which are thought to play a role in why some people's gender identity does not match their assigned gender. But before discussing these, a very brief overview of the topic of transgender people and its treatment throughout history is described.

HISTORICAL BACKGROUND

Transgender People in History

Descriptions of the adoption of varying gender roles have been reported throughout history and across cultures. As early as the fifth century BC, Herodotus, a Greek historian, described the disease of the Scythians (*morbus feminarium*), which was thought to be divine

retribution for their pillaging of the temple, in line with his view of diseases as being from divine causes (Thomas, 2000). The sufferers were described as follows:

“Their beard falls off; their genital organs atrophy; their amorous desires disappear; their voice becomes feeble; their body loses its force and energy, and at last they come to a condition where they partake of feminine costume, and assimilate to women in many of their occupations.” (Beard, 1886)

Hippocrates, a Greek physician and by many considered one of the most outstanding figures in the history of medicine, also lived and practised in the fifth century BC. Hippocrates described transgender women as Anandrii, and believed the disease was due to excessive riding on horseback. The history of transgender men has perhaps been generally less visible, although there are many accounts of females assigned at birth living as men, working and marrying without attention, sometimes only found to be females assigned at birth at death and, at other times, suffering great adversity and even death upon discovery. During the American Civil War (1861–1865) people assigned female at birth are known to have worn what was traditionally men’s clothing and fought as soldiers. Many may have worn men’s clothes as this was their only means of fighting and participating in the war effort. Some of them may have been transgender men and continued to live as men throughout their lives. There are many other people, male and female, some famous and others less so, who are thought to have identified as transgender throughout history (for further reading see Lobdell, 2011; Stryker, 2008).

Equally, there are many more examples across the world and amongst different cultures of gender role change (Nanda, 2008), such as the *Mujerados* of the Pueblo Indians of New Mexico, the *Hijras* of India, the Samoan *Fa’afafine* and Native American/First Nations “Two-Spirit People” (an English term that emerged in 1990 out of the third annual inter-tribal Native American/First Nations gay/lesbian American conference in Winnipeg, Canada). These encompass wide variations in social gender role and sexuality among the many varied groups, of which there are many descriptions (Lang, 1998). In Thailand the term “Kathoey” was traditionally used to describe gay and effeminate cisgender men who might be understood to be transgender in other cultures. It is now most commonly used to refer to transgender women. There are complex reasons why there may be a greater percentage of transgender individuals in Thailand than probably anywhere else in the world. These include different beliefs around, and attitudes towards, biological and assigned sex and gender as well as easy access to cross-sex hormones and gender-confirming surgery without the requirement for any psychological evaluation. In Iran, the Qur’an is understood as forbidding homosexuality which may be punishable by death, whilst changing one’s gender is deemed acceptable, and this may explain why more gender-confirming surgery is said to be performed in Iran than any other country outside of Thailand (Alipour, 2017; Ellison, 2008). The phenomenon that is transgender is present in all cultures and cuts through all social strata in society. Transgender people have always been present and they live in every continent of our globe, with their social, cultural and religious backgrounds as varied as the colours of the rainbow.

PSYCHOLOGICAL THEORIES

Early psychoanalytical theories included neurosis in relation to Oedipal concerns, castration complexes and faulty identification (Fenichel, 1930; Segal, 1965). Many transgender people were subjected to electroshock treatment or other aversion therapies, when psychoanalysis failed to change their experienced gender (Allison, 2010). Other early theories concerned learning and development, such as the influence of parents' wish for an opposite sex child (Stoller, 1964) or social gender identity development (Money et al., 1957). These theories have also been found to have little evidence to support them and much of the research done by Professor Money was later discredited. Attempts to treat people with psychological treatments were unsuccessful and individuals, therefore, frequently sought medical treatments rather than psychological therapy.

MEDICAL TREATMENT OVER THE YEARS

The medical treatment of transgender individuals has been undertaken for nearly one hundred years with considerable medical advancements over this time. Norman Haire, a gynaecologist who was a campaigner for sexual reform and promoted birth control, reported the case of Dora-R of Germany in 1921 who, under the care of Magnus Hirschfeld, a German sexologist and advocate for sexual minorities, underwent surgical transition between 1921 and 1930. Hirschfeld introduced the term "transsexualismus" in 1923 and in 1930 supervised the second case to undergo genital reassignment surgery, Lili Elbe of Denmark. The movie *The Danish Girl*, which received four Academy Award nominations, came out in 2015 and was based on the life of Lili Elbe and her wife Gerda Wegener.

David Oliver Caudwell, an American sexologist, introduced the term "transsexualism" in 1949 for those wishing to change physiological sex and he distinguished between biological and psychological sex. However, he regarded surgery as an unacceptable response and advocated that transsexualism be seen as a mental disorder (Murjan & Bouman, 2015).

Harry Benjamin, an American endocrinologist and sexologist, began treating patients in 1948 using Premarin, an oestrogen which had been introduced in 1941. He involved psychiatrists, electrologists and surgeons and formed the Harry Benjamin International Gender Dysphoria Association which published its first guidelines regarding "the Hormonal and Surgical Sex Reassignment of Gender Dysphoric Persons" in 1979 (HBIGDA, 1985). The organisation is now called the World Professional Association for Transgender Health (WPATH) and introduced its seventh version of the Standards of Care (SOC) in 2012. "The overall goal of the SOC is to provide clinical guidance for health professionals to assist transsexual, transgender, and gender-nonconforming people with safe and effective pathways to achieving lasting personal comfort with their gendered selves, in order to maximize their overall health, psychological well-being, and self-fulfilment" (Coleman et al., 2012) (For more information about Standards of Care see Chapter 16 by Fraser & Knudson).

WHY DO SOME PEOPLE IDENTIFY AS TRANSGENDER?

The real answer is that we don't know. In spite of many studies looking into this phenomenon, one sole reason (or aetiology) as to why a person identifies their gender differently from the one assigned at birth, has not been found. It is generally accepted that there are different factors, which influence the development of someone's identity, including their gender identity. These factors include biological, psychological, social and cultural ones, which interact with one another. There have been several hypotheses regarding the aetiology of identifying as transgender, and some of these theories and research findings will be discussed next.

BIOLOGICAL THEORIES

Studies aimed at providing a biological explanation regarding the aetiology of being transgender have focused on three main areas: studies looking at family members of transgender people; those looking at their brain structure and studies investigating the role of hormones.

Family Studies

A Spanish study published in 2010 suggests that siblings of a transgender person are more likely to be transgender than siblings of a cisgender person. This likelihood is higher for brothers than sisters and for siblings who have a transgender sister (who was assigned male at birth) than those who have a transgender brother (who was assigned female at birth) (Gómez-Gil et al., 2010). These findings have to be put into context, as the overall chance of someone with a transgender sibling being transgender remains very small (approximately 1/200, or 0.5%). These findings, however small, may point towards a biological explanation for being transgender, although, as for most family studies, the influence of the family environment cannot be ruled out. The same Spanish group of researchers also looked at the birth order and ratio of brothers to sisters of transgender people (Gómez-Gil et al., 2011). The study found that the incidence of late birth order in their Spanish transgender sample was higher than in the general population, but this only applied to transgender people who were sexually attracted to people who were assigned the same gender at birth. In other words, this only applied to transgender females sexually attracted to females and to transgender males sexually attracted to males. There are other studies that reported similar findings (for instance see Blanchard et al., 1995, 1996; Poasa et al., 2004; Tsoi et al., 1977). The Spanish study also found that transgender females had a higher than expected proportion of male siblings, but again, this only applied to transgender females sexually attracted to females. Although some of these findings were not replicated in other studies (Blanchard & Sheridan, 1992; Green, 2000; Zucker et al., 1997, 1998), these studies suggest a biological explanation as to why a person's gender identity and assigned gender may not match.

Brain Studies

Before describing the findings of brain studies of transgender people, we will describe brain differences according to gender in the cisgender population. Studies looking at brains describe how differences in brain form, structure, connectivity and function between men and women are thought to determine differences in behaviour, psychological function, and cognitive performance on certain tasks.

The cerebral cortex is the brain's outer layer of neural tissue in humans and other mammals. The brain's outer layer plays a key role in memory, attention, perception, awareness, thought, language, and consciousness.

The human cerebral cortex is 2 to 4 millimetres (0.079 to 0.157 in) thick and is composed of grey matter, consisting mainly of cell bodies and small vessels. Underlying the cerebral cortex is the white matter, which consists mainly of the white substance (myelin) that surrounds the ending of the nerves. White matter actively affects how the brain learns and functions.

Men have a larger brain volume than women and this is only partly due to their larger body size (Luders & Toga, 2010). Boys and girls show differences in the development of the grey and white matter volume of their brain over the course of puberty (Giedd et al., 2012), and sex differences in the ratio of brain tissue compartments have been reported (Luders & Toga, 2010). Cortical thickness is generally higher in women than in men (Luders et al., 2006). Under the cerebral cortex lies the amygdala, which is formed of two almond-shaped structures of densely packed brain cells deep within the brain. The amygdala has been shown to perform a primary role in the processing of memory, decision-making, and emotional reactions. The amygdala is larger in men and has a higher density of androgen than oestrogen receptors (Halpern, 2012). Another major component of the brain is the hippocampus, which is a small, but very important, region as it is thought to be the centre of emotion, memory, and the autonomic nervous system. The autonomic nervous system is the part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, heartbeat, and digestive processes. Portions of the hippocampus are larger in women than men, with a higher density of oestrogen than androgen receptors (Halpern, 2012).

The two other structures in the brain, which are thought to play an important role in gender identity development, are the stria terminalis and the hypothalamus (see Figure 1). The stria terminalis is a structure in the brain consisting of a band of fibres running along the lateral margin of the ventricular surface of the thalamus. Serving as a major output pathway of the amygdala, the stria terminalis runs from its centromedial division to the ventral medial nucleus of the hypothalamus. The hypothalamus is a portion of the brain that contains a number of small nuclei with a variety of functions. One of the most important functions of the hypothalamus is to link the nervous system to the endocrine system via the pituitary gland (hypophysis).

Differences in Transgender People

The results of a series of post-mortem studies at the laboratory of Professor Dick Swaab in the Netherlands largely confirmed the hypothesis that transgender people's exposure to sex

hormones in the womb has led to a different sexual differentiation of the brain, with the body and genitalia developing in one direction, and the brain and gender identity in the other direction. Post-mortem anatomical studies have shown that some structures are feminised in transgender females. The size and the number of neurones of specific parts of the brain (the central part of the bed nucleus of the stria terminalis (BSTc) and the third interstitial nucleus of the anterior hypothalamus (INAH3)) of transgender females are more similar to cisgender females than males. These differences have been found to occur in transgender women irrespective of sexual orientation and cross-sex hormone treatment (Garcia-Falgueras & Swaab, 2008; Kruijver et al., 2000; Zhou et al., 1995).

Hormonal Studies

In the early development of the foetus, sex hormones interact with androgen and oestrogen receptors, and direct the sexual differentiation of the brain. Then, after birth and later during life, circulating sex hormones influence the brain further, which is often referred to as the activating effects of sex hormones. These hormone levels may fluctuate or change during puberty, the menstrual cycle, menopause and hormone treatment. A prominent hypothesis as to why a person is transgender is that exposure to sex hormones during prenatal development (in the womb) has led to atypical sexual differentiation of the brain, with the body and genitalia developing in the direction of one sex, and the brain and gender in the direction of the other sex (Kreukels & Guillamon, 2016; Swaab & Garcia-Falgueras, 2009). The time window for prenatal sexual differentiation of the genitalia precedes the time window for the sexual differentiation of the brain.

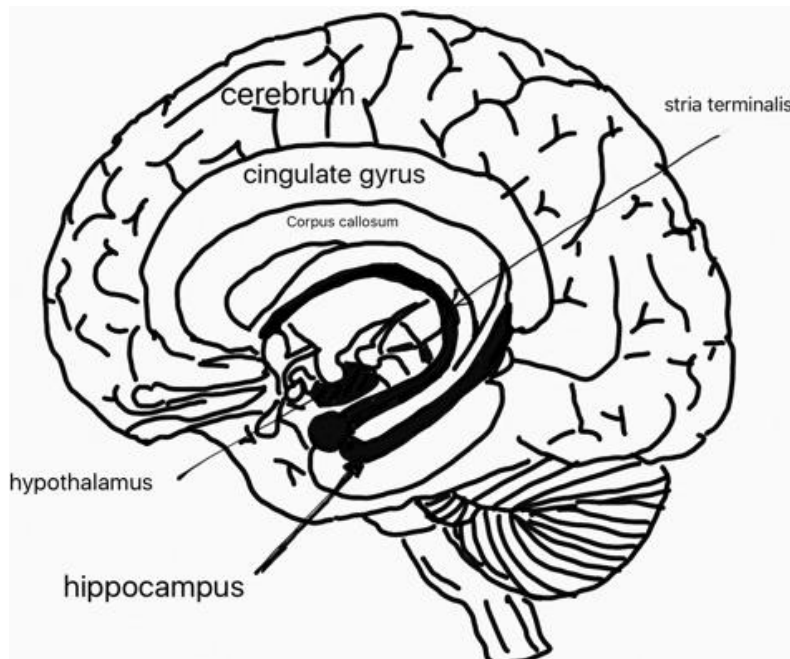


Figure 1. Structures of the Brain.

The organisation-activation theory, which has been developed from animal studies, aims to explain the relationship between hormones and brain development. The first landmark study by Phoenix et al. (1959) suggests that the exposure of prenatal androgens has an initial impact on the development of the brain (this part of the theory is called the organisation). The brain is then activated in puberty under the influence of sex hormones (this part of the theory is called the activation). The study by Phoenix et al., in 1959 showed that when guinea pigs, who were pregnant with female offspring, were injected with testosterone, their new born female guinea pig showed more typical male sexual behaviour (i.e., mounting) and less typical female behaviour (i.e., lordosis (back arched downward)) when mating. These effects were permanent. Testosterone was said to be organising the tissues that mediated the sexual behaviour. This theory has been updated by more recent research from Arnold (2009) who recognizes the important contribution of the X and Y genes in producing and reducing sex differences in mammals. It is important to realise that gender identity in humans is much more complex and, whilst there is an increasing amount of research showing that the formation of gender identity is greatly influenced by hormones, there is no single and clear explanation (Murjan & Bouman, 2015).

Gene Studies

Although the birth assigned sex (and gender) of a baby is usually determined by the external genitalia, which largely correspond to the sex chromosomes (XX for females, and XY for males), we know that in the first two months in utero the foetus develops gonads. A gonad is an organ that produces gametes; a testis or ovary. These gonads are bipotential in the sense that they can develop into either male or female gonads, thereby influencing further sexual development. Under the influence of Y-chromosomal Sry (sex-determining region Y) the gonads develop into testes, which produce testosterone. This sets in motion the differentiation of the male assigned foetus. In the absence of Y-chromosomal Sry the gonads develop into ovaries and in the absence of testosterone the foetus differentiates as assigned female. Failure to masculinise in chromosomal males and masculinisation of chromosomal females leads to the development of various intersex conditions. Some people may prefer the term “differences of sexual development” (DSD). Although distinct from being transgender, intersex conditions also give us information about the development of gender identity, as it has been found that they have high rates of gender dysphoria (Cohen-Kettenis, 2005). It can be seen that both intersex conditions and identifying as transgender represent conditions of atypical sexual and gender identity development, due to genetic and hormonal influences that affect the developing foetus at different developmental stages, with some overlap between the two (Andreazza et al., 2014; Savic, Garcia-Falgueras, & Swaab, 2010; Swaab & Garcia-Falgueras, 2009).

PSYCHOSOCIAL AND CULTURAL FACTORS

There is little evidence that psychosocial factors play a significant causative role in the aetiology of identifying as transgender, but they may interact with biological factors. Indeed,

being transgender may be causative for psychosocial factors, such as, for example, transgender children may experience lack of warmth or even rejection from their parents and others (Koken, 2009). There is evidence that a poor or absent parental relationship, being an adoptee, having older brothers, childhood abuse, and parental encouragement to express a child's desired gender rather than their assigned gender at birth are more common among transgender people (Veale et al., 2010a, b), however this does not mean they are aetiological factors for becoming transgender. There are also cultural factors which come into play, as societies differ in terms of their acceptance of transgender people, which can impact on well-being and levels of minority/marginalisation stress (Murjan and Bouman, 2015). While to some extent it is irrelevant as to why people are transgender (as we don't spend a great deal of time considering why people are cisgender), it is clear that our developing understanding of hormones and neurobiology has shaped our understanding of gender and transgender issues. It was in this context, as well as in the context of significant work done by transgender movements, that transgender people gained access to physical treatments such as cross-sex hormones and gender- confirming surgery and that damaging psychological and psychiatric treatments were discredited. The growing body of research showing evidence for the role of prenatal organisation of the brain in the development of transgender identities is also important in validating these identities (Bouman et al., 2016). Who you are is not about what others tell you, but something you determine for yourself. No one is able to tell another person how they feel on the inside regarding their gender.

LEARNING POINTS

- Transgender people have always existed throughout history and across cultures
- Medical treatment of transgender people has been undertaken for nearly one hundred years, with considerable medical advancements in this time
- Being transgender is likely to be a consequence of a multifactorial developmental process, which starts in the womb, in which key biological, as well as psychological, social, and cultural factors, play a role
- Exposure to sex hormones in the womb is likely to lead to atypical sexual differentiation of the brain, with the body and genitalia developing in the direction of one sex, and the brain and gender in the direction of the other sex
- Brain studies have shown that certain brain regions and structures in transgender people are closer to those of cisgender people with the same gender identity than to those of people with the same birth-assigned sex

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Chapter 4

DIAGNOSTIC CLASSIFICATION FOR GENDER IDENTITY-RELATED PHENOMENA OVER THE YEARS

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OVERVIEW

In this chapter the changes in the classification of gender identity-related phenomena over time in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) are discussed. As research about gender incongruence and gender dysphoria increasingly evolves, the terminology, placement, and criteria of gender dysphoria were repeatedly re-evaluated in successive versions of the classification manuals. Changes in various aspects of the diagnosis, however, were not only based on research. Social and political factors contributed to the way gender incongruence/gender dysphoria is perceived as well.

INTRODUCTION

When a person's gender identity does not match the gender assigned at birth, s/he or they may turn to health care professionals with an explicit wish for gender confirming medical intervention, including hormone treatment and/or surgery, or just to explore their feelings and examine suitable options. Because gender confirming genital surgery is not easily reversible, and the treatment has important consequences, a careful assessment procedure is necessary. The health care professional will collect information regarding the signs or symptoms the person is experiencing, as well as their treatment wish. This information will be used to come to a joint decision for subsequent steps in the care for the transgender person. A classification system assists the health care professional to determine which condition explains the signs and symptoms the person is experiencing and facilitates communication among professionals.

The Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association (APA), is a handbook that describes all known psychiatric and psychological conditions. The main purpose of the DSM is to help trained clinicians diagnose their patient's/client's mental disorder/psychological condition. It will assist them in case formulation and, ultimately, in creating an adequate treatment plan (APA, 2013, pg. 19). As the DSM is widely used, and not only in the United States of America, this chapter will focus on this diagnostic manual. Another diagnostic manual is the International Statistical Classification of Diseases and Related Health Problems (ICD) by the World Health Organization (WHO).

What is considered a mental disorder or condition changes over time. For example, no one would now consider it a mental disorder if people who are held captive as slaves desire to flee from their oppressor, but, in 1851, Dr. Samuel A. Cartwright argued differently (Singy, 2010). He described the phenomenon of *drapetomania*: a mental disorder causing slaves to flee/run away (Cartwright, 1851). Over time, our ideas about which behaviours, ideas, or emotion regulations are so deviant from the norm that they are considered a mental disorder, change. Also, as knowledge about certain mental disorders/conditions changes – for example as the result of scientific evidence – the way symptoms are described may also change. In this chapter we will describe the shifts made in the classification of gender identity-related conditions.

Over the years, different terms have been used to indicate gender identity-related phenomena. If one's gender identity (the feeling of being male or female, or another gender) is not in line with a person's gender assigned at birth (when someone, often a doctor, declares, usually shortly after birth: "It's a boy!" or "It's a girl!"), we will use the term *gender incongruent*. *Transgender* will be used as an umbrella term for all kinds of gender incongruence phenomena. It is a broader category than the well-known term of *transsexual*.

Each adult individual has a number of identities, such as a national, racial, or professional identity (Kroger, 2007). One of these identities is one's gender identity. Gender identity refers to the sense of oneself as male or female (Diamond, Pardo, & Butterworth, 2011) or as another gender (e.g., gender neutral or a-gender). Gender identity is usually expressed in a person's gender role. Gender role concerns behaviours, attitudes, and personality traits which, within a given society and historical period, are typically attributed to, expected from, or preferred by persons of one gender (see also Beek, Cohen-Kettenis, & Kreukels, 2016).

In most cases, gender identity and physical sex characteristics are congruent. A baby with male external genitalia will be assigned to the male gender, and experience himself as male. Incongruence between the physical characteristics does occur, however, in some cases. Intersex conditions (also known as Disorders or Differences of Sex Development) are congenital conditions in which the development of chromosomal, gonadal, or anatomical sex is atypical (Fausto-Sterling, 2000; Hughes et al., 2006).

The distress a person may experience as a result of an incongruence between gender identity and assigned gender, is known as gender dysphoria. People with gender dysphoria may have an intersex condition, but, mostly, have physical sex characteristics and sex chromosomes (XX or XY) which all correspond with each other.

In clinical psychology and psychiatry, individuals who experienced distress because they did not identify with their assigned gender were formerly known as *transsexuals* (WHO, 1992), or individuals with a *gender identity disorder* (GID; APA, 2000). Recently, the name of the diagnosis changed into *Gender Dysphoria* (APA, 2013) and, in the upcoming version

of the International Classifications of Diseases of the World Health Organization, the proposed term for the diagnosis is *Gender Incongruence* (Drescher, Cohen-Kettenis, & Winter, 2012).

For more than a decade, the diversity of gender identity and gender problems has received increasing attention in literature (e.g., Diamond et al., 2011; Fausto-Sterling, 2000). It has been argued that individuals with gender incongruence do not necessarily experience a complete cross-gender identity, and may not always need clinical attention (e.g., Diamond & Butterworth, 2008; Lee, 2001). The gender identification of individuals now covers a wide spectrum of gender identity labels, such as; *third gender*, *pan-/poly-/or omnigendered* or *gender fluid*, instead of *male* and *female* or even *transsexual*. These individuals may, or may not, experience distress and they may, or may not, want to live as “the other gender” (see Cohen-Kettenis & Pfäfflin, 2010, for an overview). In the case of conditions other than “classical” Transsexualism, treatment preferences may also differ from the standard hormone treatment and gender-related genital surgeries. Those who do not suffer from their gender incongruence are often called *gender variant* (see also Beek, Cohen-Kettenis, & Kreukels, 2016).

Until about 20 years ago, transgender phenomena were usually considered as psychopathological. Krafft-Ebing (1886) and Hirschfeld (1923) were among the first to describe individuals who wanted to live, or were living, as members of the other sex. Hirschfeld was also the first to refer people with gender dysphoria for surgery (hormone treatment only became available in the 1950s). Many medical and mental health practitioners criticized the use of hormones and surgery as a solution to gender identity problems (e.g., McHugh, 1992), as they considered gender dysphoria a severe neurotic, or a psychotic, delusional condition in need of psychotherapy and ‘reality testing’. The huge media attention over the transition of some persons, such as Christine Jorgenson (a transgender woman, whose gender assigned at birth was male, and who sought treatment in Europe and published her story), resulted in more psychiatric awareness of the concepts of gender dysphoria and the desire of people with gender dysphoria to transition. Interest in studying the phenomenon also increased in professional circles. It was acknowledged that sexual orientation (sexual attraction to persons of the male and/or female gender) and transvestism (cross-dressing often associated with sexual arousal) had to be distinguished from transsexualism (as it was then called), and in 1978 and 1980 transsexualism was included in the ICD-9 and DSM-III respectively. More recently the conceptualization of gender dysphoria (or gender incongruence, as it will probably be called in the ICD-11) as a psychiatric condition, has been challenged (Drescher, 2015; Drescher, Cohen-Kettenis, & Zucker, 2012) (see Table 1.).

OVERVIEW OF GENDER IDENTITY DIAGNOSES IN DSM AND RATIONALE FOR CHANGES

Below we will describe the main changes and rationales for the successive DSM editions. For each new edition, we will first describe the general changes in the DSM. This is followed by a description of the changes that were specific to the gender identity diagnoses. Figure 1 and Table 1 provide an overview of the diagnostic terms, codes, sections and main changes of

gender identity diagnosis across the different DSM versions (see also Beek, Cohen-Kettenis, & Kreukels, 2016).

Table 1. Overview of the Diagnostic Terms, Codes, Sections and Main Changes of Gender Identity Diagnosis across Different DSM Versions

DSM Version	Main Changes
DSM-III (1980)	First descriptive, symptom-based diagnosis for Transsexualism Inclusion of a Childhood Diagnosis
DSM-III-R (1987)	Inclusion of GIDAANT New placement in section: Disorder Usually First Evident in Infancy, Childhood, or Adolescence
DSM-IV (1994)/ DSM IV-TR (2000)	Placement in the new section "Sexual and Gender Identity Disorders" Adoption of the single diagnosis of GID that applied to children, adolescents, and adults Criteria became more similar for boys and girls
DSM-5 (2013)	Name change and different placement into new Section, "Gender Dysphoria" Narrower criteria for children Broader criteria for adults Focus on distress/dysphoria as the clinical problem and not on identity per se

Core Criteria

DSM-III – Introduction of Diagnostic Criteria for Transsexualism

The publication of DSM-III (APA, 1980) changed the way mental health professionals, as well as the public, viewed mental disorders. Unlike its predecessors, that reflected a clinically based model and provided no clear descriptions or diagnostic criteria, DSM-III viewed psychological or psychiatric disorders from a research-based medical model, in which diagnoses were clearly defined and consisted of specified symptoms.

While working towards publishing DSM-III, for the first time during DSM revision, field trials were conducted. These studies assessed the reliability of the draft criteria of high-prevalence disorders and the structure of DSM-III (APA, 1980, p. 467-472; Zucker & Spitzer, 2005). No systematic literature reviews or focused analyses were undertaken during the revision (Kupfer et al., 2002). Decisions on inclusion/exclusion of certain diagnoses and the exact criteria were made by individuals who were considered to be experts in the field (Zucker & Spitzer, 2005).

With regard to gender identity diagnoses, a diagnosis of 'Transsexualism' appeared for the first time in DSM-III under the diagnostic class of "Psychosexual Disorders" (APA, 1980). Three 'Gender Identity Disorders' were included in DSM-III: Transsexualism, Gender Identity Disorder of Childhood (GIDC), and Atypical Gender Identity Disorder. The essential feature of these diagnoses was "an incongruence between anatomic sex and gender identity" (APA, 1980, p. 261). For Transsexualism, this essential feature was reflected in the presence of two main criteria: A) "a persistent sense of discomfort and inappropriateness about one's

anatomic sex”, and, B) “a persistent wish to be rid of one’s genitals and to live as a member of the other sex” (APA, 1980 p. 261-262). Other criteria were that this “disturbance” had to be continuously present for at least two years, that it was not due to another mental disorder (e.g., schizophrenia), and that it was not associated with a physical intersex condition (APA, 1980, p. 261-262).

One essential feature (criterion A) for the Gender Identity Disorder of Childhood was a strongly and persistently stated desire to be a boy/girl, or insistence that she/he is a boy/girl (depending on assigned gender of the child) (APA, 1980, p. 265-266). Another important feature (criterion B) for natal girls was a persistent rejection of female anatomic structures. Natal boys could either have a persistent rejection of male anatomic structures *or* a “preoccupation with female stereotypical activities” (APA, 1980, p. 266).

Another difference between girls and boys in the DSM-III criteria was that the B-criterion for girls relied on the girl’s denial that she had a female body (e.g., assertions that she “will not develop breasts” or “has no vagina,” APA, 1980), whereas, for boys, the B-criterion was focused more on dissatisfaction with having a male body (e.g., assertions that “his penis or testes are disgusting or will disappear,” APA, 1980, Bryant, 2007).

Bryant (2007) explains, based on archival research at the APA, that in earlier drafts of DSM-III’s GIDC criteria, it was attempted to use parallel language for boys and girls, but that this was not always possible and, in later drafts, the criteria started to differ slightly for boys and girls. This seemed to be the result of many letters, mainly from feminist mental health professionals, that were written to the Gender Identity Disorder Committee, questioning the inclusion of girls in the diagnostic criteria of the GIDC (Bryant, 2007).

DSM-III’s third Gender Identity diagnosis was the ‘Atypical Gender Identity Disorder’, which was a residual category for coding gender identity related conditions that did not fall under ‘Transsexualism’ or ‘Gender Identity Disorder of Childhood’.

With the publication of DSM-III, for the first time in history, there was a clearly described set of criteria/symptoms that could be used to make gender identity-related diagnoses. This provided a framework that later revisions of the DSM relied upon.

From DSM-III to DSM-III-R

In general, the major goal of DSM III-R was to “improve consistency, clarity, and conceptual accuracy of the DSM-III criteria, but to avoid changes lacking substantial research evidence” (Kupfer et al., 2002, p. xvi). The Working Group to revise DSM-III could rely on much more research than the Task Force of its predecessor, DSM-III (APA, 1987, p. xxvii).

DSM III-R provided three diagnoses for postpubertal individuals with severe ‘gender identity disorders’: ‘Transsexualism’, ‘Gender Identity Disorder of Adolescence and Adulthood, Nontranssexual Type’ (GIDAANT), and ‘Gender Identity Disorder Not Otherwise Specified’ (GIDNOS) (APA, 1987). For children, as in DSM-III, a diagnosis for Gender Identity Disorder of Childhood was included in DSM-III-R. The GIDNOS diagnosis could be used in the same way, for children as well as for adults, as the DSM-III diagnosis of ‘Atypical Gender Identity Disorder’: as a residual category for those who did not fit in the other gender identity categories. For the most part, the gender identity diagnoses in DSM-III-R remained similar to those in DSM-III. Only a few changes occurred. Firstly, the DSM-III category *Psychosexual Disorders* was eliminated, with many of the former diagnoses placed in DSM-III-R under a new category termed *Sexual Disorders*. In DSM III-R, gender identity disorder was placed in the subclass: *Disorders usually first evident in infancy, childhood or*

adolescence. The change in placement was driven by the prevailing, but incorrect, assumption that “gender identity disorders almost always begin in childhood” (APA, 1987, p. 424).

Secondly, a diagnosis of Gender Identity Disorder of Adolescence or Adulthood, Nontranssexual Type (GIDAANT) was included in DSM-III-R. The difference between Transsexualism and GIDAANT was defined by whether or not there was a two-year preoccupation with getting rid of one’s primary and secondary sex characteristics and acquiring those of the other sex (APA, 1987; Levine, 1989). In other words, when a person desired to undergo medical intervention to make their physical appearance (or characteristics) more congruent with their experienced gender, *Transsexualism* was the fitting diagnosis, while *Gender Identity Disorder of Adolescence or Adulthood, Nontranssexual Type* was applicable to people who did not wish to receive these interventions, or had only recently developed this desire (Bradley et al., 1991; Levine, 1989).

Another change from DSM-III to DSM-III-R was that in DSM-III-R schizophrenia or chromosomal or intersex conditions were no longer included as exclusion criteria (APA, 1987; Levine, 1989). DSM-III-R acknowledges that individuals can suffer from schizophrenia, or have an intersex condition, *and* be transsexual (Levine, 1989).

With regard to the GIDC diagnosis, differences between the criteria for boys and girls became more prominent: for girls, a “persistent and intense distress about being a girl” and a “stated desire to be a boy” were required; whereas for boys, a “persistent and intense distress” and “intense desire” to be a girl were required (APA, 1987). So, while girls had to verbalize the desire to be a boy, boys did not have to state the opposite. This led some authors to conclude that the criteria for boys had a lower threshold/were less strict than for girls (Bryant, 2007; Langer & Martin, 2004). Zucker (2010) notes that the opposite could also be argued: that the criteria for girls were less strict, because they lacked an intensity criterion.

From DSM-III-R to DSM-IV

In anticipation of the appearance of DSM-IV, several work groups were appointed by the APA to refine and develop diagnostic criteria. The main instructions were to be generally conservative and ensure that changes were derived only from a “careful analysis of relevant, well-conducted published studies or from a fresh examination of appropriate data bases” and that unsupported expert opinion should not be a sufficient basis for changes (Shaffer et al., 1989, p. 830). With these principles in mind, the Subcommittee on Gender Identity Disorders started work and reviewed the recent literature in the area of gender identity disorders. The Subcommittee suggested a number of changes. In DSM III-R the gender identity diagnoses were placed in the category *Disorders usually first evident in infancy, childhood or adolescence*. Although this was considered to improve the sensitivity to these problems of clinicians working with children, clinicians working with adults felt this placement was inappropriate for Transsexualism, because behavioural precursors of adult ‘Transsexualism’ are not always present in childhood (Bradley et al., 1991; Bradley et al., 1997; Shaffer et al., 1989). The Subcommittee concluded that a distinct diagnostic category, *Gender Identity Disorders*, should be created in DSM-IV (Bradley et al., 1991).

DSM-III-R’s diagnosis of Gender Identity Disorder of Adolescence or Adulthood, Nontranssexual Type (GIDAANT) was eliminated from DSM-IV (APA, 1994). The two main reasons for the elimination of GIDAANT were the lack of clarity of the boundaries between GIDAANT and Transsexualism, and a desire to uncouple the clinical diagnosis of gender dysphoria from criteria for approving individuals for sex reassignment surgery (SRS)

(Bradley et al., 1991; Bradley et al., 1997). “The diagnoses of GIDC and Transsexualism were collapsed into one overarching diagnosis, Gender Identity Disorder (GID), with different criteria sets for children versus adolescents and adults” (Zucker & Spitzer, 2005, p. 32).

The Subcommittee argued that the diagnostic criteria should be more comparable for boys and girls than they were in DSM-III-R (Bradley et al., 1991; Zucker et al., 1998). Therefore, the diagnostic criterion regarding the verbalized wish to be of the other gender became the same for boys and girls: “repeatedly stated desire to be, or insistence that he or she is, the other sex” (APA, 1987). Furthermore, the criterion of a verbalized or stated desire/insistence of a child to be of the other gender was no longer required for a diagnosis in DSM-IV, as clinical experience suggested that children often do not verbalize this wish, despite significant cross-gender identification (Bradley et al., 1991). Also, after reanalysing available datasets, it was concluded that the wish to be of the opposite sex should not be a distinct criterion, but rather just one of several behavioural markers of cross-gender identification (Zucker et al., 1998). While in DSM-III and DSM-III-R the main focus of the GIDC was on a cross-gender *identity*, in DSM-IV the main focus shifted towards cross-gender *behaviour*.

A newly added criterion to the GIDC diagnosis in DSM-IV was the D-criterion that stated: “The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning” (APA, 1994). This D criterion was added to about half of all DSM-IV diagnoses in response to critics who were concerned that previous DSM diagnoses were overly inclusive (Spitzer & Wakefield, 1999). The idea was to reduce the false positives by adding a specific criterion that implied distress or impairment (Spitzer & Wakefield, 1999). Regardless of this new D-criterion, some critics were concerned that, compared to the previous criteria, DSM-IV’s GIDC diagnosis still had a lower threshold for children, and that more children would, therefore, fulfil the diagnostic criteria than before (Haldeman, 2000; McGann, 2007). DSM-IV-TR (APA, 2000) was a text revision of DSM-IV and included no changes to the DSM-IV GID diagnoses.

From DSM-IV-R to DSM-5

The appearance of DSM-5 was preceded by six years of literature reviews, secondary analyses, research reports, draft versions published on DSM-5’s website for review, and field trials (APA, 2013, p. 56). Reviewing the research findings was critical for the DSM-5 taskforce, since the science underlying the publication of DSM-III was almost 50 years old and was outdated (APA, 2013, p. 61). One problem with previous DSM editions was that, due to too narrowly defined criteria, clinicians often relied on ‘Not Otherwise Specified’ (NOS) categories. DSM-5 replaced those NOS-categories with two other categories: ‘Other Specified’ and ‘Unspecified’. A clinician can use the category ‘Other Specified’ to describe a specific reason why a clinical presentation does not match the specified criteria. ‘Unspecified’ can be used when a clinician cannot clearly specify the reason why a clinical presentation does not fulfil the specified criteria (APA, 2013, p. 68-69).

With regard to the gender identity-related diagnoses, many changes occurred with the publication of DSM-5. This was driven by the influence of critics coming from several backgrounds (e.g., Bartlett et al., 2000; Meyer-Bahlburg, 2010; Hill et al., 2006; Vance et al., 2010; Winters, 2005). The main dilemma in DMS-5 was to reduce stigma, while securing access to care for those individuals who need it (Drescher et al., 2012; Zucker et al., 2013).

The name was changed from ‘Gender Identity Disorder’ to the less stigmatizing name ‘Gender Dysphoria’ (GD) (APA, 2013; Cohen-Kettenis & Pfäfflin, 2010; Zucker et al., 2013). It was the view of the DSM-5 Sub-working-group on Gender Identity Disorder that this name better reflects the core of the problem: namely, the suffering as a result of an incongruence between experienced and assigned gender. Furthermore, the diagnoses were placed in a separate section, Gender Dysphoria, unlike the placement in DSM-IV and IV-TR, separate from the Paraphilias and from the Sexual Dysfunctions. Based on evidence from a number of studies (e.g., Deogracias et al., 2007; Paap et al., 2011), the previous criteria A (cross-gender identification) and B (not feeling comfortable in the assigned gender) were combined. This was already suggested by the DSM-IV Sub-committee (Bradley et al., 1991), but was rejected by the APA for reasons unknown (Zucker et al., 2013). Furthermore, the terminology became less dichotomous (Zucker, 2013). While in DSM-IV, gender identity and gender role were considered to be dichotomous (either male or female), in DSM-5 these concepts are defined more broadly (Cohen-Kettenis & Pfäfflin, 2010; Zucker et al., 2013). Also, instead of *sex* the term *gender* is now used, as with the inclusion of individuals with an intersex/DSD condition, the term *sex* had become confusing. A duration criterion of six months (for gender dysphoria in children as well as adolescents and adults) was included to make a distinction between very transient GD and persistent GD (Zucker et al., 2013). The duration of six months was based on clinical consensus (Zucker et al., 2013).

With regard to the childhood diagnosis, DSM-IV’s GIDC criterion of “repeatedly stated desire to be [...] the other sex” was replaced by “a strong desire to be of the other gender” in DSM-5 (APA, 2013, p. 1075 appendix A). The A1 criterion in DSM-5 for GDC, “A strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one’s assigned gender) (APA, 2013), now became mandatory (though not sufficient to make a diagnosis), while this was not required in DSM-IV. This makes the DSM-5 criteria for Gender Dysphoria in Childhood more restrictive compared to its predecessor (APA, 2013, p. 1076 appendix A; Zucker et al., 2013) and “more transparent in its aim to identify children who are, without ambiguity, struggling with their gender identity” (Zucker, 2010). A *verbalized desire* was replaced by a *strong desire* to be able to include “children who, in a coercive environment, may not verbalize the desire to be of the other gender” (Zucker et al., 2013). Furthermore, two criteria referring to anatomic dysphoria were added.

Specifiers

In the subsequent editions of the DSM certain characteristics that were considered important for the diagnosis (at that time) could also be indicated by specifiers.

Sexual orientation. In DSM-III, a subtype of sexual orientation was used, which remained unchanged in DSM-III-R. The terms used (e.g., “homosexual” in case of a natal male, with a female gender identity, who was attracted to natal males), were experienced as offensive by transgender people, who felt that their gender identity was not acknowledged by these terms. Also, some clinicians appeared to be confused about whether the anatomic sex or gender identity should be used as the reference point (Bradley et al., 1991). In addition, being attracted to both genders (bisexual) was not included (Shaffer, 1989). The DSM-IV Subcommittee continued to use this specifier, as the subcommittee thought it was important

for “clinical management and research purposes” (Bradley et al., 1991), but changed the terms into: attracted towards males, females, both, neither, unspecified (Bradley et al., 1991; Bradley et al., 1997; Shaffer et al., 1989). In DSM-5 the sexual orientation specifier has been removed, because the specification was no longer considered to be valuable in a clinical setting (APA, 2013, p. 1076). See also Cohen-Kettenis & Pfäfflin (2010).

Intersex Conditions or Disorders/Differences of Sex Development. In DSM-III, people with an intersex/DSD condition were excluded from the diagnosis, which changed in DSM-III-R. In DSM-IV, this, again, became an exclusion criterion (C). Individuals with an intersex/DSD condition, who also had gender identity problems, could only receive a GIDNOS diagnosis (APA, 1994; Bradley et al., 1991). Despite the fact that there are differences between individuals with gender dysphoria, with and without intersex conditions, it was decided that the phenomenon was sufficiently similar in both groups to make a DSM-5 gender dysphoria diagnosis possible for people with and without intersex/DSD condition. To be able to make a distinction for clinical or research purposes, the specifiers “with DSD” and “without DSD” were introduced.

Post-transition. In DSM-5, a new specifier was added to include individuals who have undergone at least one somatic intervention or treatment that affirms their experienced gender (e.g., cross-sex hormone treatment) (APA, 2013, p. 1076). This implies that individuals who were once diagnosed with gender dysphoria can “lose” the diagnosis. Yet, for those who need a diagnosis for further reimbursement of medical or mental health care (e.g., cross-sex hormone treatment), this is still possible, if this specifier is used (Cohen-Kettenis & Pfäfflin, 2010; Zucker et al., 2013).

CONCLUSION

It is clear from the above that the conceptualization of Gender Dysphoria has changed considerably over time. These changes have not occurred without controversy. This is mostly due to the fact that there is still little evidence to support psychological and biological theories about gender dysphoria. The social and political climate has influenced ideas about gender dysphoria, as well. For instance, during the preparation of the ICD-11 many parties have put pressure on the World Health Organization (WHO) to take the diagnosis out of the mental health chapter. Once the ICD-11 is published, an interesting situation might emerge where Gender Dysphoria/Gender Incongruence is considered a mental health condition in the DSM (as are all diagnoses in this manual), but not in the ICD (which contains all known diseases and health-related problems). As the worldwide influence on health policy of the WHO is much larger than of the APA, it is conceivable that GD will be removed from the next version of the DSM. Also, some groups and individuals argue for the complete removal of a childhood diagnosis in the ICD-11 (see e.g., GATE, 2013; International Campaign Stop Trans Pathologisation (STP, 2013); Winter, 2014). The debate around the revision of the ICD gender incongruence criteria focuses on avoiding stigma (removal of the diagnosis) versus assuring access to care (retaining the diagnosis) (Drescher et al., 2012; Beek et al., 2016; Winter et al., 2016). At this point, it is unclear what the diagnosis of gender incongruence will look like in the ICD-11 and in future versions of the DSM, but the changes that occurred in

the DSM illustrate that people who were once considered as suffering from a mental disorder (e.g., homosexuality) may later be viewed as a normal variation of mankind.

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LEARNING POINTS

- A classification system assists clinicians to determine which condition explains the signs and symptoms a person is experiencing and facilitates communication among professionals, which is particularly important in multidisciplinary care, such as transgender care.
- Changes over time, in the way gender identity related phenomena are classified, reflect changes in how the condition is perceived.
- The conceptualization of gender identity related phenomena has been influenced by research evidence, as well as changing views on gender in society.
- In 1980, in the third edition of the *Diagnostic and statistical manual of mental disorders* (DSM-III; APA, 2013) the first descriptive, symptom-based diagnosis for ‘Transsexualism’ appeared.
- The current version of the *Diagnostic and statistical manual of mental disorders* (DSM 5; APA, 2013) contains one overarching diagnosis of gender dysphoria, with different criteria for children and adolescents/adults.
- The debate around the ICD-criteria for gender incongruence balances between the need for a diagnosis to assure access to care, and the avoidance of a stigmatizing diagnosis.

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Chapter 5

GENDER DYSPHORIA AND GENDER INCONGRUENCE IN CHILDREN

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OVERVIEW

Children who experience gender incongruence (GI) vary in their psychological characteristics, gender role and gender identity expressions. Gender Dysphoria (GD) is present when the incongruence between the assigned gender at birth and the experienced gender causes clinically significant distress and impairment in the child's functioning. Feelings of GD in childhood may persist into adolescence and adulthood, however, the majority of children will grow up without GD, and the most probable outcome will be that the child identifies as a gay or lesbian adult. Mental health professionals have not defined, to date, what the best clinical practice is with children who experience GI or GD, and the topic creates controversies and debates among clinicians, parents and professional associations. Should these children be treated psychologically? If so, from what age? Should they be allowed to live in the experienced gender? Should boundaries be made regarding their gender expression? This chapter focuses on pre-pubertal children with GD or GI, and aims to describe their clinical characteristics, psychological functioning, and what is known about their psychosexual development. Finally, the current treatment forms and counselling approaches will be described and discussed.

INTRODUCTION

One of the first things we are curious about when we hear of a newborn child is their *sex*. We wonder “is it a boy or a girl?” With this information, we generally start imagining about his or her future. In our culture, we expect that boys will have a greater preference for cars and show more rough and tumble play than girls, whereas girls will have a greater preference

for dolls and show more social interaction in play behaviour than boys. These expectations refer to the *gender role* of the child; behaviours, attitudes, and personality traits that are typically attributed to, expected from, or preferred in a boy or a girl in a given society or culture. At the same time, we expect that an assigned boy will identify and label himself as a boy, and an assigned girl will label herself as a girl, in the future. *Gender identity* (the experience of being male, female or a different gender) and gender role expressions are generally expected to be in line with the assigned sex. This is not surprising, since for most children, this is indeed the case. However, not all children go through a *normative* gender development. In some cases, children will not show gender role behaviours, interests and preferences and/or not have a gender identity that is congruent with their assigned sex. For example, an assigned boy may prefer playing with dolls or wearing a glittery shirt, or an assigned girl may have more stereotypical boyish interests and express to identify as one of the boys (Steensma, 2013).

Gender nonconformity or *gender incongruence* in behaviour should not be considered as atypical or as a pathological condition. There is nothing wrong with a girl not having the desire to be a princess and preferring to play with cars and trucks. The same is true for a boy liking pink clothes and classical ballet. Gender incongruence in behaviour and preferences in childhood may, in fact, be the expression of different meanings and may be transient and associated with different developmental pathways. Depending on the intensity, frequency and persistence, gender incongruence can be part of normative development for some children, but can be experienced as problematic for others who may be in need of clinical attention (Meyer-Bahlburg, 2010).

GENDER DYSPHORIA AND GENDER INCONGRUENCE IN CHILDHOOD

Children who do not identify with their assigned gender at birth, who show extreme and enduring forms of gender incongruence and, because of this, experience clinically significant distress, are referred to as having *Gender dysphoria* (GD) (APA, 2013). A diagnosis referring to gender identity problems in children is currently present in the two main manuals for the classification of mental and health disorders: in particular, in the fifth version of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; APA, 2013) as “Gender Dysphoria in Children,” as well as in the tenth version of the *International Classification of Diseases* (ICD-10; WHO, 1992), with the latter classification system currently being under revision. In the future ICD-11, the terminology will most likely be changed from “Gender Identity Disorder of Childhood” into “*Gender Incongruence of Childhood*” (Drescher, Cohen-Kettenis, & Winter, 2012).

According to the DSM-5 (APA, 2013), a diagnosis of GD in children can be made if a child experiences a marked distress due to the incongruence between one’s experienced/expressed gender and assigned gender, of at least 6 months’ duration. In particular, the child should express a strong desire to be of another gender (for example a boy saying, “*I want to be a girl*”) and/or express a strong statement to be another gender (for example a boy verbalizing, “*I am a girl*”). In addition, a child should express dislike for his/her sexual anatomy (*anatomic dysphoria*) and the desire for primary/secondary sex characteristics of the experienced gender. For example, a natal girl wishing she will grow a penis when older or a

natal boy hiding his penis between the legs to fulfil the desire to have female genitalia. Other criteria concern a preference for cross-dressing that is not restricted to play situations and, on the contrary, has a driven quality. For example, many parents of an assigned boy with GD describe that their sons manifested an urge to change into the sister's female clothes as soon as they are back from school and refuse to wear typical male clothing. Furthermore, children with GD manifest a strong preference for toys, games and activities of the other gender and like to adopt cross-gender roles in fantasy play (for example, an assigned boy who pretends to be one of the princesses from *Frozen*, or an assigned girl who wants to be *Luke Skywalker* in role play games). The majority of children with GD also tend to have playmates of the other gender, with assigned boys showing a strong affiliation with girls and avoidance of males as playmates and natal girls showing a strong affiliation with boys. At the same time, a strong aversion or rejection of stereotypical gender congruent roles, interests, preferences and behaviours is present. To complete the diagnosis of GD in the DSM-5, the experience and feelings described above should be accompanied with clinically significant distress or impairment in social, school, or other important areas of functioning.

PREVALENCE OF GENDER INCONGRUENCE AND GENDER DYSPHORIA IN CHILDHOOD

Currently, there are no formal studies available on the prevalence (the proportion of cases in the population with GD at any given time) of GD in childhood. However, by considering general population studies where gender nonconformity was measured in behaviour, it is possible to make an estimation of the prevalence. For example, studies where the Child Behaviour Checklist (CBCL; Achenbach & Edelbrock, 1983) was used. The CBCL is a widely used questionnaire measuring emotional and behavioural problems in children through parent report, and contains two items related to gender nonconformity: Item 5 (*"Behaves like the opposite sex"*) and Item 110 (*"Wishes to be of the opposite sex"*). Information from the Dutch childhood population shows that, in children, both items are more frequently endorsed by parents of assigned girls than by parents of assigned boys: *"Behaves like the opposite sex"* in 2.6% of the assigned boys and 5.0% of the assigned girls; *"Wishes to be of the opposite sex"* in 1.4% of the assigned boys and 2.0% of the assigned girls (Verhulst, van der Ende, & Koot, 1996). Similar results have been found in studies looking at the North American childhood population (Achenbach & Edelbrock, 1981; Zucker, Bradley, & Sanikhani, 1997). Therefore, gender nonconformity seems to be present in a small percentage of children and is more prominent in assigned girls than in assigned boys.

Interestingly, studies describing the distribution of sexes in referrals to gender identity clinics (*sex ratio*) have always reported higher numbers of referred assigned boys, compared to assigned girls. This does not, however, necessarily mean that GD is more prominent in assigned boys, but it may be a reflection of feminine behaviour in boys being less socially accepted. In other words, assigned girls generally seem to show more gender incongruence than assigned boys, but if assigned boys show gender incongruent behaviours, as this is less socially accepted, parents and/or caregivers tend to seek specialized care earlier than they do for assigned girls.

PSYCHOLOGICAL FUNCTIONING AND SOCIAL ACCEPTANCE

Studies regarding clinically referred children with gender incongruence, or GD, show that they experience psychological problems if they are compared with peers not receiving clinical attention (Bates, Bentler, & Thompson, 1973; 1979) and the general population of children (e.g., Cohen-Kettenis et al., 2003; Singh, Bradley, & Zucker, 2011; Steensma et al., 2014). Furthermore, studies and clinical observation show that these psychological problems are mainly of an internalized nature, instead of an externalized one (e.g., Bates, Bentler, & Thompson, 1973; 1979; Coates & Person, 1985; Cohen-Kettenis et al., 2003; Rekers & Morey, 1989; Steensma et al., 2014; Wallien et al., 2008; Zucker & Bradley, 1995). Internalized problems refer to those psychological conditions where distress is inner-directed, as happens in cases of depression, social withdrawal and anxiety. On the contrary, externalized problems are outer-directed and tend to generate discomfort and conflict also in the surrounding environment, as in cases of aggression or rule-breaking behaviours. However, vulnerability for psychological problems does not mean that all gender incongruent children struggle with emotional and behavioural problems. As shown in a recent summary by Zucker, Wood and VanderLaan (2014), there is a great variability between studies describing the proportion of children with GD having clinically significant problems (ranging from 12.5% up to 84%).

What Causes the Poor Psychological Functioning in Gender Incongruent Children, and Why Is There This Great Variability in Psychological Functioning?

One of the primary factors responsible for poor psychological functioning in children with GD seems to be societal acceptance. Studies indicate that social (in)tolerance toward gender non-conformity in behaviour, interests and preferences plays an important role in psychological functioning in these children (e.g., Ristori & Steensma, 2016). In fact, gender non-conforming behaviours tend to be evaluated negatively by other children (e.g., Carter & McCloskey, 1984; Levy, Taylor, & Gelman, 1995; Ruble et al., 2007; Signorella, Bigler, & Liben, 1993; Stoddart & Turiel, 1985). In addition, children with GD show poorer peer relations than their peers (e.g., Cohen-Kettenis et al., 2003; Zucker et al., 1997; 2012). So, poor quality peer relations, and being negatively considered by peers, are factors associated with a negative well-being and poor psychological functioning in children with GD (e.g., Cohen-Kettenis et al., 2003; Steensma et al., 2014).

With regard to the variability in psychological functioning, the intensity of social intolerance may also play an important role (Ristori & Steensma, 2016). For example, a recent study that compared children with GD from Canada with clinically referred children from the Netherlands showed a much higher prevalence of emotional and behavioural problems in the Canadian children than in the Dutch ones. In addition to this, the quality of peer relations was shown to be lower in Canada than in the Netherlands (Steensma et al., 2014). This underlines how the level of acceptance of gender nonconformity within a certain culture or environment seems to be one of the main factors explaining poorer psychological functioning in children with GD.

There are other factors that have also been considered when trying to understand the relationship between GD and psychological functioning in childhood, for example; the role of generic risk factors for psychopathology, such as parental psychopathology and social class background, or the role of having a poor psychological function which may be directly linked to the distress deriving from GD. However, evidence for these relations is still scarce and both models are under studied in comparison to other factors such as social (in)tolerance (Zucker et al., 2014).

Lastly, recent research has described a relationship between Autism Spectrum Disorders (ASD) and GD in children. Clinically referred children with GD have been found to present with more ASD diagnosis and features than one may expect from the prevalence in the general population (Glidden et al., 2016; Van der Miesen et al., 2016). For example, de Vries, Noens, Cohen-Kettenis, van Berckelaer-Onnes, & Doreleijers (2010) reported that, in a sample of 108 gender referred children, ASD was present in 6.4%. This percentage is significantly higher than the prevalence of 0.6–1% of ASD in the general population (e.g., Fombonne, 2005) and in children that are referred for other psychological problems (VanderLaan et al., 2014). In particular, children with GD were reported more frequently to have obsessional interests, which may be an indicator of ASD. However, it is still not clear how ASD and GD are related. Is GD an expression of ASD? Is ASD a symptom of GD? Or can both be present without being related to each other? Current research is trying to focus on these questions to better understand these relationships. There is more information about ASD and transgender people in this book (See, for instance, Chapter 13 by de Vries & van der Miesen).

DEVELOPMENT OF CHILDREN WITH GENDER DYSPHORIA OR GENDER INCONGRUENCE

One of the main questions when working with children with GD or gender incongruence and their families relates to the future gender identity of the child, as an adult. What will the psychosexual outcome of the child be in the future? Will the child grow up and identify as a gay man or a lesbian woman without experiencing feelings of gender incongruence in the future? Will the gender dysphoric feelings persist? Will they intensify, and will the child need medical treatment in the future?

Some answers to these questions can be derived from the findings of follow-up studies investigating the psychosexual development of children with GD into adolescence and early adulthood. The conclusion from these studies is that GD in childhood is strongly associated with a later lesbian, gay or bisexual sexual orientation, and that, in the majority of children (85.2%), the gender dysphoric feeling remits around or after puberty (e.g., Ristori & Steensma, 2016). However, the percentage of persistence of GD may actually be higher, since the reported persistence among the studies is variable (ranging from 2% to 39%). In addition, more recent studies (post- 2000) report higher persistence rates than older studies.

It seems that the explanation for this is threefold: Firstly, the intensity or severity of GD. As no formal diagnosis of GD for children was available before 1980, older studies may have included children with less intense GD (Drescher, 2014). In addition, as some early studies recruited children through advertisement, without a formal assessment and diagnosis, they

may not have fulfilled the current diagnostic criteria for GD in childhood. Secondly, cultural difference in the tolerance of gender non-conforming behaviours. As previously described, it seems that there are geographical differences in societal acceptance of childhood gender nonconformity which bias the interpretation between studies describing clinically referred children with GD from different countries or continents. For example, although the sex ratio in child referrals always favoured the referrals of assigned boys, compared to assigned girls, the difference in ratio has always been higher in North-America than in Europe (Cohen-Kettenis et al., 2003; Steensma, 2013; Wood et al., 2013). This may indicate that femininity in boys is experienced as more problematic in Canada, resulting in more referrals of assigned boys with less severe GD than in the Netherlands. As a result, the persistence rates reported in Dutch studies are higher in the Netherlands compared to Canada, which may be a representation of the higher severity of the GD among the referred Dutch children. Thirdly, length of follow-up. Studies vary regarding the length of time children with GD are followed up for assessment. It may be the case that, the later adolescents or young adults were assessed, the higher the persistence rates would be. To test this hypothesis, Steensma & Cohen-Kettenis (2015) recently published a report on 150 children with GD from the Netherlands. At the time of the first assessment, the children involved in this study were aged between 5 and 12 years old and, at follow up, between 19 and 38 years of age. Out of the 150 children with GD that they followed up, 40 of them (26.7%) were found to have a persistent GD at adolescence (12-18 years of age). Furthermore, 5 individuals applied for treatment after the age of 18, raising the persistence rate to 30% and showing the importance of long-term follow up. Although persistence rates of childhood GD may be higher than previously described, desistence of GD still seems to describe the majority of children with GD attending transgender health services. This raises the following question:

Is It Possible to Predict the Persistence or Desistence of Childhood GD and What May Be the Factors and Processes Involved?

To date, there is little knowledge of the factors associated with the persistence or desistence of childhood GD. First of all, it seems that children that show more intense and severe gender dysphoric feeling and behaviours, are more likely to have their GD persisting into adolescence and adulthood (Drummond et al., 2008; Singh, 2012; Steensma et al., 2013; Wallien & Cohen-Kettenis, 2008). Furthermore, the persistence rate is generally higher in assigned girls than in assigned boys (Steensma et al., 2013; Wallien & Cohen-Kettenis, 2008). In addition, studies have found that children whose GD persisted into adolescence and adulthood were assessed later in childhood (Steensma et al., 2013; Singh, 2012) and, more often, came from a lower social background (Singh, 2012). Furthermore, assigned boys with GD, who had an early social transition in childhood and lived in a female gender role, more often persisted, compared to assigned boys who did not transition in childhood (Steensma et al., 2013). Also the persisters, when interviewed, explicitly indicated that they felt they *were* the “other” sex, in childhood, and the desisters indicated that they *wished* they were the “other” sex, in retrospect (Steensma, Biemond, de Boer & Cohen-Kettenis, 2011).

Steensma et al. (2011) conducted a study to better understand the processes that contribute to the persistence and desistence of childhood GD and interviewed 25 adolescents who had a childhood GD diagnosis. Of these, 14 adolescents were persisters and 11 desisters.

From this study, it became clear that the period between the ages of 10 and 13 was considered crucial. In fact, both persisters and desisters recognized some common experiences during this period of time that increased or decreased their gender related interests, behaviours, and feelings of gender discomfort. In particular, the changes in their social environment, the pubertal changes of their bodies, and the first experiences of falling in love and sexual attraction were reported as factors that clarified their gender identification.

CLINICAL MANAGEMENT OF CHILDREN WITH GENDER DYSPHORIA AND GENDER INCONGRUENCE

Over the last decade, the care for prepubescent children with GD and GI has come more and more to the attention of professionals, and a growing number of specialized transgender health clinics for youth have been opened worldwide (Hsieh & Leininger, 2014; Khatchadourian, Amed, & Metzger, 2014; Riittakerttu, Sumia, Työläjärvi, & Lindberg, 2015). However, there is still no complete consensus as to what is the best clinical practice for these children. In fact, issues on whether one should diagnose a child, and on how to counsel a child with GD or GI, are controversial and raise continual debates among dedicated professionals, parents, families, professional associations and transgender organizations. In most practices, the clinical management of children with GD and GI starts with a diagnostic period, consisting of several sessions with the child, the parents and/or both. The child and the parents are interviewed, the child is observed, and a diagnosis is reached. The primary aim of the diagnostic procedure is to determine the intensity of the gender dysphoria. In addition to this, information on emotional and cognitive, as well as social, school and family functioning, are assessed in order to establish a potential understanding of the gender dysphoria and seek targets for intervention (de Vries and Cohen-Kettenis, 2012). There is general agreement that the main aims of the counselling of children with GD and GI should be reducing the child's distress, helping with other psychological difficulties (if present) and optimizing psychological adjustment and well-being (e.g., Byne et al., 2012; Coleman et al., 2011). Professionals also agree that no medical intervention should be provided in childhood (before puberty).

With regard to the counselling of the child's GD or GI feelings, there are different views in the field. Currently, three treatment models for the care of gender incongruent children are described in the professional literature (Byne et al., 2012; Drescher, 2013). The first approach, also known as "*watchful waiting*" (Drescher, 2013), is mainly aimed at allowing the child's gender identity development to unfold naturally. In particular, the child and the parents are helped to create a *space* where gender dysphoric feelings can be openly explored, while at the same time protecting the child against negative reactions from the environment and remaining realistic about the chance that GD or GI feelings may desist in the future. All future outcomes must, in fact, always be considered and kept open (e.g., de Vries & Cohen-Kettenis, 2012; Di Ceglie, 1998; 2014). This also means that the child and the parents could need support to bear the uncertainty of the future psychosexual outcome. Within this model, parents are continuously involved in the counselling process by receiving psycho-education on GD and GI in childhood, and the children are helped in making balanced decisions about the best moment to share their feelings with peers, whether they should live in the preferred

gender role and socially transition, or questions regarding which toilet to choose at school. These are only some of the difficult questions that parents may be asked by others regarding their gender non-conforming child, and they may be difficult to answer. Furthermore, counselling based on this approach may include interventions that focus on the co-existing problems of the child and/or the family (if present) and deal with the potential social risks for the child (Byne et al., 2012).

The second approach, also known as *affirming model*, is mainly focused on supporting the child's (cross) gender identification, to let the child freely express and live according to the preferred gender, in order to build a positive self-identity and gender resilience (Drescher, 2013). Within this approach, social transitioning before puberty is, in fact, considered. This takes place only at a social level, without any medical intervention, and children can revert back to their originally assigned gender in case their GI desists (e.g., Byne et al., 2012; Drescher, 2013; Hill, Menvielle, Sica, & Johnson, 2010). However, critics of this approach question the effect that an early social gender role transition may have on the child's future development. Questions arise as to whether an early social role transition increases the likelihood of GI persistence. For example, a child may find it difficult to express doubts about gender identification out of fear of having to go through the process of a social transition for a second time. In a qualitative study by Steensma et al. (2011), where children who socially transitioned were interviewed, a second social transition (de-transition) was a distressful and troublesome process. Finally, the third approach aims to lessen cross-gender behaviours and feelings by making the child feel comfortable in what is described as the "right gender," (the one assigned at birth) (Giordano, 2012). This approach aims to prevent GD from persisting into adolescence and avoid a later need for medical interventions in adulthood. This used to be the main approach for the care of gender non-conforming children in the past and has been largely applied with overall, unsatisfactory results (Byne et al., 2012; Möller, Schreier, Li, & Romer, 2009). The model is currently highly criticized and has been linked to "reparative therapy," a term that refers to psychological and medical interventions aimed at changing a person's sexual and gender identity from homosexual to heterosexual and/or from gender non-conforming to gender normative. At present, any intervention aimed to lessen GD is considered unethical. Many international professional organizations, such as the World Professional Association for Transgendered Health (WPATH: Coleman et al., 2011) and the American Academy of Child & Adolescent Psychiatry, have explicitly formulated their position against any psychological treatment aimed at changing gender non-conforming behaviours (Adelson, 2012).

In summary, to date, unfortunately it is still not possible to define what is the best way to counsel gender non-conforming children. The WPATH has taken a balanced position, formulated in their Standards of Care (Coleman et al., 2011), explaining that professionals working within the field of childhood transgender healthcare are encouraged to help families by providing information about what is known about the development of gender non-conforming children and to help them to make decisions where the potential benefits and challenges of particular choices are always carefully weighed.

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LEARNING POINTS

- Gender role (behaviours, attitudes and personality traits that are typically attributed to boys or girls) should not be confused with gender identity (the experience of being male, female or another gender).
- Children with GD show extreme and enduring forms of gender incongruence and, because of this, experience clinically significant distress.
- Children with GD are vulnerable to developing psychological problems, in particular of an internalizing nature, such as depression and/or anxiety.
- Psychological problems in children with GD are primarily caused by social intolerance and peer rejection.
- For the majority of children with GD, the gender dysphoric feelings will desist over time: Childhood GD is strongly associated with a later lesbian, gay or bisexual orientation.
- To date, there is still little knowledge about the factors associated with the persistence or desistence of childhood GD.
- To date, there still not complete consensus on what is the best clinical practice for gender non-conforming children.
- There is general agreement that the main aims of the counselling of gender non-conforming children should be; reducing the child's distress, helping with other psychological difficulties (if present) and optimizing psychological adjustment and wellbeing.
- Professionals agree that no medical intervention should be provided in childhood (before puberty).
- There are three different views regarding the counselling of gender non-conforming children: the “*watchful waiting*,” aimed at allowing the child's gender identity development to unfold naturally; the *affirming model*, focused on supporting the child's (cross) gender identification and letting the child freely express and live according to the preferred gender, in order to build a positive self-identity and gender resilience, and a third approach that aims to prevent GD from persisting in adolescence and avoid a later need for medical interventions in adulthood. This last model is considered unethical.

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Chapter 6

TRANSGENDER YOUTH

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OVERVIEW

Transgender youth are presenting at younger ages with increasing numbers being referred to transgender healthcare services. The introduction and more widespread use of puberty suppression, to suspend physical development, gives younger people an opportunity to receive medical gender affirmative treatment care without having to wait until adulthood. Young transgender individuals may have a diverse range of gender identities and/or expressions that differ from societal expectations based on the gender that they were assigned at birth. While some present with longstanding other-gender behaviour from childhood, others have transgender identity feelings that emerge during or after the onset of the physical changes brought on by puberty. For clinicians and other health professionals, helping all of the youth and their families may sometimes be a challenging task. For certain youth, the need for gender affirmative treatment is crystal clear, whereas for others there may be a need for further exploration of what their feelings mean. Other psychological and social challenges may add complexity when making decisions about social gender transition and the irreversible medical interventions that have far reaching consequences later on in life.

INTRODUCTION

While transgender individuals in general have received a remarkable increase in visibility in the media and society during the last few years, it is specifically the young people among them that have become a significant focus of attention. Youth are presenting at younger ages, and more care providers are obtaining referrals to assist these youth with gender-related concerns. In this chapter, the use of the term “young people” refers to adolescents and young adults, which we roughly define as the years between entering puberty and establishing

independence from one's carers. During the last decade, the introduction and widespread use of reversible puberty suppression to suspend the irreversible physical development of strongly undesired sex characteristics, has given younger people an opportunity to receive care without having to wait until adulthood for medical gender affirmative treatment. The proud young transgender individuals and their parents who present themselves on TV shows and in magazines illustrate a positive side to coming out at a young age and the relief that they often experience as a result of being accepted earlier and/or receiving timely physical interventions. These youth are part of a broader group of gender diverse adolescents who present with gender identities and/or expressions that differ from societal expectations based on the gender that they were assigned at birth. While some present with longstanding other-gender behaviour from childhood, others may present with transgender identity feelings that emerge during or after the onset of the physical changes brought on by puberty. For clinicians and other health professionals, helping all of the youth and families may sometimes be a challenging task. For certain youth, the need for gender affirmative treatment is crystal clear, whereas for others there may be a need for further exploration of what their feelings mean. Other psychological and social challenges may add complexity when making decisions about social gender transition and the irreversible medical interventions that have far reaching consequences later on in life.

There are several ethical and moral dilemmas to consider when thinking about transgender youth: when does gender identity become 'fixed,' if at all, and what is the risk of young people regretting their decisions regarding the development of irreversible physical effects? What are the medical effects of early treatment later in life? And importantly, with regard to infertility, which might not seem an important subject during adolescence, how will these individuals fare later on (in their thirties or forties) should they potentially want to start a family? With pubertal suppression being a relatively new treatment intervention in the last decade, long-term research studies that follow up the youth into later adulthood do not yet exist. Therefore, transgender youth, their families, and clinicians involved in transgender care are confronted with many uncertainties. This has led to various debates in a field that is fast evolving. The present chapter will give an overview of the current state of knowledge on transgender youth, but will also point to what is not yet known. We hope that this chapter will help transgender youth, their families, educators, primary care physicians, and general paediatricians to understand gender diverse feelings in young people.

CLINICAL PRESENTATIONS

Transgender adolescents present to clinicians and health care providers in many different ways. Whereas some have gender non-conforming or gender variant behaviour as soon as they can talk and express their toy and clothing preferences, others come out as transgender only after puberty starts and physical discomfort develops. Some are extrovert and open, while others are shy and anxious and keep silent for a long time. Some grow up in families and environments that give full support, still others meet misunderstanding and resistance from their parents and schools. What they all share is a deep discomfort or confusion stemming from the incongruence between their experienced gender and their birth assigned gender which causes them, their parents or their teachers to take the step of seeking

professional help. Many transgender people experience obstacles in finding access to transgender care. Out of fear of stigmatization and shame, many have waited long before coming forward. A respectful and non-judgemental approach works best to create the working relationship that is needed to make shared decisions regarding a possible medical, gender affirmative treatment. Throughout this chapter, we describe some clinical cases that illustrate the diverse presentations of young transgender people.

VIGNETTE - MAX/MAXINE

Maxine is 12 years old when she returns to the gender identity clinic. She has been there before. At around the age of 8, Max's parents sought advice. Assigned male at birth, Max seemed to be in tears sometimes because not everyone understood his feminine identifications and expression of behaviour. *[Note: when referring to Max in younger years, male pronouns will be used, as this was how Max's parents referred to him at the time]*. From a very young age, he had no desire to partake in stereotypically male-associated activities for his age group, such as cars, football and rough-and-tumble play. Instead, he liked to dress up in female clothing, preferred dolls and pets, and could endlessly draw pictures in bright colours, his favourite being pink. His parents were supportive and would let him express his interests as he wanted. Some decisions had been difficult for them. For example, Max wanted to let his hair grow long and wanted clothes from the girls' department. His parents initially tried to find a middle ground by allowing him to wear gender-neutral clothing and "half-long" hair. However, they gradually allowed him to transition to living socially as a girl by wearing more female clothing and adopting a stereotypically feminine hairstyle. When the family came to the gender identity clinic initially, they reported that some of the girls in the classroom no longer wanted to play with Max because 'he was a boy,' which made him sad. He clearly expressed that he desired to be one of the girls and did not feel connected with the boys, thus he was classified as having a diagnosis of gender dysphoria of childhood. That gave him and his family some recognition, and, with the help of the teacher, it was explained in class that Max was a gender diverse child, meaning that he felt and behaved like a girl at present, but that any identity would be acceptable in the future. His classmates then understood much better why Max behaved as he did and Max was accepted by the girls again.

By the age of 10, most people around him had gradually started to use female pronouns. Max also started to express an explicit wish to have a female name, and, together with his parents, he chose one. When re-entering the gender identity clinic at age 12, Maxine, as she was called now, *[Note: we will now switch to using female pronouns when referring to Maxine]*, was a bright and well-functioning young adolescent. Puberty was about to begin, as was determined by the paediatrician. She had thought thoroughly about medical interventions and was prepared to take puberty suppression because she anticipated with fear the development of physical male characteristics like facial hair, a low voice and a muscular body. She estimated the chances of a change of her female gender identity as almost zero. It was hard for her to think about the future consequences related to fertility (or lack thereof), but imagined she would adopt children in the future, should she want them.

GENDER IDENTITY DEVELOPMENT AND RELEVANCE OF SEXUAL ORIENTATION IN ADOLESCENTS

Adolescence is considered a crucial period of gender identity development for the broad group of youth presenting with gender issues (Steensma, Kreukels, de Vries, & Cohen-Kettenis, 2013). While many, if not a majority of, gender diverse younger pre-pubertal children (according to the current science that exists, numbers vary in different studies from 64%-98%), no longer experience distress with the anatomical features of their bodies (e.g., Steensma, McGuire, Kreukels et al., 2013), in others the distress from their changing bodies increases and their cross-gender identification intensifies. A puzzling question for transgender care providers and parents alike is often, "How do we know for certain that these feelings will remain for the duration of the young adolescent's life and into adulthood?" At present, there is some scientific knowledge that shows that ages 10 -13 years old are crucial when it comes to determining whether gender dysphoria remains and intensifies, or diminishes and extinguishes over time. During that period of life, social interactions with peers are changing, with boys and girls typically interacting mostly with same-sex peers. Also, this is the time when the first physical characteristics of puberty emerge. Finally, the first experiences with romantic relationships and sexual arousal in response to others occur during these times (Steensma, Biemond, Boer, & Cohen-Kettenis, 2011). Apart from the youth that showed gender variance from childhood, there are also adolescents presenting with a gender identity that differs from the gender assigned at birth, who did not demonstrate such behaviours when they were children. There are a variety of reasons why this might be the case. Some youth who do not present gender non-congruent behaviour and identity in childhood may have been silent, were not aware, or did not have the words to express what they were experiencing internally. Some may not have experienced such feelings until puberty started. Transgender youth, similarly to cisgender youth, have different developmental pathways when it comes to how they express themselves, how they identify, and how they experience themselves as a certain gender in a romantic or sexual relationship with another individual.

There is professional agreement that someone with a transgender identity that intensifies or emerges after puberty begins, is most likely to continue to experience this into adulthood. This should be distinguished from gender dysphoria in young childhood that, as mentioned before, the majority will no longer experience by the time puberty starts. This is confirmed by data from three Dutch clinical follow-up studies of adolescents who received puberty suppression and/or cross-sex hormones. These studies showed that none of these adolescents refrained from gender affirming surgery after they had started pubertal suppression (GnRH agonists) or cross-sex hormones (Cohen-Kettenis & van Goozen, 1997; de Vries et al., 2014; Smith, Van Goozen, Kuiper, & Cohen-Kettenis, 2005a). It is important to note that these studies concern a selected sample of comprehensively psychologically assessed, well-functioning and socially supported youth. Regrets concerning these gender affirmative treatments have not been reported as of yet. Although gender identity and sexual orientation are two distinct concepts, sexual orientation is of relevance in youth presenting with gender dysphoria and seeking physical treatments. Some transgender youth may have experimented with same-sex relationships and identified as gay, prior to living life as another gender. For others, it has always been clear that they feel 'heterosexual', as they were able to define their attractions to others in reference to the gender identity they were experiencing (as opposed to

the gender that they were assigned at birth). Other adolescents, who may be growing up in societies where gay and lesbian individuals are persecuted, may not feel as though same-sex attractions and sexual behaviours are permitted for themselves or their families. Therefore, clinicians should ensure that adolescents seeking physical treatments are able to understand the difference between these two distinct concepts and are not merely seeking to transition genders as a way of avoiding unwanted sexual desires, as might be the case for certain individuals in certain societies.

VIGNETTE – LISA

Lisa is 15 years old when she comes to the gender identity clinic with her parents. She describes having had “difficult years,” but is now almost sure that this was because she had concealed her male gender identity for too long. In primary school, during pre-pubescent years, she never was a typical “girly girl,” although she was not extremely boyish either. She would like to play with peers of both genders, depending on what their interests were. Lisa liked to read, would make up stories, play with Lego and would use toys to engage in all types of vivid fantasy play. Outside, she liked fishing and building huts, and excelled in different sports. She was quite young when she did not want to wear dresses any longer, but kept her hair long. By the end of primary school, she sometimes felt different or not belonging to her group, especially as the other girls became busier with fashion interests and romantic relationships, which were of no interest to Lisa at all. In high school, Lisa had hoped to find new friends. However, she had a hard time connecting with others and increasingly became lonelier. She was often in her room and felt insecure and unhappy, without really understanding why. When she experienced a crush on a girl in a different class, she considered herself to be a lesbian. At the same time, that felt really strange to her and she started to search the Internet. There, she read stories about transgender boys and asked herself whether she could be experiencing the same thing as them. Since the beginning of puberty she had disliked her breasts, and the concept of having a male body was attractive to her. She cut her hair shorter and started to wear boys’ clothing. This led her to feel almost convinced that she was now transgender, but she dared to say this to nobody. It was, in the end, her mother, who asked her during a car ride what was going on, and whether she was a lesbian? When Lisa denied that, her mother continued asking questions to determine if Lisa had thought of herself as transgender? The relief of having told her mother was enormous. Slowly, she started to tell other people how she felt, receiving positive and supportive responses. Upon coming to the gender identity clinic, she sought confirmation of her feelings from the gender specialists before making any decision about medical interventions, but could hardly wait to start them, and voiced wanting to change her name to a preferred male one, and start fully living as male.

CAUSAL PATHWAYS OF GENDER DYSPHORIA IN YOUNG PEOPLE

Many transgender youth feel that the fact that their bodies do not align with their experienced gender is something they are born with, as if it is a mismatch between their

brains and their bodies. There is research among transgender adults that shows that certain parts of the brain play a role in developing gender dysphoria (Kreukels & Guillamon, 2016). Whether or not this is something that transgender people are indeed born with, is the result of something that occurs later in development, or both, has yet to be established.

Adolescents have only recently become the subject of studies that focus on the cause of gender dysphoria. It is most likely that the same factors that are considered to be involved in gender dysphoria of childhood and adulthood play a role in adolescence. Currently, it is thought that psychological, social, and biological factors are all involved, however, it is unknown whether these factors occur in different proportions for different people. At present, the research on transgender adolescent brains has only begun to take place and the findings are mixed, however, further research may help to clarify some of these questions (Burke, Cohen-Kettenis, Veltman, Klink, & Bakker, 2014; Hoekzema et al., 2015; Soleman et al., 2013). Several challenges exist when studying the brain of transgender individuals. For example, it is important to perform the research *before* they receive any form of puberty suppression or cross-sex hormone intervention, in order to make sure that the results are not affected by the treatment itself. One must also consider the significant cost of brain imaging procedures in the individual, which brings a different ethical dilemma. In addition, during adolescence, sex hormones, among other influences, are factors that influence the developing brain. The brains of young people are rapidly changing as a result of adolescence itself, and so it can be difficult to distinguish changes that would naturally occur over time, versus changes that exist over time due to the presence of gender dysphoria.

CO-OCCURRING PSYCHOLOGICAL CHALLENGES AND MENTAL HEALTH CONDITIONS

When determining helpful treatment pathways for young people who present with gender related concerns, it is important to assess all aspects of an adolescent's psychological functioning and identity. Such assessments are recommended by professional organizations who have standards of transgender care and treatment guidelines, including the World Professional Association of Transgender Health (SOC 7, Coleman et al., 2012), the American Academy of Child and Adolescent Psychiatry (Adelson et al., 2012) and the American Psychological Association (APA, 2015). The main reasons why these guidelines encourage a mental health assessment are to determine: (1) if there are any psychological challenges or diagnoses that exist in addition to the individual's concern about gender identity; (2) whether these psychological challenges, over a period of time, impact on the ability of the care provider, family members, and youth alike, to understand the authenticity of an individual's experience before moving forward with anything irreversible; and (3) whether any psychological challenges would negatively impact on the course of a transgender youth's transition from one gender to another. Such assessments are important because studies indicate that transgender youth are a vulnerable population and are more likely to present with a psychological challenge or mental health disorder than their cisgender counterparts (Hewitt et al., 2012; Holt et al., 2014; Khatchadourian et al., 2014; Spack et al., 2012). These increased rates of depression and/or anxiety are related to the discrimination and victimization that these adolescents often experience in society, due to a lack of acceptance by others (e.g.,

de Vries et al., 2016, Mustanski & Liu, 2013). Research has also indicated a higher occurrence of individuals who meet the clinical criteria for a diagnosis of an autism spectrum disorder within the transgender population, versus the cisgender population (de Vries et al., 2010). Youth presenting with both of these concerns (gender and autism spectrum), often introduce an added layer of complexity for parents and care providers alike.

Another reason why a mental health assessment might be important is listed above as determining whether or not the mental health challenges interfere with the clarity related to the assertion of the young person. For example, youth with autism spectrum disorders may view the world extremely literally (inherent in that diagnosis) and, therefore, it is important to determine whether or not that concrete aspect of thinking is behind their dissatisfaction with their gender. For depressed or anxious youth, families may question whether or not “it is the depression speaking,” in which case the provider can help clarify whether or not the depression is a consequence of not living authentically.

The third reason helps the gender specialist, family, and adolescent engage in shared decision making about the timing of transition. For adolescents with gender dysphoria who present without any mental health challenges, have good support, and demonstrate healthy psychological adaptive skills, an approach that affirms their experienced gender and includes puberty suppression, followed by medical treatments that will further make their bodies change, is helpful. It enables these transgender youth to live more authentic and productive lives. For adolescents who have poor adaptive coping skills, significant mental health issues, and/or lack strong support, extra time beforehand may be necessary to help families and youth think through how to manage the reality of the challenges that are associated with transitioning genders, so that they are psychologically prepared to go through the process.

VIGNETTE – TOM

Tom is 16 years old when he is referred to the gender identity clinic. His parents are divorced and he grew up mainly with his mother from the age of 6 years old. His mother had a difficult time taking care of him by herself. His father has been around infrequently, sometimes out of his life for years. Tom has a history of various mental health evaluations during his childhood and had been diagnosed with ADHD and mild autism spectrum disorder. He had been on and off medication. In childhood, there was no indication that he was struggling with his gender identity, as there were no behavioural expressions of anything stereotypically female. Moreover, Tom often played alone because he got into trouble with other children easily. He liked to collect cards and read cartoons. He also did a lot of gaming on his computer. During high school years, Tom started to miss a significant amount of school. He often stayed at home and complained about stomach pain, for which medical doctors could never find a direct cause. At home, he was mostly in his room, reading, watching and drawing Japanese anime cartoons. After he failed a class and had to repeat his junior year, he stopped going to school altogether. His mother tried to encourage his attendance, but could not get him to school either. After talking to him endlessly, he explained to her that he had been thinking that he was transgender for almost two years. He noted that it started with his taking clothing and underwear from his mother’s room into his own. Once his mother heard about this, she realized that she had several pieces of her

wardrobe missing. Tom had only talked about his transgender feelings online and none of the few, in-person friends he had, knew yet. Online he had adopted a female name. It was his hope and expectation that, when he could socially transition to the female gender role, he would be able to go to school again and make friends with the other girls. His growing hair on his arms and legs and his large feet disgusted him, and he was hoping to get puberty blockers as soon as possible, so that further male maturation would stop.

CARE FOR TRANSGENDER YOUTH

Primary Care Setting

Before any referral to a specialized multidisciplinary transgender healthcare team takes place, most gender diverse youth will first see a school nurse, family practitioner, child and adolescent mental health professional or a paediatrician. These professionals may play an important role in overcoming the barriers that are experienced by many transgender youth in finding access to transgender healthcare (Gridley et al., 2016). One such obstacle is that many gender diverse youth feel that they meet clinicians or other healthcare staff who are not trained and experienced in the transgender field. A welcoming environment that respects gender diversity and acknowledges the importance of using the preferred name and pronoun is helpful. When interacting with transgender youth, it is generally wise to ask what terms youth prefer to use and to ask for clarification as to what they specifically mean when they use a certain term. Other important barriers include long waiting lists, long distances to specialized teams, and difficulties with insurance reimbursement in some countries. Primary care providers can help coordinate this type of care and support the youth until proper care is in place. They can determine what type of care is needed; in some cases it might be more helpful to first refer the young person to a mental health provider who can support the exploration of the adolescent's identity in a non-presumptuous way. In other cases it might be helpful to consider mental health involvement *in conjunction with a team who provide specialized medical transgender care*. In all cases, withholding necessary, specialized transgender care should be prevented.

Specialized Transgender Care

As previously noted, care for trans youth may require interventions that span different domains. Physical and, in some cases, mental health, interventions can be used in conjunction with each other, and the timeframe for when such interventions might be recommended is highly individual and depends upon several factors. In general, physical interventions pertaining to gender transition are best organized according to the degree of reversibility that they have on an individual's body. Therefore, professional guidelines prescribe that significant exploration of the risks and benefits of such interventions should be prioritized in order to obtain informed consent, particularly for those treatments that have more irreversible effects.

Mental Health Interventions

An exploration of aspects of the young person's gender identity and gender transition may be helpful. Given the higher rates of mental health challenges that often present in transgender youth, prioritizing treatment of those conditions is often indicated. Supportive therapy can serve to help build resilience (positive coping strategies) and serve as a function to help youth explore the complexity of gender and sexuality for transgender adolescents, including those who declare non-binary gender identities.

Additionally, mental health support can be important for adolescents during the periods of physical change that take place with hormonal and/or surgical intervention. Helping a young person adjust to a changing body can potentially mitigate the negative effects that false expectations of anticipated changes may incur (Cohen-Kettenis & Pfäfflin, 2003; Cohen-Kettenis, Steensma, & de Vries, 2011).

REVERSIBLE PHYSICAL INTERVENTIONS

Pubertal suppression is carried out with gonadotropin releasing hormone agonists (GnRHa). This is a reversible hormonal treatment that prevents the development of unwanted secondary sexual characteristics of an adolescent's sex at birth (Delemarre-van de Waal & Cohen-Kettenis, 2006).

Suppressing pubertal development gives the young person time to live as the gender that one experiences without maturing physically. The adolescent's psychological maturity can proceed, which gives them the ability to understand the future consequences of potential hormone and surgical treatments that have irreversible effects. Ultimately, a young person who receives puberty suppression and then receives the sex hormone of their experienced/preferred gender (e.g., testosterone for trans men or oestrogen for transgender women), would have a lesser need for invasive procedures later on. For example, if a transgender man never grows breasts to begin with, then there would not be a need for chest surgery. Or, similarly, if a transgender female does not develop facial hair, then there would not be a need for future electrolysis. Blending into society as the gender one most closely identifies with, has been associated with better psychological adjustment and outcomes in adulthood (Lawrence, 2003). There are some limitations in scientific knowledge regarding the long-term use of pubertal suppression that care providers should discuss with parents and youth, before moving forward with the intervention. However, initial results of the research, although mainly from one Dutch clinic, have indicated that these youth fare better than previous research indicated with transgender adults who never received puberty suppression (de Vries et al., 2014; de Vries et al., 2011).

There are other reversible physical interventions that can be used for young people to help minimize the distress they are experiencing. For example, blocking a transgender male's menstrual cycle with certain oral contraceptive medicine may be one helpful way to buy time, without the distress of the monthly reminder of their body that contains a vagina and uterus.

Table 1. Pubertal Suppression- an overview

Pubertal Suppression in Youth with Gender Dysphoria	
<p>What is Known</p> <ul style="list-style-type: none"> • Research that follows youth from young adolescence into young adulthood indicates that it is a successful medical intervention when provided at ages typically above 12 years old (deVries et al., 2014) • Initial research on bone development that follows youth over time indicates some potential reduction in the strength of bones (Klink et al., 2015) • Pubertal suppression, when later followed by cross-gender hormone administration, promotes the development of an appearance more consistent with the another gender (Coleman et al., 2012, Hembree et al., 2009) • Research in the past has demonstrated that young transgender adults who physically appear as their preferred gender are more likely to have healthier psychological outcomes than those who do not (Lawrence, 2003) • Sex hormones are thought to exert an effect on brain development in areas that affect cognitive growth and affect regulation, however their precise effect in relation to other factors is not quite known, so therefore the risk of pubertal suppression on brain development is still hypothetical at this point in time. (Berenbaum, Beltz, & Corley, 2015) • Preliminary brain imaging research on the effects of pubertal suppression on brain development in gender dysphoric adolescents (when started at around age 12), indicates no detrimental effects on more complex brain functions, such as planning or resisting impulsive urges. This research is only relevant for youth who had no pre-existing brain related disorders such as attention deficit hyperactivity disorder or Autism Spectrum Disorder. (Staphorsius et al., 2015) • Waiting for Tanner 2 pubertal stage (puberty to have emerged) before starting pubertal suppression is important in understanding an adolescent's response to their changing body (Hembree et al., 2009) • WPATH SOC 7 specifies criteria for using pubertal suppression (Coleman et al., 2012) 	<p>What Is Not Known</p> <ul style="list-style-type: none"> • Unclear long-term effects on brain development in this population • There is lack of consensus among gender specialists in the field regarding the ideal time to start pubertal suppression (whether to use age, degree of pubertal advancement, or both) • The effect of pubertal suppression on brain development in young adolescents with co-occurring brain-related neurodevelopmental disorders, such as ADHD, Tourettes Disorder, or Autism Spectrum Disorder for example, has not been studied. It is important to provide context that there is a lack of understanding of sex hormone precise influences on brain development and behaviour in general • The field lacks data suggesting the benefits of using pubertal suppression for older transgender youth (later stages of puberty) when used in conjunction with cross-gender hormone therapy. Anecdotally it is being used in this way to lower the necessary dose of cross-gender hormones in order to achieve a feminizing or masculinizing effect • The relevance on the impact on the lower strength of bones to the risk of actually developing a fracture has not been studied
<p>Potential Benefits</p> <ul style="list-style-type: none"> • May alleviate immediate psychological distress of the young person with emerging secondary sexual characteristics (effects of puberty on the body) • Minimizes the need for costly surgical interventions later in life, when applicable • Helps an individual have the long-term physical appearance of their affirmed gender identity, which often impacts the way society views them 	<p>Potential Limitations</p> <ul style="list-style-type: none"> • Starting puberty suppression may lead individuals to automatically assume that the younger youth will automatically identify as transgender later on in life which may prevent exploration of other possibilities • There is an unclear effect on brain development and processes that affect cognitive development and mood, especially in youth with co-occurring neurodevelopmental disorders, such as ADHD, Tourettes Disorder, and Autism Spectrum Disorder. • By promoting the concept that individuals must appear a certain way, widespread use of puberty suppression may reinforce on a societal level, the notion that one must physically appear as the gender they feel they are when that deviates from their natal sex

Partially Reversible Interventions

In older transgender youth (historically around the age of 16 years), cross-sex hormone therapy (oestrogen for youth assigned male at birth and testosterone for youth assigned female at birth) is used to promote the development of physical characteristics of the sex most compatible with the individual's declared gender identity. These interventions also suppress the effects of an individual's natal sex hormones. The WPATH SOC7 has described four general criteria that should be present before an adolescent starts treatment with these hormones (Coleman et al., 2012). They include the following: (1) persistent, well-documented gender dysphoria; (2) capacity to make a fully informed decision and consent to treatment; (3) legal age of majority in a given country; and (4) reasonably well-controlled significant medical or mental health concerns, if present.

The effects of oestrogen and testosterone are partially irreversible and, therefore, the widespread consensus is that the potential effects that these treatments may have on the reproductive system (among other body systems) should be explored within therapy, prior to starting them. Recently, an earlier age than 16 for the initiation of oestrogen or testosterone has been suggested for individual, psychologically mature, adolescents who have received pubertal suppression beforehand (de Vries et al., 2014). The age of 16 years used to be recommended because previous research on starting cross-gender hormones at this age revealed positive effects (Cohen-Kettenis & van Goozen, 1997; Smith, van Goozen, & Cohen-Kettenis, 2001). Also, it is the age of legal majority for making medical decisions in various countries. When initiating treatment at a younger age, parental consent is required, unless the youth is an emancipated minor in certain countries where this applies.

As was described above, challenging psychological issues should be "stable," such that they present no significant barriers in the assessment and treatment process, when the young person gives consent for the treatment (Coleman et al., 2012). The presence of a significant psychological concern or major mental health illnesses not, in itself, a reason to not initiate cross-sex hormones. However, as mentioned, when these psychological challenges complicate the team's (including the parents' and adolescent's) ability to understand what is clearly going on, experts largely agree that conservative management and prioritizing the treatment of the other psychological concerns is the best course of action at that time, and minimizes doing any irreparable harm to the youth. By addressing these concerns, it should be possible to help further clarify the adolescent's feelings and understanding of gender transition over time.

Irreversible Surgical Interventions

Various irreversible surgical interventions are being recommended as appropriate treatments in appropriately screened individuals with gender dysphoria, when they are at the age of majority in a given country (SOC 7, WPATH). The most common surgical procedure for the transgender youth age group is chest surgery (removal of breasts) for individuals assigned female, but identified as men. When working with young people, it is recommended that one year of testosterone therapy is provided prior to undergoing chest surgery, to allow

the young person time to adjust to the masculine changes experienced with hormonal intervention, although this is not an absolute requirement (Coleman et al., 2012). Surgeries are typically performed on individuals over the age of majority, although some young people ask for surgical intervention at younger ages (mid-to-late teenage years). Although there is no long-term research on how young people fare psychologically after going through surgery during their teenage years, some clinics, mostly in the United States, do provide referrals for surgical care. Other clinics believe that irreversible treatments should be delayed until the young person is older. In the former situations, the requirements are usually that the situation is very clear, the challenges with gender dysphoria have been present for a long time, that not proceeding with the treatments would likely cause unnecessary harm to the adolescent, and there are strong support systems involved to assist the youth in the post-surgery recovery period.

CONCLUSION

Treating young people presenting with gender related issues is a rapidly evolving field. With growing visibility in the media and Internet, transgender adolescents, their parents, their teachers, their friends and their health care providers do have the chance to become better informed and acquainted with gender diversity. Still, many of them might feel unaware and confused when it comes to finding the right information and access to specialized transgender healthcare services. While the research is growing in the area of transgender youth, helping families and youth often requires detailed and nuanced understanding of both the scientific evidence, and the deficits in scientific knowledge, when framing the pros and cons of various interventions, some of which are irreversible. Understanding these issues, not only in specialized multidisciplinary transgender health clinics that are being newly formed across the world, but also among transgender youth, their families, their schools and their primary health care providers, will help bridge the gaps in treatment that have historically been faced by this underserved population.

LEARNING POINTS

- Care providers should use the preferred terminology and the correct pronouns and determine what a youth means when they use a term that is unknown to the care professional.
- Developmentally, it is less likely that gender identity will change after puberty has started (unlike with those children who are younger and have not entered puberty yet)
- A supportive gender-affirmative approach that includes early medical intervention, seems most helpful for transgender youth, when a team of providers can appropriately assess the youth to ensure that families proceed with optimal support.
- Although research shows promising results with regard to the effectiveness of this approach, it is still experimental treatment.
- Many transgender youth are well functioning young people.

- Others have challenges with regard to the family support they receive, the associated emotional and behavioural difficulties, or the existence of psychiatric conditions like autism spectrum disorder, and appropriate management of those conditions should be taken into account.

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Chapter 7

TRANSGENDER FAMILIES

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OVERVIEW

This chapter focuses on a specific type of transgender family, where one of the parents has come out as being transgender. It discusses the characteristics of these families, as well as some of the difficulties transgender families encounter following the coming out and social gender role transition of a partner and/or parent. The importance of involving partners, family members and the wider community in securing social support while transitioning is emphasized, as well as the value of peer support in various forms (individual and group, as well as face-to-face and online). It also highlights the lack of family support within transgender healthcare services and the need for professionals, coming into contact with members of transgender families, to be educated in this area.

INTRODUCTION

The field of transgender health has ignored the importance of family in the lives of transgender people (Dierckx, Motmans, Mortelmans, & T'Sjoen, 2015; Lev, 2004) for a long time. The most recent version of the Standards of Care, version 7 of the World Professional Association of Transgender Health (WPATH) highlights the importance of considering the family environment and social support in the psychological and medical treatment provided to transgender people (Coleman et al., 2012). The topic of transgender families has been gaining increased interest and consideration in both clinical practice and research in recent years. Whereas a focus on the family environment is prevalent in research concerning transgender youth, this focus is often lacking in research on transgender adults. The focus of many clinicians in transgender healthcare is on helping the transgender client (who is often the first family member referred to a clinical setting), while involving the family (of choice)

and the client's wider social network is often ignored. Research has shown that one of the most important factors contributing to the general well-being of transgender persons is the effect of having a supportive social network and stable relationships (Davey, Bouman, Arcelus, & Meyer, 2014). Also, the support offered to partners of transgender persons is of great importance for the mental health of these transgender partners.

Research has shown that affective ties and social reinforcement can contribute to a large extent to the experience of congruence between the physical body and the body image (gender integration) and thus help to ensure the consolidation of the gender identity. The attitude and understanding of others plays a crucial, if not determining, role in the integration of the gender identity in the personality of the person, and thus leads to better mental health (Ainsworth & Spiegel, 2010; Fraser, 2009). Furthermore, a lack of social support has been indicated as an important factor in worsening vulnerability (Fraser, 2009). The body of literature on the effects of medical interventions on the psycho-social well-being of transgender people shows that dissatisfaction after surgical interventions correlates, to a large extent, with a feeling of loneliness. Having a stable relationship is often mentioned as the most important factor in achieving post-operative well-being (Gijs & Brewaeys, 2007). Transgender people and their families are often challenged by heteronormative expectations in our Western societies (Israel, 2005). Families, who do not fit the heterosexual model, are confronted with social stigmatization (Carrera-Fernández, Lameiras-Fernández, & Rodríguez-Castro, 2013; Dierckx, Motmans, Meier, Dieleman, & Pezeril, 2014; Herek, 2007; Keuzenkamp & Kuypers, 2013; Kuypers, 2012; Walch, Ngamake, Francisco, Stitt, & Shingler, 2012). These heteronormative norms are also at play within trans families, especially when one of the parents/partners comes out within an existing relationship, with or without children. As a parent they challenge assumptions regarding biological parenthood and the associated gendered parental roles, whilst, from a spousal/partner point of view, their coming-out poses questions about sexual orientation. Parents of a transgender or gender variant child may feel responsible and worried about the expected (future) stigmatization of their child.

In this chapter we will focus on a specific type of transgender family, in which one of the parents has come out as being transgender. A 'family' is understood in the sociological sense of the word, and includes all different types of relationships between partners, with or without children, in which the number of parental figures is not limited to two, and non-monogamy relationships are also included. The situation of families in which the transgender status of one of the parents was existing/present before the relationship formation and/or before parental roles were established, falls outside the focus of this chapter.

TRANSGENDER FAMILIES

Research shows that a significant number of transgender people have children, and that the rates of parenthood currently tend to be higher among trans women than among trans men, mainly because the majority of trans women became parents before they embark on a social gender role transition (Fundamental Rights Agency, 2014; Motmans, Ponnet, & De Cuyper, 2015; Rosser, Oakes, Bockting, & Miner, 2007; Sales, 1995; Stotzer, Herman, & Hasenbush, 2014). This sex ratio in parenthood is likely to change in the future, as case reports and surveys are emerging of trans men who become pregnant after female-to-male

gender transition (Light, Obedin-Maliver, Sevelius, & Kerns, 2014), and technically assisted reproduction through fertility treatments.

It is also established that many transgender people are not living with their children under the same roof (Fundamental Rights Agency, 2014; Grant et al., 2011). From a clinical practice and research perspective, we know that, in many trans families, divorce is common when a married partner starts a social gender role transition (Motmans, Ponnet, & De Cuypere, 2015). Studies have shown that transgender people are often discriminated against, during legal custody processes, because of their transgender identities (Grant et al., 2011; Lynch & Murray, 2000; Pyne, Bauer, & Bradley, 2015; Stotzer et al., 2014).

Only recently, research has started to shed light on the experiences of children who have witnessed the social gender transition of one of their parents (Dierckx, Mortelmans, Motmans, & T'Sjoen, under review; Dierckx, Mortelmans, Motmans, & T'Sjoen, 2015; Dierckx, Motmans, Mortelmans, & T'Sjoen, under review). Concern that children of transgender parents may exhibit atypical gender behaviour, gender identity, and/or sexual orientation has not been clinically proven (Green, 1998).

Members of transgender families often criticize the narrow focus that health care professionals have when a parent's social gender transition takes place, and the fact that there is a lack of family support and long-term follow-up (Dierckx, Mortelmans, Motmans, & T'Sjoen, 2015). Many transgender people indicate they would like to see an increased level of support for those close to them (Davies et al., 2013). When children are present in trans families, the need for professional supportive services, including family therapy, is important, and the lack of family therapists with knowledge of issues related to social gender role transition and being transgender may be a major source of frustration and misunderstanding. Conflicting information regarding how and when to inform children, as well as negative attitudes of some health care professionals regarding the chance of relationship survival, are often mentioned in transgender families with children (Dierckx, Mortelmans, Motmans, & T'Sjoen, 2015).

Families of transgender people are often confronted with feelings such as loss, shame, grief, betrayal, guilt, fear and anger and, at the same time, can be confronted with rejection and social stigmatisation in their social surroundings (Church, O'Shea, & Lucey, 2014; Haines, Ajayi, & Boyd, 2014; Sales, 1995). Social isolation and the fear of being rejected can cause high levels of stress within transgender families. The medical, legal and administrative aspects of a social gender role transition further compound the high stress levels within transgender families. There are also personal issues for families to consider, which include the emotional responses (positive and negative) from the trans person, the partner, the children, family and friends, and questions about the well-being of the children, about one's sexual orientation and about the relationship with the partner. There are many emotional issues to deal with. Transgender family members are quietly aware of these emotional responses and their consequences, as research has shown that, among adult transgender respondents, the average waiting time between the realization that they are trans and the time of first contact with a professional to talk about these feelings was ten years. The most cited reason not to act according to the felt gender identity was the relationship with their partner and the fear of losing family ties and contact with their children (Motmans, 2010). On many occasions, a burn out, depression, suicide attempt or other severe mental health problem acts as a trigger for an adult transgender person to come out as trans and deal with the aforementioned perceived emotional obstacles.

Far less researched, but nevertheless important to mention, are the situations in which an adult transgender person has a parent of a certain age. Even when these parents have accepted the felt gender identity (and/or social gender role transition) of their child, a re-emergence of shame and going back into the closet may occur when the parent is placed in a residential or nursing home or other care facility. Being confronted with new surroundings, other residents of a similar (older) generation, and care staff, can make it a challenge to explain the trans identity and social gender role transition of their adult child. Social workers and other care staff working in these care facilities are often unfamiliar with such situations, and may benefit from information, education and training.

CLINICAL IMPLICATIONS AND THE ROLE OF PEER SUPPORT

From a clinical practice point of view, and supported by the research literature, it is important to involve partners, family members and the wider social community in securing social support while transitioning (Bockting, Knudson, & Goldberg, 2006; Coleman et al., 2012; Lev, 2004; Zamboni, 2006). Social adjustment, social support, social integration, and meaningful social relationships have become key markers in evaluating the overall quality of life of transgender people; and when applicable, in the evaluation of the treatment process.

Professionals involved in the care of transgender people need to be aware of the different needs of family members, and the challenges they face in a predominantly heteronormative society. Family members often want to be closely involved (Lev, 2009) and sometimes need additional support to deal with their own feelings of shame, rejection or worries about treatment outcomes and future family life. Sometimes, the struggles of addressing gender variance in a family member can create stress-related illnesses or exacerbate other emotional problems (Lev, 2009). Although research data shows that, in the majority of cases, long term partner relations are dissolved during or after a social gender role transition (Motmans et al., 2015), in most cases both partners wish to be supported, as much as possible, to maintain an understanding and loving relationship. Different authors underline the importance of involving significant others in the clinical process, and providing adjunctive counselling for the entire (family) system (Lev, 2009). This suggests that different ‘speed’ processes should be taken into account: the transgender partner often, after years of hiding and personal struggles, wishes to move quickly, whereas the cisgender partner (and/or child) is often perplexed, at first, and in need of time to adjust and process their emotions after the coming out of the transgender partner and/or parent. Research shows that the way in which the transgender partner breaks the news influences, to a large extent, the way the cisgender partner will react: when a confrontation is too sudden and unprepared, the chances are high that the reactions of other family members will be negative. Parental agreement on how to disclose the situation to their child has a positive impact on the overall well-being of the parents and the child (Grenier, 2006). Young children are generally more accepting of a social gender transition than older or adult children (Bischof, Warnaar, Barajas, & Dhaliwal, 2011; Veldorale-Griffin, 2014; White & Ettner, 2004, 2007), whilst teenagers are more likely to take a parent’s social gender role transition personally, which is related to adolescent egocentrism (Reisbig, 2007; White & Ettner, 2004).

Mental health professionals, working with transgender clients, can play an important role in supporting clients and partners in these crucial transition moments, and need to assist the client in making thoughtful decisions about how to communicate with their family members. They also need to be available to family members or to make referrals to colleagues trained in working with families for education, ongoing support, clinical advice, and referral to other professionals, as necessary (Lev, 2009). However, children and parents often experience a lack of knowledgeable, transgender-friendly therapists (Dierckx, Mortelmans, Motmans, & T'Sjoen, under review; Veldorale-Griffin, 2014). Having accessible (online) information available for family members can be an important tool to reach out to family members in need of support. Besides professional support and care, informal peer support can be of the utmost importance for transgender families. Peer support has been acknowledged in the mental health care and therapeutic fields for its important role in informal care (Bracke, Christiaens, & Verhaeghe, 2008). Peer support groups offer psychosocial support free of pathologisation and gate-keeping power dynamics (Rachlin, 2002). Recent research investigating transgender families' experiences of professional psychosocial support has shown that, even when the professional care and support provided by a transgender specialist was perceived to be of good quality, these families compensated for potential shortcomings using informal support systems (Dierckx, Motmans, Mortelmans, & T'Sjoen, under review). The lack of involvement of family members in the care process, as well as the often experienced, too-narrow medical focus regarding the transgender individual's health and transition, can be compensated for by the emotional support and information offered by peer support groups (Hines, 2007). Peer support groups allow members to exchange what is known as "experiential expertise" (Brown, 2009; Schrock, Holden, & Reid, 2004). Furthermore, the feeling of not being alone in this situation, is very important (Citron, Solomon, & Draine, 1999), as peer support groups offer a 'safety net', and peer learning processes are highly effective. The need for peer support can be different for different family members, or can take different forms. Research shows that only half of transgender people have ever been in contact with a trans organisation (Fundamental Rights Agency, 2014; Motmans, 2010), whereas almost all partners show an interest in having contact with another partner in a similar situation (Dierckx, Mortelmans, Motmans, & T'Sjoen, 2015). For instance, witnessing a parent's transition is an unique experience and the child is unlikely to know anyone in a similar situation (White & Ettner, 2007). Potential downsides of peer support groups are the possible pressure to conform to group norms (Bockting et al., 2006), and an increase in the degree of stigma experienced. Participants may feel overwhelmed by other members' stories and the realisation of the difficulties that still lie ahead (Citron et al., 1999; Markowitz, 2015), or they might be discouraged by the possible effect on the family unit. Lastly, peer support groups are based on personal experiences and risk being overgeneralized and overlooking the highly individualized nature of these situations. Depending on personal preferences and the availability, family members can choose between a wide variety of peer support initiatives, ranging from professionally-led self-help groups to member-led groups. These can take different forms, such as group therapy, one-to-one support or online contact through email or in chat rooms (Buxton, 2006; Pistrang, Barker, & Humphreys, 2008). Additional support systems available to particular parts of the family system, such as projects supporting (ex-)partners of transgender people or group sessions for children of transgender parents, have shown their added value in the emotional journey of all family members. Even when only the partner or only a child takes part in these initiatives, the effect of emotional support

can positively impact on the whole family system. Children of a transgender parent are heavily influenced by the reaction of their cisgender parent: if the cisgender parent is supportive of the transgender partner, the chances are markedly higher that the children will be, too, as the parent serves as the chief source of information for children (Dierckx, Motmans, Mortelmans, & T'Sjoen, under review). A cisgender parent's trans negative attitude can significantly influence the relationship between the parents and, consequently, the child's well-being and his/her relationship with the transgender parent (Freedman, Tasker, & di Ceglie, 2002; Haines et al., 2014; Hines, 2006; White & Ettner, 2004, 2007).

Clinicians need to be informed about existing social support networks in the transgender community and are recommended to advise both the transgender individual and all family members to seek this additional form of support. Peer support is considered especially valuable early in the transition process, but becomes less significant when people move beyond the early stages of the transition (Bischof et al., 2011; Hines, 2007). At the same time, the positive and negative effects of accessing peer support groups need to be discussed and to be taken on board in the support processes of the family unit as a whole.

LEARNING POINTS

- Transgender families are confronted with heteronormative family norms in society which influence their own personal acceptance process.
- A supportive social network and stable relationships are vital for the well-being of transgender people and their families.
- Many transgender people have children before they embark on a social gender role transition.
- Within transgender families, a cisgender parent's trans negative attitude can have a significantly negative influence on their child's well-being.
- Young children are generally more accepting of a social gender transition than older or adult children.
- Adjustment to coming out and the wish to make a social gender role transition works at a different 'speed' in transgender families: the transgender partner often, after years of not disclosing the felt gender, wishes to move quickly, whereas the cisgender partner and/or children are often in need of time to adjust and process their emotions.
- Family members, including children, require a supportive, holistic and contextual psychosocial approach from knowledgeable transgender health clinicians and other allied professionals.
- Informal support systems, such as peer support groups (face-to-face or online), offer important added value for transgender families receiving professional support.

FURTHER READING

<http://www.hrc.org/resources/resources-for-people-with-transgender-family-members>.

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Chapter 8

AGING IN TRANSGENDER AND GENDER NONCONFORMING COMMUNITIES

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OVERVIEW

This chapter describes typical concerns that transgender and gender nonconforming (TGNC) people have in late adulthood, related to TGNC risk and resilience, in addition to ways that healthcare providers can support TGNC people through empowerment and advocacy interventions. Because TGNC older adults are a unique group with distinct needs across cultural groups, healthcare providers should be aware of the differing concerns and experiences they may have, in order to provide the most effective support. Psychological factors and sociocultural considerations related to working with TGNC aging adults are discussed. In addition, practice interventions related to different TGNC generational cohorts as they age, grief interventions, and competency development with aging TGNC people are presented.

INTRODUCTION

Transgender and gender nonconforming (TGNC) people have unique and important needs as they move through late adulthood (Hopwood & Witten, 2017). Late adulthood is typically marked by developmental issues such as finding meaning in one's life and reflecting on the completion of life goals (Erikson, 1968). TGNC older adults may have a variety of responses to finding meaning and reflecting on their lives as TGNC people. In addition, while some TGNC people experience anti-TGNC societal attitudes across their lifespan, these negative experiences may increase as TGNC individuals move through later life. For example, TGNC older adults may be embracing their gender identity late in life for a variety

of reasons (e.g., societal stigma, lack of social support), and they may be experiencing anti-TGNC bias as a recent occurrence in their lives.

No matter how recently TGNC older adults come to embrace their TGNC gender identity and expression, they can face anti-TGNC societal bias when they interact with institutions such as healthcare. This anti-TGNC societal bias can be a barrier to receiving adequate healthcare, as TGNC older adults may delay or not seek healthcare access at all - which contributes to an elevated risk of negative health outcomes (Fredriksen-Goldsen et al., 2014). Although the increased health risks and societal stigma that TGNC people face are important for healthcare providers to be aware of, they should also understand that TGNC people may develop resilience in response to discrimination that can be a protective factor (Singh, 2012; Singh, 2015). Therefore, healthcare providers should maintain both a risk *and* a resilience perspective when working with TGNC older adults. Then, healthcare providers can assess the risk that older TGNC adults face in various facets of their world (e.g., relationships, healthcare, work, school) and identify strengths they may have that can help them be resilient to anti-TGNC stigma and bias.

KEY DEFINITIONS, TERMS, AND IDENTITIES WITHIN TGNC AGING COMMUNITIES

Having a solid grasp, knowledge, and training about TGNC-affirming terms is a foundational competency for all TGNC people, and this is also true for TGNC adults in late adulthood (APA, 2015). Although the term “TGNC” is used as an acronym to encompass those who identify their gender differently from the sex they were assigned at birth, healthcare providers should be aware that there is great variance within the TGNC community that should be taken into account when working with TGNC older adults. Within the larger TGNC community, the expression of gender identity varies greatly, with some TGNC people wanting to engage in a social (e.g., name and pronoun changes, gender role change) and medical transition (e.g., hormone treatment, gender affirmation surgery), while others want to pursue a social transition only, or may not identify with the gender binary at all (e.g., genderqueer) (Robinson-Wood & Weber, 2016; Teaster et al., 2016).

Although the terms just described are commonly used within the contemporary TGNC community, TGNC people in late adulthood, who have been living in their identified gender for a long time, may have grown up with very different terms or with no terms at all to describe themselves. For example, the term “transvestite” may no longer be commonly used because it is viewed as a pathologizing term, now. However, for TGNC older adults, there may be terms that they regularly use to describe their personal gender identity. Healthcare providers should be sensitive and culturally-responsive to the individual meanings these self-defined terms hold, as the gender identity terms people use to describe themselves are suggested to be a factor in TGNC resilience (Singh, Hays, & Watson, 2011). People, including healthcare providers, can be tempted to change older TGNC people’s use of terminology, however, they may be better served in striving to understand the context in which these TGNC terms were formed. TGNC older people who have come out more recently, for instance, may use more recent evolutions of TGNC terms, such as “nonbinary” or “gender-fluid”.

In addition, these terms can continue to rapidly evolve in TGNC aging communities. For instance, many TGNC older adults have recently begun reclaiming the term “transsexual” as a point of pride and authenticity in their gender identity. Healthcare providers should be aware that some younger and older TGNC generations may experience tension amongst themselves in the TGNC community due to different and varying language use that tends to be related to generational differences. Healthcare providers can play an important role in helping facilitate intergenerational environments where various TGNC generations can work together to better understand one another and some of the common challenges TGNC people have faced over their lifespan. In addition, there also may be terms that healthcare providers who do not work in older adult settings may not be as familiar with. It is, therefore, important to learn about the appropriate terms to be used when working with TGNC older adults. Some of these terms may be related to housing, legal, healthcare, and other settings which TGNC older adults may access (e.g., hospice care) or activities in which they may engage (e.g., developing living wills). As with TGNC-affirming terms, these issues can rapidly evolve, requiring the acquisition of new knowledge. Other terms to be aware of include knowing that older adults, who identify as TGNC, may express their gender in range of ways. They may select to engage a social transition (e.g., name change) only, while others also seek medical interventions (e.g., hormones, gender-confirmation surgery) to affirm their gender identities (Teaster et al., 2016). Further diversifying this group are individuals who do not experience their gender within the binary of male/female, and identify as gender nonconforming (Robinson-Wood & Weber, 2016). Still others, who transitioned decades ago, may currently be living *stealth* and do not choose to disclose their sex assigned at birth or TGNC identity to others (Cook-Daniels, 2016; Dickey & Bower, 2017).

INTERSECTIONALITY

Other important definitions include those related to cultural identities, such as the term *intersectionality*. Intersectionality refers to the interaction of multiple social identities with TGNC older adults’ gender identity (e.g., sexual orientation, race/ethnicity, immigration status, socio-economic status). Having awareness and knowledge that some TGNC older adult communities may use different terms across cultures is another important area for healthcare providers to understand when providing TGNC-affirming practice with TGNC older adults (APA, 2015). For instance, some cultural groups may use the term “two-spirit,” “masculine of centre,” or other terms that are culturally-embedded and significant ways of defining their TGNC identity.

PROVIDING A WELCOMING ENVIRONMENT FOR TGNC OLDER ADULTS

Healthcare providers can play a large role in developing more accepting and inclusive care environments (Meier & Labuski, 2013). Firstly, healthcare providers can shift their understanding of binary sex or gender to a more fluid definition. For instance, understanding that a person may be assigned a female sex at birth, but outwardly express themselves as a

man. Instead of asking closed questions regarding sex and gender identity, they should allow the older adult to use their own terminology to express themselves.

Open-ended questions can also give TGNC individuals the freedom to explain, in more depth, their current medical issues, what surgeries they might have had, and what hormones they are taking (Meier & Labuski, 2013). Furthermore, many older adults have lived for years as their transitioned self and no longer identify as TGNC, but rather as their experienced gender; physicians should be aware of the social stigma toward TGNC individuals and respect their privacy. Providing a welcoming environment for TGNC older adults would enable them to receive the care they need. A key aspect of a welcoming and affirmative TGNC environment for older adults is to ensure that dignity and respect are intentional aspects of each healthcare interaction.

COMMON CONCERNS OF TGNC OLDER ADULTS

Aging is a universal process, however, individual experiences of aging can vary greatly. Although TGNC older adults experience many of the same age-related changes as cisgender people, there are specific considerations that make the aging process in this group more complicated.

TGNC OLDER ADULTS AND ACCESS TO HEALTHCARE

As TGNC people age, they may increasingly interact with healthcare providers. This increased interaction with healthcare systems can feel challenging to TGNC older adults, as they may have significant experiences of distrust when working with healthcare providers. Because people may engage in a social and/or medical transition at different periods in life, TGNC older adults cannot be viewed as a homogenous group. There are some older TGNC adults who have transitioned much earlier in life and have been very stable in their identity for a long time, whereas other older TGNC adults may have transitioned more recently, and can still be exploring their current gender identity as they interact with society (Bouman et al., 2016). Healthcare providers should also understand that the timing of transition for older TGNC adults can be influenced by many different reasons. For some older TGNC people, their spouse or partner may have been the main reason they were not expressing their gender identity. After their spouse or partner dies, the TGNC older adult finally feels able to express their gender in society. For some TGNC people, as they grow older, they may have been able to save enough money to finance their medical transition and/or have access to TGNC-affirming healthcare. For other older TGNC people, they may simply feel that time is getting shorter and shorter for them to be able to live as their true gender. Evidence suggests that more TGNC women transition in later life, although the exact reasons for this remain unclear (Bouman et al., 2016). Healthcare providers can consider that there may be distinct differences in the types of TGNC identities they work with and the variety of sociocultural influences (discussed further below). For instance, TGNC women may transition later in life, due to safety fears rooted in anti-TGNC cultural norms and societal stigma.

Therefore, healthcare providers should be aware that, within the TGNC older adults group, there are large within-group differences in terms of identity development, in addition to a variety of healthcare experiences and needs. Also, some TGNC older adults know how to advocate for themselves, as they are aware of their healthcare rights and how to access TGNC-affirming healthcare providers. Other TGNC older adults may be less informed, or may have less access to TGNC-affirming resources for older adults, and thus can be more tentative about accessing healthcare at all. There are typically two areas of healthcare that TGNC older adults need to access in order to have the services they need: (1) general healthcare, and (2) TGNC-specific healthcare.

General healthcare concerns are those that both TGNC and cisgender people should address as they move through older adulthood. For instance, it is suggested that older adults should access preventative healthcare for general health concerns, such as colon cancer, blood pressure, diabetes, and heart disease (United States Preventative Services Task Force, 2016). In addition, regular physical examinations and vaccinations may be necessary, as many adults face illness and disease later in life. Although physical health issues for TGNC older adults do not differ drastically from cisgender older adults, there are specific considerations that TGNC older adults must address. TGNC older adults should be connected with healthcare providers that are aware of their TGNC-specific medical care needs. For example, older TGNC women who want hormone treatment may face a higher risk of side-effects from certain types of hormone medical interventions (e.g., thrombosis, cancer risk; Coleman et al., 2012; Weinand & Safer, 2015), and there may be an increased risk associated with TGNC-affirming surgeries (e.g., due to age or pre-existing medical conditions). It is important to note that these increased risks do not preclude TGNC-specific medical treatment, but rather require TGNC older adults being affirmed, informed, and supported in making the best medical decisions for their own lives, related to their gender identity.

Healthcare providers should also consider that routine healthcare, such as mammograms, annual gynecological examinations, osteoporosis screenings, and prostate examinations, may be more complicated for TGNC adults, due to long-term hormone treatment and gender-affirming surgical procedures (Witten & Eyler, 2016), or fear of accessing medical care. In addition, TGNC older adults may have more difficulty accessing TGNC-affirming routine healthcare, as many primary care physicians lack knowledge on TGNC people (Mottet, Tanis, Harrison, Herman, & Keisling, 2011) and their needs during aging.

MENTAL HEALTH FACTORS INFLUENCING TGNC OLDER ADULTS

There are several mental health factors that can influence the overall well-being of TGNC older adults. For instance, coming out to family and friends can be incredibly difficult for TGNC older adults, and many individuals experience rejection from family members (Grant et al., 2011). In order to cope with rejection from families-of-origin, some older TGNC adults form social support networks of friends, or *chosen families* (Giammattei & Green, 2012; Hughes & Kentlyn, 2011). This formation of support is important to the mental health of older adults. Without the protective factor, which is social support, TGNC individuals may be at an increased risk of suicide, homelessness, incarceration, and poorer mental health outcomes (Davey et al., 2014; Fredriksen-Goldsen et al., 2014; Grant et al., 2011). In

addition, because being TGNC is not synonymous with being lesbian, gay, bisexual, or queer (LGBQ), TGNC older adults may not feel a strong sense of belonging within the larger LGBQ community (Fredriksen-Goldsen et al., 2011).

SOCIOCULTURAL CONSIDERATIONS

The marginalization and gender discrimination older TGNC people face is extensive and can multiply over time, especially for those who wait to engage in a social or medical transition in later life (SAGE & NCTE, 2012). An estimated 70% of older TGNC adults report delaying their social and medical transition due to fear of being discriminated against in the work force (Auldrige, Tamar-Mattis, Kennedy, Ames, & Tobin, 2012). Their fear is not unfounded, as Grant et al. (2011) reported that 90% of the working adults sample they included in their study, experienced harassment, mistreatment, or discrimination and close to half were reported to be fired or denied a promotion due to their TGNC identity. Furthermore, in some countries, there are no anti-discrimination laws that would protect TGNC people (NCTE, 2015).

TGNC OLDER ADULT PRACTICE INTERVENTIONS

Healthcare providers working with TGNC older adults often have not received specific training or information related to working with TGNC people, especially TGNC older adults (Dickey & Bower, 2017). This lack of training can place TGNC older adults in the position of having to educate their healthcare providers, families, and social support networks, which can create additional minority stress in TGNC people (Hendricks & Testa, 2012). Minority stress is defined as the stress that people who are marginalized, experience on a chronic, everyday basis (Meyer, 2003). As noted at the beginning of the chapter, as TGNC older adults can experience minority stress, they can also develop resilience that helps them negotiate societal anti-TGNC bias (Singh et al., 2011; Singh, 2012). Much of the practice work with TGNC older adults should have both a minority stress perspective, where healthcare providers seek to understand how TGNC older adults experience the world with attention to trauma and TGNC oppression, and a resilience perspective, where healthcare providers specifically assess the coping skills and strengths that TGNC older adults use to overcome TGNC oppression and live their authentic lives. Some common practice issues related to working with TGNC older adults are described below.

ADDRESSING ISSUES RELATED TO GENERATIONAL COHORTS

One of the consequences of TGNC societal oppression is that TGNC older adults may have come to know their TGNC identity during times of extreme TGNC-discrimination. In response to this societal oppression, TGNC older adults may have selected to live as “stealth,” in that they live as their identified gender without disclosing their sex assigned at birth, or TGNC status, to others. Because of this lack of disclosure, TGNC older adults who are

stealth, or who have been living as stealth for many years, may struggle with issues related to healthcare and identity documents (discussed below), as, in these situations, they may be forced to disclose their sex assigned at birth and/or TGNC identity. Other TGNC older adults are able to embrace their TGNC identity much later in life. For instance, they may feel that they need to wait until their children are grown, or they may struggle with disclosing their identity to their partner for fear that their partner will reject them and end their relationship. In these situations, healthcare providers should be prepared to support TGNC older adults in exploring their difficult, and often competing, needs, such as living their life in their experienced gender and risking rejection from family, friends, and other social support. Healthcare providers can carefully and collaboratively examine these concerns related to gender identity disclosure. Sometimes, a movement activity can help TGNC older adults “see” the choices they have in front of them, related to their gender identity, more clearly, especially for TGNC older adults who are really struggling with the decision as to whether to disclose their TGNC identity to others. For instance, a health professional can designate one side of the room as representing engaging in a social and/or medical transition and then designate the opposite wall as representing their decision to not pursue transition. This movement activity can help a TGNC older adult visually imagine what their life would “look like” or “feel like” by comparing transitioning to not transitioning. This activity can be very visceral, so healthcare providers should be prepared to explore the emotional aspects of such choices (e.g., potential rejection, feelings of sadness and fear).

EXPLORING ISSUES RELATED TO GRIEF

Older TGNC adults, who came out later in life, can feel an immense relief at being able to live and express the gender they have experienced for many years. As they begin to reflect on “years and opportunities lost”, they can experience significant grief. Depression and anxiety can arise in some cases, as a result of this grief. Therefore, healthcare providers should be prepared to validate and explore this grief, as well as be able to refer TGNC older adults to affirming healthcare services. In addition, healthcare providers can encourage TGNC older adults to attend support groups where other TGNC people are exploring issues of aging, grief, and loss.

Grief can also arise for TGNC older adults as they disclose their gender identity to others. Although the TGNC older adult may be feeling comfortable and excited in their gender identity, they may simultaneously be experiencing rejection from loved ones, in their workplace, and/or in public settings. In these situations, healthcare providers can support TGNC older adults to move through this grief and experience sadness, anger, fear, and acceptance, as well as normalizing periods of denial and shock related to this rejection. For these TGNC older adults, a TGNC-affirming health professional can not only feel like a breath of fresh air, but can also be a lifeline for those who experience more serious emotional reactions related to severe grief (e.g., “not wanting to be here anymore), such as suicidal ideation and attempts. Healthcare providers can also serve as advocates (discussed in more detail below), reminding TGNC older adults of the treatment they should be receiving (e.g., respectful, supportive), so that they can experience what it is like to have support in their

gender identity. In addition to excitement, shock, fear and other emotions, older adults may also feel grief for waiting so late in life to transition (Porter et al., 2016).

HEALTHCARE PROVIDER ADVOCACY

Advocacy refers to the practice of helping people who experience marginalization, and is a central role for healthcare providers working with TGNC older adults. There are two major ways healthcare providers can engage in advocacy: in collaboration *with* older TGNC adults, and advocating *on behalf* of older TGNC adults (Lewis et al., 2003). For instance, healthcare providers may work *with* TGNC older adults to collaboratively identify ways to access needed services, or advocate for their rights in various arenas (e.g., housing, legal). Also, healthcare providers may work *on behalf* of TGNC older adults through advocating for more TGNC-inclusive and affirming policies within the setting in which they work (e.g., TGNC-inclusive intake paperwork, single stall toilets). When engaging in advocacy with, or on behalf of, TGNC older adults, there are five common areas related to TGNC older adult advocacy: (a) restroom access, (b) social services and identity documents, (c) access to care, (d) long-term care, and (e) end-of-life issues (Porter et al., 2016). Restroom access is an issue for TGNC people across their lifespan, and there are unique ways that older TGNC adults experience restroom access. For some older adults, who might have identified their TGNC identity later in life and do not “pass” well, restrooms can be especially dangerous places for people in later life. Healthcare providers can ensure that the facilities in which they work have single-stall toilets available in their settings, and advocate for these facilities to be developed if they are not already existing resources.

With regard to social services and identity documents, in some countries, and depending on the age of their social and/or medical transition, some TGNC older adults may not have identity documents that are in alignment with their experienced gender. In some countries, it is very difficult to ensure identity documents are in alignment, due to anti-TGNC laws. In these situations, healthcare providers can be aware of these difficulties and anticipate how TGNC older adults could be assisted in completing identity documents in their identified gender. Identity documents are important, as they provide access to necessary social services that TGNC older adults are often dependent on as they age (e.g., visiting the physician, picking up a medicine prescription). Access to care can also include ensuring TGNC older adults have resources and referrals to TGNC medical interventions should they want these (e.g., hormone treatment), and this often entails having compiled resource lists of TGNC-affirming mental health practitioners who can write letters of referral for these medical interventions.

Because many TGNC older adults will access long-term care (White & Gendron, 2016), this is an additional area of advocacy for healthcare providers. General discrimination towards aging adults can occur in these long-term care institutions and, again, this discrimination can be compounded by TGNC oppression as well (SAGE, 2011). Healthcare providers working with TGNC adults can advocate with long-term care facilities to ensure that the employees have received TGNC training and will use TGNC-affirming language in their interactions with TGNC older adults. For some TGNC older adults, there is such a lack of safety that they feel they must “de-transition”, or hide their TGNC identity. In these cases,

healthcare providers should carefully explore with TGNC older adults this reality, and assess the potential costs of doing this, in terms of mental and physical health outcomes. TGNC older adults may believe they have no other choice in this regard, as they may be experiencing repeated anti-TGNC events in long-term care facilities, or they may have to rely on family members who rejected them when they first disclosed their gender identity. Healthcare providers, in these cases, may be some of the only TGNC-affirming voices TGNC older adults encounter, at a time where they are feeling overwhelmed, discouraged, and frightened about what the future may hold. Healthcare providers can not only be sources of advocacy for TGNC older adults in these situations, but also sources of comfort.

Lastly, end-of-life concerns intersect with many of the areas of advocacy noted by Porter et al. (2016). These concerns, for instance, may be related to access to care, social services, and identity document congruence. Healthcare providers can advocate for TGNC older adults by ensuring there are opportunities to discuss end-of-life concerns, such as wills, living wills, and patient advocates, in addition to what might happen after death, such as religious/spiritual services (e.g., funerals, cremations). Many older TGNC adults may feel anxious about whether their families will use the correct names and pronouns to refer to them after death. Grief is a component of many of these concerns, so healthcare providers can engage in advocacy on behalf of TGNC older adults, by ensuring they can express their desires and fears in these regards.

LEARNING POINTS

- Learn affirming terms that TGNC older adults may use to describe themselves.
- Understand that TGNC older adults are not a homogenous group.
- Be aware that TGNC older adults may have had different gender identities and experiences with healthcare providers, based on their generational cohorts from when they engaged in a social and/or a medical transition.
- Know the typical settings where TGNC older adults may seek healthcare services (e.g., primary care physicians, long-term care facilities).
- Identify the physical and mental health outcomes related to anti-TGNC societal bias, that TGNC older adults may experience in society.
- Understand that TGNC older adults access both general healthcare and TGNC-specific healthcare, and should have access to TGNC-affirming healthcare providers.
- Be aware that TGNC older adults may face some complications if they engage a medical transition later in life, but these complications may not preclude TGNC-medical treatment.
- Read the various competencies and best practices related to TGNC older adult mental and physical health.
- Understand that grief is an important aspect of clinical practice with TGNC older adults.
- Advocate for TGNC older clients in restroom access, identity documents and social services, access to care, and end-of-life issues.
- Understand the need for future research exploring the needs of the TGNC older adult community.

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FURTHER RESOURCES

TGNC Aging Resources

Center of Excellence for Transgender Health

<http://www.transhealth.ucsf.edu>

My Trans Health

<http://mytranshealth.com>

National Center on LGBT Aging

<http://www.lgbtagingcenter.org/resources/resource.cfm?r=507>

National Center for Transgender Equality

<http://www.transequality.org/issues/aging>

SAGE

<https://www.sageusa.org/issues/transgender.cfm>

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Chapter 9

TRANSGENDER AND SEXUAL ORIENTATION

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OVERVIEW

The following chapter focuses on sexual orientation in transgender people. In general, sexual orientation is conceptually different from being transgender. However, both concepts have in common that they may nowadays be understood as continuum-based, rather than as distinct categories (of either female/male or either homo-/heterosexual). This view highlights the possible fluidity in both sexual and gender experiences. From younger transgender populations, we know that gender nonconformity in childhood is associated with non-heterosexual adolescent, or adult sexual orientation outcomes. Nevertheless, the sexual orientation of transgender individuals should not be linked to a possible diagnosis or to the outcome of possible transition-related medical interventions in adulthood. Instead, transgender people show variety with regard to their sexual orientation and may have any sexual orientation that cisgender people may have. Thus, this chapter argues that, although sexual orientation may play an important role in the lifespan of transgender individuals, and may be fluid in the course of people's development, it should not affect decisions regarding diagnosis and transition-related medical interventions. Instead, understanding gender and sexual identity as a matter of degree, and preserving openness towards possible preferences and long-term outcomes, may support transgender health care, and thus improve transgender people's lives.

INTRODUCTION

"Both gender nonconformity and sexual orientation are 'a matter of degree and not of kind.'" (Savin-Williams, 2016)

In the late 1970s, the researchers Suzanne Kessler and Wendy McKenna identified fundamental assumptions that general populations tend to have with regard to human sexuality (1978). Back then, the public believed that there are only two sexes and, therefore, that sex is binary. It was believed that all people must be exclusively assigned to one sex and that sex assignment is fixed and stable for life. The general public thought body features in terms of sex (the sexual characteristics) to be congruent with gender (how people experience and express their gender) and that, finally, there is one real sex of each person. Interestingly, if we think of how sex is assigned to us humans, it seems rather surprising that sex is thought to be generally congruent with gender at all. Either by sonography during pregnancy, or at a glance right after birth, solely based on the appearance of the external genitalia, it is the obstetrician or the midwife identifying the sex of a new-born: “Oh, it’s a boy!” or “Oh, it’s a girl!” This simple impression leads to far-reaching sex-typical expectations of one’s behaviours (e.g., to prefer playing with boys when showing a penis) and feelings (e.g., to identify as a girl when showing a vagina). Similarly, research on sexual and gender identity development has adopted binary concepts of gender and sexuality, which has failed to include the possible multiplicity and fluidity of such experiences (Diamond & Butterworth, 2008). However, even against the background of such understanding, are the assumptions with regard to human sexuality that different nowadays? How have perspectives on the sexual orientations of transgender people changed over recent years, from the past until today? What are possible future developments? And how can perspectives on sexual orientation, and gender identity conceptualizations and their relationship, be important with regard to health care implications for transgender people?

SEX AND GENDER CONCEPTS

Looking back to the 19th century, Karl Heinrich Ulrichs (1825-1895), a German lawyer, was the first to describe homosexual men as individuals with a female soul confined in a male body. In doing so, he laid the theoretical foundation of what was called “transsexualism” in the 20th century. However, according to Ulrichs, the sex of the soul – which we would call gender today (as in identity, experience and/or expression) – explained homosexual behaviours and fantasies (Hekma, 1996). Almost a century later, John Money (1921-2006), a psychologist from New Zealand, brought the sex/gender divide back into sexology (1985). According to his usage, sex refers to biological factors (e.g., sex characteristics) and gender to psychosocial (e.g., gender role, gender expression) and psychosexual factors (e.g., gender identity, gender experience). On the one hand, the sex/gender divide paved the way for thinking of individuals as actually being *trapped in the wrong body*; the paradigmatic metaphor of the 20th-century understanding of transsexualism. On the other hand, nowadays, sex is best understood as more than only biological factors. As a binary concept itself, the sex/gender divide neglects a potential interplay between sex, gender and body, especially in the context of transgender health. Rather, it appears to be important to recognise interdependencies between one’s identity, behaviour and body and to understand how each aspect may specifically influence one’s development into being a woman, a man or everything beyond (e.g., genderqueer, agender; Richards, Bouman, Seal, Barker, Nieder, & T’Sjoen, 2016) within a particular society.

More recently, researchers are beginning to view both sexual orientation and gender identity as multidimensional (Katz-Wise, Rosario, Calzo, Scherer, Sarda, & Austin, 2016) and even continuum-based, rather than as binary categorical concepts. Although sexual orientation is conceptually different from being transgender, and a different concept than gender identity in general (Plöderl, Mahler, Nieder, & Mundle, 2017), both experience a shift towards an understanding as a continuum. Savin-Williams (2016) recently questioned an overview on sexual orientation, following a distinct categorical perspective published by Bailey et al., (2016). Although Bailey et al. (2016) argued that childhood gender nonconformity was “not an either or trait but, rather, a dimensional one,” and thus “a matter of degree and not of kind,” they did not apply this view to sexual orientation. Thus, Savin-Williams (2016) argued that both concepts would benefit from being assessed as a continuum. In order to understand the link between these concepts, one should start by looking at the history of sexual orientation, as well as its possible origins and developmental pathways in childhood and adolescence.

THE ROLE OF SEXUAL ORIENTATION IN THE PAST

According to Magnus Hirschfeld (1868-1935), a German physician, homosexuality, transvestitism and transsexualism were natural sexual variations with a biological basis (Hirschfeld, 1910). For the first time, Hirschfeld used the term “transsexualism” in his *Jahrbuch für sexuelle Zwischenstufen* (Yearbook of Sexual Intermediaries; Hirschfeld, 1923), describing the most extreme and distinct ‘transvestites’ as individuals who strive for a complete sex transformation. However, although he has not considered sexual orientation as a critical aspect of his assessment of someone as being transsexual, the role of sexual orientation in the context of transgender, and its link to the outcome of transition-related medical interventions (TRMI; e.g., sex hormones, breast- and genital reconstructive surgery), has been questioned (Hirschfeld, 1910). Since then, many medical and mental health professionals have regarded the anticipated post-transitional heterosexual behaviour of transgender individuals as predictive of a good outcome of TRMI (Blanchard, 1985, 1988, 1989; Smith, Van Goozen, Kuiper, & Cohen-Kettenis, 2005a, 2005b). For a long time, professionals who endorsed surgery set up a gatekeeping system based on sexual orientation in order to regulate the number of requests for TRMI. Only those transgender people living according to heteronormative (meaning relating to a world view that promotes heterosexuality as the normal or preferred sexual orientation) conventions of gender and sexuality were approved for TRMI. That meant that a clearly binary identity (either male or female, neither in-between nor beyond), and an exclusively heterosexual orientation (no non-heterosexual relations post-transition; Meyerowitz, 2002), were mandatory. Consequently, access to TRMI was limited to transgender people who presented themselves as being able to live as cisgender and heterosexual, as the identified gender was expected to be (Stryker, 2008).

Additionally, sexual orientation was explicitly applied as a specifier for diagnostics in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) in 1980. Transsexualism was first considered as a diagnosis in the 3rd DSM edition (APA, 1980). It was in 2013, that the DSM-5 was the first edition with no diagnosis referring to sexual orientation at all. With regard to the official removal of homosexuality as an independent diagnosis from the DSM-II

in 1973, it took 40 years to free the DSM from any statement linking sexual orientation to a mental disorder (Lev, 2013). Moreover, the way sexual orientation was used as a specifier in the DSM-IV-TR (APA, 2000) appeared to be reductionist, coding only if people are sexually attracted to males, females, both, or neither. Compared to the DSM, in the World Health Organization's *International Classification of Diseases* (ICD) there were no subtype specifiers in the context of gender dysphoria in the ICD-8/9 diagnoses of transvestitism (1965) or transsexualism (1975), nor in the ICD-10 diagnoses of transsexualism (1990). Furthermore, sexual orientation was often generally categorized based on the sex assigned at birth, instead of defining sexual orientation in relation to the self-identification of trans people (Bockting, Benner, & Coleman, 2009). In sum, in most transgender-related research and diagnostics, sexual orientation was, and still is, assessed in a somehow one-dimensional and reductionist manner, relying on one factor only - identity (e.g., Colizzi, Costa, Scaramuzzi, Palumbo, Tyropani, Pace, Quagliarella, Brescia, Natilla, Loverro, & Todarello, 2015; Gorin-Lazard, Baumstarck, Boyer, Maquigneau, Penochet, Pringuey, Albarel, Morange, Bonierbale, Lancon, & Auquier, 2013). Against this background, transgender individuals historically feared that certain information would be used to deny them access to TRMI. The fear of being excluded from treatment may still play a role in transgender community discourses, with a "strong resistance against subtyping on the basis of sexual orientation... and even against having to give this information for scientific purposes only." (Cohen-Kettenis & Pfäfflin, 2010).

Fortunately, this position has recently been challenged, given that "sexual attraction [sexual orientation] per se, plays only a minor role in contemporary treatment protocols or decisions" (Zucker, Cohen-Kettenis, Drescher, Meyer-Bahlburg, Pfäfflin, & Womack, 2013). Reporting cases of a sexual orientation towards men among transgender men, instead of a sexual orientation towards women, Coleman, Bockting, and Gooren (1993) challenged such gender transposition theories. With their case study, the authors indicated that a homosexual orientation of transgender men towards males could no longer be viewed as a risk factor for the outcome of TRMI (Coleman et al., 1993). Moreover, a study from the European Network for the Investigation of Gender Incongruence (ENIGI) showed that age of onset has a discriminative value for developmental trajectories of trans people and leads to presumably more reliable data than sexual orientation (Nieder, Herff, Cerwenka, Preuss, Cohen-Kettenis, De Cuypere, Hebold Haraldsen, & Richter-Appelt, 2011). Also, in diagnostic manuals or current proposals this policy has been re-worked (American Psychiatric Association, 2013; Drescher et al., 2012). By providing a deeper understanding of the sexual identities of transgender men, and reporting on an emergence of a transgender sexuality, Bockting et al. (2009) further informed the debate around the classification of transgender people based on their sexual orientation.

GENDER NONCONFORMITY IN CHILDHOOD AND ADOLESCENT/ADULT PSYCHOSEXUAL OUTCOME

From childhood gender nonconforming populations, and research on the persistence and desistence of transgender development into adolescence, we know that childhood gender nonconformity is strongly associated with a non-heterosexual outcome during adolescence

(for overviews see Bailey & Zucker, 1995; Ristori & Steensma, 2016; Steensma, McGuire, Kreukels, Beekman, & Cohen-Kettenis, 2013; Steensma, van der Ende, Verhulst, & Cohen-Kettenis, 2012; Zucker, 2014). Only recently, a large representative US study showed that transgender individuals have higher levels of recalled childhood gender nonconformity and are more likely to have a sexual orientation that is not completely heterosexual, compared to cisgender individuals (Reisner et al., 2014). In addition, gender nonconformity has been described as a dimensional trait (Bailey et al., 2016), probably due to its potential developmental fluidity throughout the lifespan. Questioning one's own sexual and gender identity, or a (temporary) fluctuation in gender experience, is part of most children's developmental process when transitioning into adolescence and adulthood (Shields, Cohen, Glassman, Whitaker, Franks, & Bertolini, 2013). However, it may be that for most heterosexual individuals, developmental pathways are different from non-heterosexuals and are marked by continuous identity exploration (Savin-Williams & Vrangalova, 2013; Thompson & Morgan, 2008), whereas sexual minority adolescents are a more vulnerable group because of their experiences of prejudice and discrimination (Katz-Wise et al., 2016). Similarly to transgender adolescents, for Lesbian, Gay, and Bisexual (LGB) youth the minority stress model proposes that experiencing stigmatization because of one's sexual orientation or gender identity leads to negative mental health outcomes (Bockting, 2016; Grossman & D'Augelli, 2007; Katz-Wise, 2014; Katz-Wise et al., 2016). Thus, sexual minority development might follow different trajectories than the average heteronormative developmental pathways. Consequently, in health care, it seems important to understand such variability across gender and sexual orientation in order to promote well-being in the long-term.

For some children or adolescents with gender non-conforming experiences, such experiences might develop into, or be associated with, a strong experience of gender incongruence (for the ICD-11 proposal see Drescher, Cohen-Kettenis, & Winter, 2012; Drescher, Cohen-Kettenis, & Reed, 2016), or clinically relevant gender dysphoria (for the DSM-5 category see American Psychiatric Association, 2013). Most studies on young individuals who present with gender nonconformity, argue that a homosexual orientation is a developmental trajectory that is more likely than a persistence of gender incongruence in adolescence (Drummond, Bradley, Peterson-Badali, & Zucker, 2008; Green, 1987; Wallien & Cohen-Kettenis, 2008), and that this outcome becomes clear around the early stages of puberty (Steensma, Biemond, de Boer, & Cohen-Kettenis, 2011). For sexual minority youth, different patterns of timing of developmental milestones occur during different stages of early and late adolescence (e.g., D'Augelli, 2006; Floyd & Bakeman, 2006; Katz-Wise, 2014).

However, assumptions on the number of developmental pathways in transgender children and adolescents are increasingly being criticized due to their possible lack of generalizability to gender dysphoric/transsexual cases (e.g., Olson, 2016). Recently, more than two possible developmental pathways have been mentioned (Steensma & Cohen-Kettenis, 2015). With regard to any adolescent development, there are probably many unique developmental pathways of sexual orientation and gender identity, which might be disregarded in their range due to methodological and, especially, sampling difficulties (Katz-Wise et al., 2016; Savin-Williams, 2016). For adolescents, and those who are still developing their sense of gender identity, fluidity might be equally present in gender identification. Nevertheless, considering the vulnerability of the early developmental stages of transgender adolescents and their periods of transition (Bockting, 2016; Connolly et al., 2016; Frohard-Dourlent, Dobson,

Clark, Doull, & Saewyc, 2016; Steensma, et al., 2013), creating a link between the development of sexual orientation and gender identity might be of value in clinical decision-making. Careful evaluations, in order to avoid false-positive clinical decisions with irreversible long-term consequences, might be more important for those who might continue their lives without following a transgender pathway but, instead, developing a non-heterosexual, sexual identity. Some developmental milestones, like coming out, might develop later in adolescence (Katz-Wise, et al., 2016). However, all of such developmental pathways, whether they are related to a transgender or non-heterosexual orientation outcome, might be more fluid than we currently know and, thus, the prediction of such outcomes is difficult. Research on non-heterosexual, fluid, or non-binary genders and sexualities is still sparse. More knowledge could help promote the rights and well-being of sexual and gender minorities. In order to be able to keep the best interest of a possibly transgendered child in mind, during a time with only limited existence of empirical evidence about the long-term outcomes, relationships between sexual orientation and gender development in younger years should be further explored.

THE ROLE OF SEXUAL ORIENTATION IN THE PRESENT

Sexual orientation has been shown to be a complex phenomenon. It encompasses at least three different dimensions: (1) sexual behaviour: having sex with one or more groups of partners, (2) sexual identity: self-labelling as lesbian (L), gay (G), bisexual (B), asexual, pansexual, queer, or questioning, and (3) sexual attraction: to whom you feel sexually attracted or have sexual fantasies about. From a constructivist perspective, sexual orientation can be understood as a heterogeneous social construct, rather than a uniform phenomenon with an (essentialist) biological foundation (e.g., there may be as many different causes as there are different heterosexualities and homosexualities). Recently, van Anders (2015) proposed a comprehensive “Sexual Configurations Theory” to integrate gender/sex and “diverse partnered sexualities” in a comprehensive framework, in order to reflect “real people’s lived experiences.” The bottom line is that transgender people may have any sexual orientation that cisgender people have (cisgender people identify with the gender that is commonly associated with their sex assigned at birth). Nevertheless, it appears that transgender individuals are diverse in their sexual orientations and identities and could be attracted to men (androphilic) or women (gynephilic), both (bisexual), neither (asexual) or other (queer, transgender, intersex, etc.; e.g., Doorduyn & van Berlo, 2014; European Union Agency for Fundamental Rights, 2014; Kuper, Nussbaum, & Mustanski, 2012; Scheim & Bauer, 2014). Transgender people may have any sexual preference that cisgender people may have, including such things as Bondage and Discipline (BD), Dominance and Submission (DS), Sadism and Masochism (SM; the overlapping abbreviation: BDSM) and/or other kink sexualities (Cerwenka, Nieder, Cohen-Kettenis, De Cuypere, Haraldsen, Kreukels, & Richter-Appelt, 2014; Richards & Barker, 2013, 2015). Population-based studies show that there are higher rates of non-heterosexual orientations (e.g., homosexual or bisexual) in transgender and genderqueer or non-binary persons (Kuyper & Wijsen, 2014; Van Caenegem et al., 2015). Moreover, several studies found a considerable fluidity in sexual orientation over time, especially for cisgender women (Diamond, 2000; Diamond & Butterworth, 2008) and a

change in sexual orientation of some transgender people during transition (Auer, Fuss, Hohne, Stalla, & Sievers, 2014; Cerwenka, Nieder, Cohen-Kettenis, de Cuypere, Haraldsen, & Richter-Appelt, 2014; Coleman & Bockting, 1989; Lawrence, 2005; Rowniak & Chesla, 2013). Consequently, there are a great many reasons or motives for a transition that are mostly to do with the search for an authentic expression of self, regardless of the identification as either “male/female” or either “hetero-/homosexual.” However, neither motive should be generally seen as less relevant than the other, and respect for the individual’s own narrative should be considered paramount, whether or not sexual orientation and/or (non-)binary identity play a key role in that. Continuum-based approaches towards the sexual orientation of women, men, and gender nonconforming people may contribute to the acknowledgement of its complexity (Savin-Williams, 2016).

THE ROLE OF SEXUAL ORIENTATION: WHAT’S NEXT?

Fortunately, nowadays there is increasing recognition and acceptance of sexuality and gender diverse people (e.g., LGB, transgender (T), genderqueer or non-binary) as well as increased attention to LGBT negativity and health disparities (Cahill, Singal, Grasso, King, Mayer, Baker, & Makadon, 2014; Plöderl et al., 2017; Whitmann & Bidell, 2014). However, in light of the “transgender bathroom fights” in the United States of America, when proponents wanted to ban transgender people from using bathrooms that match their gender identity, anti-liberal and transgender-negative forces became visible. Although the Obama administration issued a directive telling public school districts to allow transgender students to use matching bathrooms, recently, some judges blocked Obama’s transgender bathroom mandate. A heated debate sparked around transgender politics, bathrooms and sexual orientations. Obviously, as long as the general public views the binary understanding of sex (women and men only) as obligatory, and heterosexuality (men are exclusively sexually attracted to women and women are exclusively sexually attracted to men) as the norm (summarized by the term heteronormativity), transgender people will continue to experience discrimination and ostracism, face rejection by their families, friends and colleagues, and become invisible in their own communities.

Fortunately, in the last five to ten years, within the context of health care for transgender people, a paradigm shift has taken place, from a disorder-based model of care to a distress-based assessment of clinical need (Bockting, 2009; Nieder & Strauss, 2015). The binary understanding of gender, and a treatment focused on cross-gender TRMI in order to pass as the *other* sex (Bockting & Coleman, 2007), are linking sex to gender, to gender role, and to sexuality, instead of to gender experience (Richards et al., 2016). This paradigm shift no longer links TRMI to passing, but rather to the facilitation of the coming out process (Bockting & Coleman, 2007). Although a first study has reported on diverse treatment requests in some TRMI applicants, the relationship between TRMI wishes and non-binary or gender nonconforming identities needs to be further assessed in the future (Beek, Kreukels, Cohen-Kettenis, & Steensma, 2015). The core of this shift is built on the position that transgender people are not considered to have a (mental) disorder by solely being transgender (World Medical Association, 2015). Moreover, it is recognized that there are various possibilities for both experiencing/expressing gender and being in need of TRMI (Bockting,

2008; Richards et al., 2016), and that sexual orientation is neither a differential diagnosis nor a diagnostic specifier (APA, 2013). According to a comprehensive review of the empirical literature between 2010 and 2015, there is no generalizable impact of sexual orientation on the diagnosis and the health-care-related outcome of TRMI (Nieder, Elaut, Richards, & Dekker, 2016). Rather, transgender people of all sexualities can profit in the long run (Murad, Elamin, Garcia, Mullan, Murad, Erwin, & Montori, 2010; White Hughto & Reisner, 2016). Therefore, perceiving both gender identification and sexual orientation as possibly continuum-based, has the potential to promote the well-being of all sexual and gender minorities.

CONCLUSION

In conclusion, sexual behaviours, attractions and identities, as well as gender experiences and expressions, are fundamental aspects of one's self and might be more complex than assumed in the past. From the general population, however, we know that gender identities beyond "congruent" or clearly "incongruent" experiences exist (Kuyper & Wijsen, 2014; Van Caenegem et al., 2015), and that gender identification might be more fluid than it has been assumed in the past (Joel, Tarrasch, Berman, Mukamel, & Ziv, 2013). Just as individuals should be free to self-identify their gender, individuals' complex experiences of sexuality should be acknowledged. In order to collect differentiated information about transgender people's lived sexualities, we recommend explaining clearly, detailing why talking about sex is of interest in the health care setting. To have equal opportunities for living a healthy life, transgender people need access to health care, which addresses their specific needs, but with equal accuracy, attention and respect as is provided for cisgender people. Modelling sexual and gender experiences in more complex, fluid, and multiplied ways can lead to a better understanding of diverse developments, and thus help improve outcomes.

LEARNING POINTS

- Sexual orientation is conceptually different from being transgender.
- Both sexual orientation and gender identity can be conceptualized as a fluid continuum, rather than being reduced to distinct categories.
- In younger years, gender nonconformity is associated with adolescent or adult sexual orientation outcomes.
- Transgender people may have any sexual orientation that cisgender people may have.
- Transgender people show greater variety with regard to sexual orientation.
- The sexual orientation of transgender individuals is linked neither to a possible diagnosis in the context of transgender, nor to the outcome of possible transition-related medical interventions.
- Transgender people of all sexualities and all gender identifications can profit from transition-related medical interventions.
- Sexual orientation may play an important role in the life course of transgender individuals, but may be fluid in the course of their development.

- Understanding both gender experience and sexual orientation as a matter of degree, may help improve mental health outcomes and, thus, transgender health care.

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Chapter 10

SEXUALITY AND RELATIONSHIPS OF TRANSGENDER PEOPLE

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OVERVIEW

Sexuality and relationships are vital parts of almost everyone's quality of life, including transgender individuals. While, in the past, being transgender was often considered a 'hyposexual' state, or a state in which little or no sexual desire or sexual activity was assumed, we know today that this is not the case. Most transgender men, transgender women and genderqueer individuals strive for a fulfilling sexual life and a meaningful partnership. This chapter will cover three subjects. Firstly, an overview will be presented of the experience of sexuality in transgender people in the context of genderconfirming treatment (medical interventions aimed at obtaining more alignment between gender identity and body). Secondly, several aspects regarding sexual orientation (whom we feel sexually attracted to) will be discussed. Finally, a brief discussion regarding the potential consequences for partner relationships of being transgender and transitioning will be presented.

INTRODUCTION

While the overview presented here might sound rather binary, the authors wish to stress that, both in cisgender and transgender people, the overlap between male and female (in characteristics, as well as in identity) has always been greater than any difference (Maccoby & Jacklin, 1974). The transgender community is, hence, much more broad than transgender

men and transgender women and, as some say, might span a ‘gender galaxy’ (Richards, Bouman, Seal, Barker, Nieder, & T’Sjoen, 2016). Having a transgender identity does not always equal a desire for genderconfirming interventions. For example, some transgender men clearly identify as male, but do not wish to undergo a phalloplasty (surgical intervention to create a phallus), due to the current limitations of this surgery (Bockting, Benner, & Coleman, 2009). Some genderqueer individuals might wish to remove obvious markers of their masculinity, without a desire to obtain a feminine appearance, while maintaining a non-binary identity. Current research on non-binary gender identities and suitable genderconfirming treatments is almost non-existent (Richards, Bouman, Seal, Barker, Nieder, & T’Sjoen, 2016).

In the past, transgender health care has often labelled transgender people as ‘asexual’ or ‘hyposexual’ (implying that sex would not be desired or would be desired less) (Person & Ovesey, 1974a,b; Pomeroy, 1969). While gender identity (or the sense of being male, female, genderqueer or otherwise) and sexual identity (or how we desire to shape our sexual acts) are two distinct concepts, it is not uncommon for transgender people, especially those with a desire for at least some genderconfirming treatment, to feel hampered in their sexual expression, alone or with a partner. Sexuality is, inevitably, an act that confronts all of us with the reality of our bodies. As is often the case in people diagnosed with gender dysphoria (the official DSM-5 diagnostic term, describing the *distress* stemming from the incongruence between assigned and experienced gender identity) (APA, 2013), the feelings of body dysphoria, sometimes accompanied by severe genital aversion, are very contradictory to the desired and positive nature of sexual pleasure. Gender dysphoria and bodily dysphoria may inhibit the desired sexual expression, as the body is often experienced as standing in the way of engaging in the desired sexual acts (e.g., a transgender woman wanting to be touched on a breast she does not yet possess, a transgender man wanting to feel close to one’s partner by having active, penetrative sex, etcetera). At the same time, European research has shown that the majority (80%) of individuals consulting a transgender health clinic, have had sexual experiences with a partner. About half of these also involve their genitals in partnered contact, although only a minority (10 to 15%) indicate pleasurable genital sensations. Apart from these experiences with a partner, the majority of transgender people have masturbated before starting genderconfirming treatment (Cerwenka, Nieder, Cohen-Kettenis, De Cuypere, Haraldsen, Kreukels & Richter-Appelt, 2014a). We can, thus, safely conclude that the idea of transgender people not being sexual creatures is over-simplistic. Transgender people can be sexually active before, during and after their transition. Both health care providers and individuals considering undergoing genderconfirming treatment, should have clear information on the potential sexual effects of these treatments. While sex research in transgender people is in its infancy (Klein & Gorzalka, 2009), an overview of the current knowledge of the possible effects on sexual functioning is summarized below. The scheme of the ‘sexual response cycle’, as used in sexology, serves as a structure to present the available knowledge. The sexual response cycle describes the different phases as they can occur during sexual activity. Typically, a sexual response cycle encompasses the experience of sexual desire, sexual arousal, a plateau phase (indicating a persistently strong level of arousal), followed by orgasm and a refractory phase, before a new cycle can commence (Masters & Johnson, 1966). Obviously, sexual experiences are very diverse and numerous sexual scenarios exist.

POTENTIAL EFFECTS OF GENDERCONFIRMING TREATMENT ON SEXUAL LIFE

Sexual Effects of Hormone Treatment

As explained in other chapters in this book, hormone treatment in transgender men may consist of synthetic progestins (e.g., lynestrenol, medroxyprogesterone acetate ...) to interrupt menstrual bleeding, and testosterone to achieve a more masculine body and sex characteristics. In transgender women, hormone treatment may consist of medication suppressing testosterone (anti-androgens, e.g., GnRH analogues, cyproterone acetate, spironolactone, finasteride, ...) to decrease masculinization (diminishing body hair, frequency and firmness of erections, muscle volume and strength, etcetera) and oestrogens to achieve a more feminine presentation (breast development, softer skin, etcetera). These hormones (progestins, anti-androgens, testosterone and oestrogens) play an important role in several aspects of human sexuality (Bancroft, 2009). For instance, in assigned male individuals testosterone is often necessary to achieve penile erections. The role of testosterone in assigned female individuals is less clear, while oestrogens clearly play a role in sexual desire, vaginal lubrication (a part of the sexual arousal response), pleasure, and orgasmic capacity (Dennerstein, Burrows, Wood, & Hyman, 1980).

Based on the knowledge of these hormones in assigned females and males, a number of hypotheses can be made regarding the potential effects of hormone treatment in transgender individuals. By blocking testosterone production, or the androgen receptor, in transgender women, a downturn in sexual desire and sexual arousal might be expected. An increase of testosterone in transgender men could, conversely, stimulate sexual desire and arousal, at least when treatment is aimed at achieving normative cisgender male testosterone blood levels.

Sexual Effects of Genderconfirming Surgery

Genderconfirming surgery can involve any number of interventions, depending on the personal desire of the transgender individual. As described in other chapters in this book, interventions in transgender men may consist of mastectomy (removal of the breasts), hysterectomy/ovariectomy (removal of uterus and/or ovaries), metaoidioplasty (transforming the clitoris into a microphallus), vaginectomy (removal of all or part of the vagina), phalloplasty (creation of a phallus) and scrotoplasty (creation of a scrotum). A penile implant is required to obtain an erection, if one wants to engage in penetrative sex (Hoebeke, Decaestecker, Beysens, Opdenakker, Lumen & Monstrey, 2010). In transgender women, surgery can consist of vaginoplasty (creation of a vagina), clitoroplasty and labiaplasty (creation of a clitoris and labia), orchiectomy (removal of the testis) and, in some cases, breast augmentation.

It is not surprising that, in general, sexual functioning after genderconfirming surgery is strongly associated with the satisfaction of surgical outcome (Lawrence, 2003). When invasive surgery is performed on body parts so crucial for sexual functioning, damaging the sensitivity of the genitalia (although uncommon) is always a risk. Complications leading to

unsatisfactory sensitivity and functionality can hamper sexual (re)development after physical recovery, e.g., insufficient depth to allow intercourse after vaginoplasty, or modified sensitivity due to ‘covered sensitive parts’ after phalloplasty (Doorduyn & van Berlo, 2014). Also, different surgical techniques will lead to different results (Schroder & Carroll, 1999).

1. Effects of Genderconfirming Treatment on Sexual Desire

Sexual desire (still often referred to as ‘libido’) refers to fantasies and thoughts on, or desire towards, sexual activity. Sexual desire can be experienced as occurring ‘spontaneously,’ but is mostly the result of the (conscious or unconscious) appraisal of a sexual stimulus (e.g., image, sound, memory, touch, or smell) that is meaningful to that individual (Everaerd, Laan, Both, & Spiering, 2001).

No studies have adequately measured the intensity and frequency of sexual desire before, during and after genderconfirming treatment. Drawing conclusions on the aforementioned hypotheses (of decreasing sexual desire in transgender women, especially after starting hormone treatment, and of increasing sexual desire in transgender men) is, hence, difficult. Or, put differently: we don’t really know how specific medical steps to aid transition change sexual desire. A few researchers have looked into the experienced sexual desire of transgender women and transgender men following both hormone treatment and genital surgery. These studies showed that the sexual desire of transgender women and men who have medically transitioned was comparable to the sexual desire of cisgender women and men, respectively (Elaut et al., 2008; Wierckx et al., 2011a; Wierckx et al., 2014).

Putting all studies together, when these transgender women and men (after both hormone therapy and genital surgery) are asked, in retrospect, to state whether treatment has decreased, increased or has not affected their sexual desire, remarkable results emerge. The majority of transgender women (70%) report a decreased sexual desire after treatment, while a minority report an increase (10%) or no effect (20%). For transgender men, the picture is reversed: the majority report an increase (70%), while a minority report a decrease (10%) or no effect (20%) (Elaut, 2014).

Experiencing an increased or decreased sexual desire after genderconfirming treatment does not, of course, always need to be a problem. Most transgender women and men welcome these changes, as they value a sexual functioning more closely resembling the ‘typical’ functioning of the cisgender members of their identified gender (Doorduyn & van Berlo, 2014). There is, however, a subgroup of transgender women (about one in five) that experience distress from their decreased sexual desire (after hormone therapy and vaginoplasty). It is unclear to what degree this subgroup of transgender women struggle with developing a sexual desire which is now less driven by testosterone and more by mental processes, compared to before gender confirming treatment. Both decreased sexual desire (5%) and too much sexual desire (3%) after treatment, are much less of a concern for transgender men (Elaut, 2014). In any case, genderconfirming treatment will always demand a sexual (re)development by the individual and the partnership. If the distress concerning sexual desire persists, looking for a sexologist experienced in transgender health care can be helpful. Transgender women who experience distress regarding decreased sexual desire, can talk to their endocrinologist or general practitioner to try a low dosed androgen supplement to substitute for the often very low blood levels of free testosterone (Elaut et al., 2008).

This observation of most transgender women experiencing a decreased sexual desire, and most transgender men experiencing an increase, appears to partly confirm the hypotheses on

the potential effect of mostly hormonal treatment on sexual desire. Of course, during the course of genderconfirming treatment, much more is happening than merely hormonal changes. The body is developing the desired sex characteristics and features, gender dysphoria starts to decrease, self disclosure leads to being misgendered less often, and so on. All these factors might potentially influence sexual desire, as well.

2. Effects of Genderconfirming Treatment on Sexual Arousal

The term 'sexual arousal' usually refers to the increased blood flow to the genitals, presenting as penile erection in assigned males and vaginal lubrication and clitoral engorgement and erection in assigned females, accompanied by a general activation response in the rest of the body (increased heart rate and breathing).

In transgender women, only one group of researchers has assessed women's experience of sexual arousal before and after genderconfirming treatment (here defined as hormone treatment and genital surgery) (De Cuypere et al., 2005). Transgender women clearly state they experienced more sexual arousal after treatment. This observation is not in line with earlier hypotheses stating that a decrease in sexual arousal can be expected, especially after hormonal treatment. It is, again, very likely that other factors, such as increased self-esteem, having completed social and physical transition, feeling more comfortable with one's body, including genitalia, and being able to allow sexual exploration (alone or with and by a partner), play a role in this.

Psychophysiological studies can observe the increased blood flow by vaginal plethysmography, a method that is able to measure the vasocongestion (blood flow) while offering sexual stimuli in a laboratory environment. One study shows that transgender women experience an increased blood flow to the genitals when offered erotic stimuli, although the increase would be a little less compared to cisgender women (Lawrence, 2005). This observation is confirmed by findings of De Cuypere and colleagues (2005), showing that two thirds of transgender women experience the secretion of vaginal fluid during sexual excitation (possibly caused by leaving the Cowper's glands and the prostate intact). Since this natural lubrication is insufficient in half of transgender women following vaginoplasty surgery, it is always advised to use lubricants during penetration.

In transgender men, the experience of sexual arousal has received even less attention. While psychophysiological measures (penile plethysmography) are available to measure the rigidity of penile erections, this lack of research is probably due to the limitations of current surgical techniques, especially phalloplasty surgery. Current techniques do not provide the possibility to obtain an erection as an involuntary response to sexual stimuli. After having a prosthesis implanted, transgender men can achieve an erection (depending on the nature of the implant used), but still never in an involuntary manner. One study has asked for the experience of sexual arousal before and after genderconfirming treatment. More transgender men reported sexual arousal after treatment (De Cuypere et al., 2005), which is in line with the earlier hypotheses. Also, transgender men who underwent phalloplasty surgery, with and without erection prosthesis, did not differ with regards to getting aroused easily (Wierckx et al., 2011b).

3. Effects of Genderconfirming Treatment on Orgasm

Whether or not transgender women and transgender men can achieve orgasm after genital surgery, is one of the most researched topics in the field of sexual health in transgender

people. Percentages for ‘orgasm capacity,’ reported by transgender women during the last few decades, differ considerably across studies and countries, and rates between 27% and 100% are reported (Klein & Gorzalka, 2009). Not surprisingly, percentages of reaching orgasm during masturbation are higher (65%) compared to orgasm rates through intercourse (50%) (De Cuypere et al., 2005). This is also found in the general cisgender population (60% versus 25% in cisgender women, respectively) (Laumann et al., 1994). Even more important than the absolute percentages of transgender women being able to reach orgasm after genital reconstructive surgery, is the question of a possible change in this capacity compared to before treatment (for example orgasmic before treatment and anorgasmic after). Some studies state that a number of transgender women lose their orgasmic functioning after vaginoplasty surgery (Blanchard, Legault, & Lindsay, 1987; Lief & Hubschman, 1993), while others report an improved orgasmic functioning (Rakic et al., 1996). A conclusion on the specific direction of this change is hampered by the observation that some individuals only allow themselves to start a sexual relationship with a partner, or only start their own sexual discovery, after vaginoplasty surgery. It is also likely that an evolution is seen in the way sexuality is experienced. Before treatment, sex is sometimes merely practised as it is expected to be part of a relationship, or it is a way to relieve tension. After surgery, a more active and exploring attitude is often observed. Possibly, the results of some studies can be explained by transgender women still being in a sexual development phase, or adjusting to the new anatomical situation. During this time, it is possible they have not yet acquired sufficient skills in how to deal with their new genitalia. We should never forget that obtaining an orgasm is not only about functional nerves and adequate hormone therapy, but as much about knowledge, skill and experience.

In addition, while looking at the orgasmic capacity reported in transgender women, we should always keep in mind the ‘orgasm gap’ between cisgender men and cisgender women in the general population. Especially during partnered sex, cisgender women have orgasms less frequently than men (25% of women versus 79% of men) (Laumann et al., 1994). While this is often attributed to different anatomy, this is just as much about a lack of knowledge concerning the most pleasurable female body parts (the clitoris being the crucial organ, and not the vagina). The idea that ‘women just aren’t as sexual or don’t care as much about orgasms,’ or the cultural ‘sexual script’ of idealized (mostly heterosexual) encounters emphasizing penis-in-vagina intercourse and a ‘vaginal’ orgasm in the woman, maintain the myth (Matsick et al., 2016). Despite the cultural emphasis on the vaginal orgasm, Masters and Johnson (1966) have already shown no differences between the physiological responses of internal and external orgasms (the same contractions in the pelvis, muscle spasms, breathing, etcetera). Because the clitoris extends into the vaginal cavity (apart from its external ‘glans,’ or top, the clitoris also has erectile tissue extending into the body: two bulbs, corpora and crura), internal orgasms are probably triggered by this erectile tissue (wrapped around the vagina) being stimulated through the vaginal wall during penetration (O’Connell et al., 2005). Very likely, this is the reason why some women feel they have very sensitive areas in their vagina, the so-called ‘G-spot.’ No additional structure, separate from the clitoral body, that could be regarded as the G-spot has ever been found (O’Connell, 2005). Possibly, also due to these factors, more women than men experience orgasm disorders (11 to 29% in the general population) (Kedde, 2012; Richters et al., 2003), either primarily (complaints present since the start of sexual activity) or secondarily (onset after a period of being orgasmic, mostly as a result of problems with desire or arousal). While the anatomy of the vagina in transgender

women is different from cisgender women (a skin lining instead of mucosa in the vagina and only crura present beneath the clitoris), the clitoris is also the most pleasurable zone for transgender women (Weyers et al., 2010). When interpreting the percentages of orgasmic functioning in transgender women after vaginoplasty surgery, these higher numbers of orgasmic disorder or anorgasmia in cisgender women in the general population should be kept in mind. After all, sexual function does *not* necessarily equate with sexual satisfaction. Some transgender women might be anorgasmic after vaginoplasty surgery, but might find it much more important to have penetrative sex. Other transgender women might be orgasmic after vaginoplasty surgery, but might be very unsatisfied by the (lack of) sexual skills of their partner. Studies have reported an increased sexual satisfaction despite inadequate sexual function (De Cuypere et al., 2005). Finally, we should point out that women who do not climax during intercourse, but do so during other forms of sexual stimulation, are, of course, perfectly normal!

Before discussing the results of orgasmic functioning in transgender men after surgery, we should first discuss the anatomical differences between cisgender and transgender men after metoidioplasty or metaoidioplasty (informally called meto or meta) and/or phalloplasty surgery. As mentioned in other chapters in this book, a metoidioplasty mobilizes the hypertrophic clitoris, creating a micropenis. However, the aesthetic and functional outcomes are often disappointing, as transgender men can rarely void while standing, and penetrative sex is almost always impossible. From the perspective of sexual functioning, this technique has the advantage that clitoral anatomy and function are unaltered. Sensitivity of the clitoris and erectile function are preserved, which is not the case in phalloplasty surgery (Monstrey et al., 2013). Indeed, during phalloplasty (usually with the radial forearm flap as the golden standard, Monstrey et al., 2009), the clitoris is relocated to a more ventral position and buried beneath the base of the new phallus. As the clitoris is buried, the skin and mucosa, where a lot of sensory receptors for sexual sensitivity are situated, need to be removed. Furthermore, one of the two clitoral nerves is transected in order to be connected with the nerves of the phallus to gain sexual sensitivity in the phallus, thus reducing the residual clitoral sensitivity by 50%. This is different from cisgender men, in whom the glans (top of the penis) usually is the most erogenous zone of the penis. After a phalloplasty, transgender men usually obtain orgasm by stimulating the base of the penis and, hence, this buried clitoral tissue. To allow penetrative sex after a phalloplasty, the insertion of an erection prosthesis is necessary (Monstrey et al., 2013).

While the studies on orgasmic function in transgender men are substantially scarcer, the numbers are clearer. Percentages of orgasm capacity in transgender men after phalloplasty are situated around 78% during intercourse, but reach over 90% during masturbation (De Cuypere et al., 2005; Wierckx et al., 2011b). These rates are considerably higher than in transgender women. We must note that, as with transgender women, some studies report on transgender men who were orgasmic before phalloplasty, but lost their orgasmic capacity (Wierckx et al., 2011b). The direction of change before and after treatment is not clear as well (and similar remarks on sexual development in transgender women, as above, are valid here). One group of researchers asked transgender men about changes in the use of their clitoris and vagina during their transition. It is seen that, while the frequency of using the clitoris did not change during transition, there was a tendency to less frequent involvement of the vagina after the start of hormone therapy (Wierckx et al., 2011b). While very little is known on the

specific sexual practices and activities of transgender people, this confirms again that the majority are sexually active before, during and after treatment.

We can, hence, cautiously conclude that there is an increase of orgasmic function after gender confirming surgery, in both transgender women and men.

4. Sexual Pain and Genderconfirming Treatment

Unfortunately, pain during sexual activity can be an issue, both for transgender women having undergone vaginoplasty surgery and for transgender men having undergone phalloplasty surgery with erection prosthesis (Elaut et al., 2015; Sørensen, 1981). In transgender women, the skin lining (instead of mucosa) of the vagina not only provides less moisture (making lubricant use necessary for penetration), but also less elasticity than a mucosal vagina would. Transgender women more often experience deficient lubrication, low arousal and pain, even more than women with dyspareunia in the general population (Weyers et al., 2009). Understandably, this sometimes leads to fear of damaging the vagina (Elaut et al., 2015). To prevent this, several things are of importance. Firstly, after a vaginoplasty, frequent and careful dilation is necessary to maintain the newly created vaginal cavity. While dilation is a medical necessity, and mostly painful during recovery, it should always take place in relaxed circumstances (e.g., never in a hurry and with minimal tension in the pelvic area), making sure that the act of dilation does not chronically become associated with pain and hypertension in the pelvic musculature. Although rare, the prevention of a classic vicious circle of fear and pain is essential to create conditions making a pleasurable sexual development, after recovery, possible. When dilation becomes associated with pain, the pelvic muscles (and sometimes the rest of the body) could contract in anticipation of this pain, creating a smaller vaginal opening, creating more friction and causing more pain and tension, etc. Secondly, open communication with a partner on one's own wishes and the limitations of one's body can be very helpful in negotiating engagement in those sexual practices that allow one to experience pleasure instead of unwanted pain.

Transgender men without an erection prosthesis never experience sexual pain, while, with an erection prosthesis, over half of transgender men report some pain during intercourse (De Cuypere et al., 2005; Wierckx et al., 2011b). While the decision to undergo phalloplasty surgery and, afterwards, proceeding to have an erection prosthesis inserted, is, of course, always a very personal decision and dependent on many factors, it must be mentioned very clearly that erection prostheses can cause a lot of sexual distress. Transgender men (and their partners) need to very carefully balance (sexual) risks versus benefits, and consider the necessity of penetrative sex (usually the main reason for obtaining a prosthesis). While penetrative sex is an important part of our Western cultural 'sexual script,' sex is, or can be, much more. A lot of couples enjoy a very fulfilling sex life, encompassing a wide range of sexual practices, without ever proceeding to penetration.

TRANSGENDER PEOPLE AND SEXUAL ORIENTATION

Gender Identity versus Sexual Orientation

When transgender people come out, the first question that is still often asked is 'does that mean you are gay?' For a lot of people, being transgender and being LGB (lesbian, gay,

bisexual) are very closely interlinked. While the concepts of gender identity (whether you feel male, female, both, neither or otherwise) and sexual orientation (whether the person you are attracted to is male, female, both, neither or otherwise) are two interwoven aspects of our identity, at the same time they capture quite different aspects as well. It should be needless to state that transgender is about gender identity, and sexual orientation about sexuality. Understandably, part of the motivation to start genderconfirming treatment encompasses a desire to engage in sex as a member of the experienced gender, but it should never fully be reduced to this. Sexuality is a part of our identity, without defining us completely.

When consulting a transgender health clinic, transgender people can be mindful of not disclosing their sexual orientation out of fear of being denied the desired treatment. While in contemporary treatment protocols, sexual attraction or orientation only plays a minor role (Nieder et al., 2016; Zucker et al., 2013), this fear among transgender people is, unfortunately, not entirely unfounded. In the early clinical reports of transgender people, sexual orientation was merely mentioned for descriptive reasons (Hirschfeld, 1991). Since it was assumed that individuals desiring genderconfirming treatment would show very similar histories of gender development, both clinicians and researchers assumed and reported transgender people to show an early onset of transgender identity, and to be sexually attracted to members of their assigned gender (Lukianowicz, 1959; Randell, 1959). During the 1960s and 1970s, as genderconfirming treatments became more accessible and widespread, the aspect of sexual orientation received more attention (e.g., Bentler, 1976). This was mainly driven by the attempt to identify the ‘true transsexual people’ as described in psychiatric manuals, in order to select ‘appropriate candidates’ for genderconfirming treatment (Lawrence, 2010) and minimize post-treatment regret. We must not forget that these pioneers in transgender health care were often under severe attack from their peers for offering care, treatment and support to transgender people. As more research on post-treatment outcome became available, it was shown that, especially in assigned males, sexual orientation showed more variance (e.g., Cerwenka et al., 2014b) and was not necessarily associated with negative treatment outcome (Lawrence, 2003). In the last version of the Standards of Care (SOC 7, World Professional Association for Transgender Health, 2011), sexual orientation is no longer mentioned. Considering the potential consequences of becoming part of not one minority group (transgender), but two (LGB), and assessing the need for additional skills in dealing with minority stress, sexual orientation can remain a topic for counselling in transgender health clinics.

Genderconfirming Treatment and ‘Changes’ in Sexual Orientation

In contrast to what is often assumed, sexual orientation is a complex phenomenon encompassing at least three different dimensions: sexual behaviour (having sex with one or more groups of partners), sexual identity (or self-labelling as gay, straight, bisexual, asexual, pansexual or otherwise) and sexual attraction (whom you feel sexually attracted to or have sexual fantasies about) (Laumann et al., 1994). For example: think of an individual publicly engaged in a heterosexual partnership (sexual identity), while at the same time (secretly) engaging in sexual activities with same-gendered individuals (homosexual behaviour); or, an individual clearly naming themselves homosexual (sexual identity), without being sexually active (sexual behaviour); or, an individual engaging (e.g., due to prison or other

circumstances) in homosexual behaviour, without identifying as such or feeling any attraction towards same-gendered individuals. Population surveys have repeatedly confirmed that these three dimensions of sexual orientation do not always coincide (Bakker & Vanwesenbeeck, 2006; Elaut et al., 2013).

Sexual orientation is, according to scholars as well as the public, still assumed to be a ‘relatively *stable* tendency to seek sexual partners of the same gender, other gender, or both genders’ (Diamond, 2001). However, several studies from European and American transgender health clinics report changes in sexual orientation during or after coming out and/or genderconfirming treatment (Auer et al., 2014; De Cuypere et al., 2005; Lawrence, 2005). These researchers report that transgender women, previously attracted to women, more frequently express an attraction towards men after transition. The reported modifications mostly concern a change from being attracted to females towards being attracted to men and women. Transgender men attending transgender health clinics are known to more often maintain a sexual attraction towards women (80 to 90% upon assessment at the clinic). However, more recent (online) surveys outside transgender health clinics mention that about half of transgender men report an attraction to both men and women, and many identify as gay (Meier et al., 2013; Rowniak & Chesla, 2013). Attraction towards cisgender men is not as uncommon in transgender men as previously assumed.

It has become clear that, just as gender is a broad spectrum (if not, a galaxy, see Richards et al., 2016), sexual identity is also not confined to the socially constructed categories of heterosexual/bisexual/homosexual. Whatever the most frequent ‘change’ in sexual orientation after a transition might be, and however frequently it might happen, it is important to look at this change in a broader context. Some cisgender individuals have been known to come out as gay or lesbian after decades of living in a heterosexual partnership. Researchers collecting personal histories of transgender individuals have clearly identified change in sexual orientation as a recurrent theme: the social and medical transition opens up sexual possibilities that had previously been unavailable (Rowniak & Chesla, 2013) and is part of the more broadly developing and emerging felt gender role (Daskalos, 1998). Possibly, transgender people find it difficult to truly live in accordance with their sexual orientation before transitioning. Furthermore, embodying a certain gender also makes others perceive you as belonging to that gender category, which can be an extra hurdle in getting into contact with, or belonging to, a group of people you identify with. For instance, a transgender man attracted to men who has not (yet) taken hormone therapy (and might present with a high voice or other feminine features), could experience difficulty in being accepted by other gay men.

TRANSGENDER PEOPLE AND INTIMATE PARTNER RELATIONSHIPS

So what does the complexity of sexual orientation, combined with a transition, mean for the intimate partner relationships of transgender people? It is shown that a significant number of transgender people have experienced intimate partnerships before their transition (Cerwenka et al., 2014b). Moreover, the number of sexual partners in transgender women was found not to be different to cisgender women (Lawrence, 2005). Transgender people are, hence, also looking for meaningful partnerships, like anyone else. But how easy is it to find a

partner before, during or after transitioning? As previously mentioned, living in accordance with your sexual orientation is not always easy, especially before transition. It is, therefore, not surprising that transgender health clinics in Europe find that, upon first contact, transgender individuals are often in partnerships that do not match their experienced gender identity and/or sexual orientation (for instance, a transgender man that feels attracted to men, but is involved with a male partner that feels attracted to women) (Cerwenka et al., 2014). These researchers found that half of (especially older) transgender women were involved with female partners who felt sexually attracted to men. Having a partner who does not acknowledge or accept your experienced gender might prevent people from moving forward with transition (Alegria, 2010). At the same time, this study also found that nearly one third of (mostly younger) transgender women were living with (mostly male) partners who were attracted to women. This group avoided sexual experiences and reported negative partner-related sexual experiences (Cerwenka et al., 2014b). Despite the complementary partnership, these women might feel sexually distressed by engaging in unwanted sexual activities, possibly to satisfy their partner. For instance, some transgender women, awaiting vaginoplasty surgery, allow anal penetration to feel closer to their partner. These and other sexual activities that do not correspond to the 'typical' sexual behaviour of a certain gender, can increase feelings of gender dysphoria. A different picture emerged in this study for transgender men: upon entering a transgender health clinic, the majority were in a relationship that fitted their gender identity and sexual orientation. This group predominantly reported to have female partners attracted to men (Cerwenka et al., 2014b).

LEARNING POINTS

- Our sexual identity defines how we desire to shape our sexual experiences; our gender identity defines how masculine or feminine we feel. Thus, being transgender does not predict your LGB status.
- Both hormone therapy and genderconfirming surgery have a major impact on sexual function.
- After treatment, sexual desire decreases in most transgender women, while it appears to increase in transgender men.
- Sexual arousal is often hampered after treatment: transgender women always need to use lubricants during penetration; transgender men, even with an erection prosthesis, cannot obtain an involuntary erection with the current surgical techniques.
- In both transgender women and men, orgasmic function increases after treatment.
- Despite the limitations of existing treatment, a satisfying sexual life after genderconfirming treatment is often possible.

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Chapter 11

FERTILITY OPTIONS IN TRANSGENDER PEOPLE

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OVERVIEW

Hormonal and surgical treatments for transgender people have a devastating effect on the possibility of these individuals being able to reproduce. Additionally, transgender people tend to start sex reassignment treatment at a young age, when reproductive wishes are not yet clearly defined or fulfilled. Whereas genital reconstructive surgery definitely results in sterility, hormone therapy, on the other hand, also has an important, but partially reversible, impact on fertility. The current fertility preservation options for transgender men are: embryo cryopreservation, oocyte cryopreservation and ovarian tissue cryopreservation. For transgender women: sperm cryopreservation, surgical sperm extraction and testicular tissue cryopreservation are possible.

INTRODUCTION

Gender confirming treatment options for transgender people comprise both hormone therapy and/or surgical interventions (Coleman et al., 2012). Unfortunately, both these options have a negative effect on fertility (Coleman et al., 2012; T'Sjoen, Van Caenegem, & Wierckx, 2013). Health care professionals should address the consequences for future fertility with their patients before treatments are started. Although there are only few studies that have investigated the desire of transgender people to have children, they all conclude that approximately half of transgender women and half of transgender men wish to have children (De Sutter, Kira, Verschoor, Hotimsky, 2003; Wierckx, Stuyver, et al., 2012; Wierckx, Van Caenegem, et al., 2012). The relevance of this topic is also reflected in the fact that transgender people with children score significantly higher on self-perceived positive mental health status and vitality, in quality of life surveys, than transgender people without children (Wierckx, Van Caenegem, et al., 2012). Additionally, in transgender women, parenting has

been identified as a protective factor for suicide (Hamada et al., 2014). A small majority of transgender men and transgender women would actually have their gametes frozen, or would have seriously considered doing it, if the technique had been available (Wierckx, Van Caenegem, et al., 2012). Lesbian and bisexual transgender women, in particular, were interested in using their own frozen sperm to fulfil a future desire for children (Wierckx, Van Caenegem, et al., 2012). Regardless of their personal desire, the majority of transgender people clearly expressed the opinion that fertility preservation techniques should be discussed and offered (De Sutter et al., 2003). On the other hand, it is striking that some transgender people, in order not to postpone their transition process, are willing to sacrifice their fertility. (De Sutter et al., 2003). Most transgender people are in favour of transitioning without delay and, hence, fertility preservation appears not important enough to postpone transition (Wierckx, Stuyver, et al., 2012).

The seventh version of the World Professional Association for Transgender Health (WPATH) Standards of Care recommends discussing fertility options with patients prior to any treatment or medical intervention, especially before genital reconstructive surgery (Coleman et al., 2012). The impact of each treatment on fertility, as well as the fertility preservation option available that will allow the possibility of having future genetically related children, should be addressed. This chapter provides the most recent insights on the effects of therapy on fertility, fertility preservation options, success rates, future use of stored gametes, and transgender parenting. It is of interest for all healthcare professionals working with transgender people and could be used as a tool in order to correctly inform their patients about the possible fertility preservation options available. It is of note that certain treatments and possibilities cited below might not be possible in every country, due to national legislation.

During this chapter several terms will be used that have not been described elsewhere, as they are specific to this chapter. We will try to avoid using complex terms, but this may not always be possible. We have listed the terms in alphabetical order so they can easily be found when reading this chapter:

- **Asthenozoospermia:** The reduction of sperm motility.
- **Azoospermia:** The absence of sperm in the semen.
- **Blastocyst:** An embryo which has developed to the point of having 2 different cell components and a fluid cavity. Human embryos from in vitro fertilization in culture in an IVF laboratory, or developing naturally in the body, usually reach blastocyst stage by day 5 after fertilization.
- **Cryopreservation:** The process where cells, or tissues, or any other biological structures, are preserved by cooling to very low temperatures. This is the same as “freezing”, which is the term we will try to use instead.
- **In vitro:** A technique performed or taking place in a test tube, culture dish, or elsewhere outside a living organism.
- **In vivo:** A technique performed or taking place in a living organism.
- **Oligozoospermia:** This is a male fertility issue defined as a low sperm concentration in the ejaculate. Low sperm concentration or “sperm count” is the number of sperm in a specific amount of ejaculate (typically millilitres or mL).

- **Oocyte:** An immature ovum or egg cell which is produced in the ovary during the female gametogenesis. It carries the genetic material.
- **Oocyte vitrification:** Eggs (oocytes) are frozen using either a controlled-rate, slow-cooling method or a newer, flash-freezing process known as vitrification. Vitrification is much faster but requires higher concentrations of cryoprotectants to be added. The result of vitrification is a solid, glass-like cell, free of ice crystals.
- **Oophorectomy:** The removal of the ovaries.
- **Ovarian follicles:** Ovarian follicles are the basic units of female reproductive biology, each of which is composed of roughly spherical aggregations of cells found in the ovary. They contain a single oocyte (immature ovum or egg). They secrete hormones that affect the menstrual cycle. At puberty, there are approximately 400,000 follicles in women, each with the potential to release an egg cell for fertilisation. These egg cells are developed once every menstrual cycle.
- **Primordial follicle:** An ovarian follicle in which the primordial oocyte (egg) is surrounded by a single layer of flattened follicular cells. It is the most immature follicle stage.
- **Teratozoospermia:** Also known as teratospermia, is a semen alteration in which there is a large number of spermatozoa with abnormal morphology.

THE EFFECT OF HORMONE TREATMENT AND GENDER CONFIRMING SURGERY ON FERTILITY

Genital Reconstructive Surgery in Transgender Women

Penectomy (removal of the penis) and orchidectomy (removal of the testicles) in transgender women leads to irreversible sterility.

Cross-Sex Hormone Treatment in Transgender Women

Clinically, prolonged oestrogen treatment results in the reduction of the testicular volume (Payer, Meyer, & Walker, 1979). Additionally, oestrogens reduce the sperm motility (how well the sperm moves) and concentration (Payer et al., 1979). The higher the dose of oestrogens, the higher is the effect (Payer et al., 1979). Hamada et al. (2014) clearly demonstrated a poor semen quality in transgender women following feminizing therapy. Their results show a high incidence of reduced sperm concentration, reduced sperm motility and abnormality in the form of the sperm, related to cross-sex hormone treatment in transgender women (Hamada et al., 2014; Lubbert, Leo-Rossberg, & Hammerstein, 1992). This reduction in sperm production eventually leads to a lack of sperm in the semen (De Sutter, 2001). Also, the impact depends on the type of cross-sex hormone therapy (Schneider et al., 2015) and may be reversible upon cessation of oestrogen therapy (Schulze, 1988). If semen samples of such poor quality are to be used, assisted reproduction techniques, such as

in vitro fertilization (IVF) or intracytoplasmic sperm injection (ICSI) (when the sperm is directly injected into an egg cell) are needed (Ettner, Monstrey, & Coleman, 2016).

Genital Reconstructive Surgery in Transgender Men

Hysterectomy with bilateral removal of the ovaries leads to irreversible sterility (De Sutter, 2001; Wierckx, Van Caenegem, et al., 2012).

Cross-Sex Hormone Treatment in Transgender Men

Hormonal therapy for transgender men will, in most cases, lead to a reversible amenorrhea (cessation of periods or menses), typically within 6 months. This cessation of menses usually occurs due to: 1) the suppression of the ovulation because of testosterone intake and, 2) an atrophy of the endometrial tissue (the innermost membrane of the uterus) (Perrone et al., 2009). Ovarian follicles are not depleted and, if pieces of ovarian tissue derived from transgender man are transplanted in a mouse, the follicles are capable of maturing (Van Den Broecke, Van Der Elst, Liu, Hovatta, & Dhont, 2001). This means that the follicles in the ovarian tissue of transgender men are capable of maturing even if the tissue has been subjected to high levels of testosterone. However, increased testosterone levels may adversely affect follicle growth, mostly at the more matured follicle stages (Caanen et al., 2015; De Roo et al., 2014; Pache et al., 1991). On the other hand, one must realize that hormonal interventions for transitioning do not exclude possible pregnancy in transgender men (De Roo et al., 2014; Light, Obedin-Maliver, Sevelius, & Kerns, 2014; T'Sjoen et al., 2013; Veale et al., 2016). This implies that the treatment with testosterone for transgender men is not an adequate means of birth control. Testosterone may even have a teratogen effects on the foetus, which means that testosterone can cause a malformation of the foetus. Therefore, transgender men should avoid pregnancy while on testosterone therapy. In cases of non-surgery, contraception should be discussed. Evidence regarding the choice of the correct contraceptive is currently lacking. We suggest progesterone-only medication, a progesterone-releasing intra-uterine device or barrier methods of birth control, in order to avoid the use of oestrogen treatment.

Current Fertility Preservation Options for Transgender Men

Current fertility preservation options include the freezing of embryos, egg cells or ovarian tissue. The theoretical options are presented in Table 1, including a short description of every technique, considerations in favour of and against the technique, and the potential future use in the case of a male or a female partner. These options are based on the known fertility preservation options for patients undergoing treatments such as chemotherapy, which affect the gonads, transposed to the specific needs of transgender patients. It is preferable to bank gametes before commencing cross-sex hormone treatment. For transgender men and transgender women already using cross-sex hormone treatment, an interruption of hormone

treatment is anecdotally recommended for at least 3 months, to restore possible therapy-induced effects. The testosterone washout period prior to pregnancy is unknown.

Table 1. Fertility preservation options in transgender men prior to a hysterectomy and bilateral oophorectomy procedure

Technique	Description	Considerations	Future use
Embryo cryopreservation	Controlled ovarian stimulation for oocyte retrieval and fertilization to obtain embryos for cryopreservation (to freeze)	<ul style="list-style-type: none"> - Established method - Controlled ovarian stimulation - Vaginal procedure - Post pubertal - Partner or donor sperm 	<p><i>Male partner</i> Use of partner's sperm prior to cryopreservation, need of a surrogate mother</p> <p><i>Female partner</i> Fertilization by donor sperm prior to cryopreservation, implantation into the partner's uterus</p>
Oocyte cryopreservation	Controlled ovarian stimulation to obtain oocytes for cryopreservation	<ul style="list-style-type: none"> - Innovative method - Controlled ovarian stimulation - Vaginal procedure - Post pubertal - No partner required 	<p><i>Male partner</i> Use of partner's sperm, need of a recipient uterus (surrogate mother)</p> <p><i>Female partner</i> Fertilization by donor sperm, implantation into the partner's uterus</p>
Ovarian tissue cryopreservation	Surgical excision of ovarian tissue for cryopreservation	<ul style="list-style-type: none"> - Experimental - Prepubertal or post pubertal - No controlled ovarian stimulation - Possible at moment of genital reconstructive surgery - No partner required 	<p><i>Male partner</i> <i>In vitro</i> maturation and use of partner's sperm, need of a recipient uterus (surrogate mother) (not possible at this stage)</p> <p><i>Female partner</i> <i>In vitro</i> maturation, fertilization by donor sperm, implantation into the partner's uterus (not possible at this stage)</p>

EMBRYO CRYOPRESERVATION

Embryo cryopreservation is the process of preserving an embryo at sub-zero temperatures, generally at an embryogenesis stage corresponding to pre-implantation, that is, from fertilisation to the blastocyst stage. The technique consists of hormonal stimulation and aspiration of the egg cell for IVF/ ICSI techniques, to create embryos that are subsequently frozen for future embryo transfer (Ettner et al., 2016; Wallace, Blough, & Kondapalli, 2014). This is an appropriate option for post-pubertal transgender men with a male partner and offers the possibility of a genetically related child. However, if desired, a sperm donor can also be used to create embryos (Wallace et al., 2014). This fertility preservation method requires the ovaries to be stimulated using female hormones (Wallace et al., 2014). Additionally, frequent vaginal ultrasound monitoring is needed during the ovarian stimulation phase and a transvaginal surgical procedure is performed for the aspiration of the egg cell (De Sutter, 2001; Wallace et al., 2014). This can be a physical and psychological burden for many transgender men, thereby limiting their future reproductive options (Wierckx, Van Caenegem, et al., 2012). Although technically possible, genital examinations in transgender men may need to be postponed until a trusted doctor-patient relationship is established (Steever, 2014). Nowadays, embryo freezing is a routine procedure in the field of assisted reproduction. In the case of an embryo transfer, a recipient uterus (surrogate mother) is required, especially when the uterus has been removed upon genital reconstructive surgery in transgender men (De Sutter, 2001; Ettner et al., 2016). In the case of a female partner, partner donation – where an oocyte or egg cell of the transgender man is inseminated with donor sperm and subsequently transferred to the female partner – is a possibility.

Oocyte Cryopreservation

Human oocyte cryopreservation (or egg freezing) is a process in which a woman's eggs (oocytes) are extracted, frozen and stored. At a later stage the eggs can be thawed, fertilized, and transferred to the uterus as embryos. This technique also includes hormonal stimulation and the retrieval of the oocyte, or egg cell, for oocyte freezing (Wallace et al., 2014). Therefore, the same considerations as for the previous technique (embryo cryopreservation) have to be taken into account. The difference with the previous technique is that, in this technique, the egg cell is frozen instead of the embryo. Cryopreservation of oocytes does not require fertilization. Therefore, there is no need for a partner or for the use of donor sperm at this stage (before it gets frozen). When (and if) the frozen egg cells are used in the future, partner sperm or donor sperm and a recipient uterus, which can be the female partner, or a surrogate if a male partner, are required (De Sutter, 2001).

Ovarian Tissue Cryopreservation

Ovarian tissue cryopreservation means freezing of the ovarian tissue in order to preserve fertility. This technique requires the removal and subsequent freezing of tissue from the ovary (Wallace et al., 2014). The technique requires a surgical procedure but does not include an

ovarian stimulation using hormones, as per previous techniques. Since cross-sex hormone treatment does not deplete the ovary, the removal of the tissue can be performed at the time of genital reconstructive surgery (Van Den Broecke et al., 2001). At the moment this technique is a promising, but experimental, procedure (Wallace et al., 2014).

When (and if) the frozen ovarian tissue is thawed for use, it can, theoretically, either be transplanted or the follicles can be matured in the laboratory. The transplantation of the frozen ovarian tissue can cause unwanted side effects by restoring female hormone activity. It makes natural conception theoretically possible in cases where the uterus was not removed. This occurs if this transplanted ovarian tissue is stimulated in order to obtain mature egg cells for IVF/ICSI techniques. It may be possible, in the future, to mature the follicles from the tissue in the laboratory without transplantation. This technique, called *in vitro* maturation of follicles, would prevent transgender men from experiencing the recovery of female hormone activity after the transplantation of the tissue. However, *in vitro* maturation in the laboratory, starting from these immature follicles, is not yet possible (Dewailly et al., 2014; Ettner et al., 2016; Wierckx, Van Caenegem, et al., 2012). This technique is, therefore, highly experimental and, at the moment, only available in basic scientific settings, such as research laboratories. As in oocyte cryopreservation, once a mature oocyte is obtained, the use of a partner's sperm or donor sperm and a recipient uterus, upon thawing of the oocytes for future use (female partner or surrogate mother), could enable fertility treatment.

Current Fertility Preservation Options for Transgender Women

The fertility preservation options for transgender women include the freezing of sperm (sperm cryopreservation) collected through ejaculation or direct testicular extraction and the freezing of immature testicular tissue. An overview of fertility preservation options in transgender women is provided in Table 2.

Sperm Cryopreservation

Human sperm cryopreservation is a procedure to preserve sperm cells through freezing. For human sperm, the longest reported successful storage is 40 years (Szell et al., 2013). This procedure is the simplest and most reliable method of male fertility preservation (Wallace et al., 2014). The sperm is obtained through masturbation or vibratory stimulation. Transgender women may find it difficult to masturbate in order to produce a semen sample for preservation. Having semen samples stored reminds transgender women of their (male) past and may make some transgender women not feel themselves to be a complete woman (De Sutter et al., 2003; Wierckx, Stuyver, et al., 2012). Depending on the sperm quality, the freezing of the sperm cell or spermatozoa can be used for future intrauterine insemination, or to perform IVF/ICSI in the case of a female partner (De Sutter, 2001). The need for IVF/ICSI, however, creates the necessity to start controlled ovarian stimulation in the female partner, followed by the aspiration of the egg cell. The embryo obtained can subsequently be transferred into the partner's uterus. In the case of a male partner, a donor oocyte and a surrogate mother are both necessary.

Table 2. Fertility preservation options in transgender women

Technique	Description	Considerations	Future use
Sperm cryopreservation	Cryopreservation of ejaculated sperm through masturbation or vibratory stimulation	<ul style="list-style-type: none"> - Established technique - Masturbation - Post pubertal 	<p><i>Male partner</i> Need of a donor oocyte and surrogate mother</p> <p><i>Female partner</i> Intra-uterine insemination or IVF/ICSI, depending on sperm quality, followed by embryo transfer in partner</p>
Surgical sperm extraction	Percutaneous aspiration of sperm from testis or epididymis	<ul style="list-style-type: none"> - Established technique - No masturbation - Surgical procedure - Post pubertal 	<p><i>Male partner</i> Need of a donor oocyte and surrogate mother</p> <p><i>Female partner</i> IVF/ICSI treatment followed by embryo transfer in partner</p>
Immature testicular tissue cryopreservation	Surgical biopsy of testicular tissue	<ul style="list-style-type: none"> - Experimental - Prepubertal or post pubertal - Possible at moment of genital reconstructive surgery 	<p><i>Male partner</i> <i>In vitro</i> maturation and need of a donor oocyte and surrogate mother (not possible at this stage)</p> <p><i>Female partner</i> <i>In vitro</i> maturation and IVF/ICSI followed by embryo transfer in partner (not possible at this stage)</p>

Surgical Sperm Extraction

This technique requires a needle-puncture of the testes in order to extract or aspirate the sperm (Wallace et al., 2014). This is an established method in daily IVF practice. Although presented as a solution for transgender women for whom masturbation is a burden, one must not forget that this is a surgical procedure (Wallace et al., 2014). The obtained spermatozoa can be used for future IVF or ICSI procedures in the case of a female partner. Again, in the case of a male partner, an egg cell donor and surrogate mother are both necessary in order to fulfil their wish to have a child (Ettner et al., 2016).

TESTICULAR TISSUE CRYOPRESERVATION

Testicular tissue cryopreservation means the freezing of the testicular tissue. For this technique a surgical biopsy of testicular tissue from pre- or post-pubertal transgender women is performed (Wallace et al., 2014). This option overcomes the need for masturbation and is possible in pre-pubertal boys (Wallace et al., 2014). It is a surgical procedure that can be combined with genital reconstructive surgery. Compared to the other two options, this is an experimental method. For future use, an *in vitro* maturation procedure, which is currently not clinically possible, or transplantation is necessary, followed by assisted reproduction techniques. Transplantation can, however, restore the male endocrine environment, which clearly is an undesired effect for transgender women.

FUTURE FERTILITY PRERSERVATION OPTIONS FOR TRANSGENDER PATIENTS

Current research focuses on optimising the *in vitro* maturation of immature egg cells and spermatogonial stem cells. An optimised culture model would allow the use of the currently banked ovarian or testicular tissue without the need for transplantation. This would solve the side effect of having the unwanted hormones due to the transplanted tissue.

During ovarian tissue processing for cryopreservation in transgender men, egg cells, so-called cumulus-enclosed egg cells, are sometimes collected from the manipulation medium. These immature egg cells originate, most probably, from antral follicles punctured through manipulation of the tissue during the cryopreservation procedure. The antral follicle stage is a more advanced stage in follicle maturation. Further *in vitro* maturation of cumulus-enclosed egg cells, collected during ovarian tissue processing, may be possible in the future. In combination with freezing of the ovarian tissue, the freezing of *in vitro* matured egg cells might further broaden the reproductive possibilities for transgender men. However, this possibility is highly experimental and only occurs in basic research settings, as the true developmental capacity of the *in vitro* matured egg cells is currently unknown.

Apart from a testicular biopsy in transgender women to obtain spermatogonial stem cells, research to obtain artificial gametes through stem cells is ongoing (Duggal, Heindryckx, Deroo, & De Sutter, 2014; Ettner et al., 2016). This would be a possibility for those patients who cannot or have not stored their own gametes and currently need oocyte or sperm donation to fulfil their future, genetically related, desire to have children (T'Sjoen et al., 2013).

TRANSGENDER GESTATION

In the USA, unlike in many European countries, hysterectomy with oophorectomy is not necessary for legal gender reassignment (T'Sjoen et al., 2013). Also, in Sweden, the requirement of sterilization for gender reassignment legalization was ruled unconstitutional in court in 2013. These changes clearly affect clinical practice (Rodriguez-Wallberg, Dhejne, Stefenson, Degerblad, & Olofsson, 2014). In cases where transgender men decide to retain

their ovaries and uterus, they may regain fertility after discontinuing androgen therapy. It is a fact that transgender men are becoming pregnant and are having babies, regardless of prior testosterone use (Light et al., 2014). This also emphasizes the need for specialized obstetric care, addressing the specific needs of pregnant transgender men.

In transgender women, being pregnant and giving birth is still not possible. The Swedish research unit of Brännström and his colleagues conducted a series of uterus transplants and reported a first live birth in 2014 (Brännström et al., 2015). This opens the possibility of assisted gestation for transgender women (Murphy, 2014). However, there are important medical concerns regarding uterus transplantation if introduced for transgender people (Hamada et al., 2014; T'Sjoen et al., 2013). A difficult surgical procedure would be needed in order to change the anatomy of the male pelvis with the intention of performing a successful uterus transplantation. Moreover, immunosuppressive therapy would be necessary and is possibly not advisable during a pregnancy (T'Sjoen et al., 2013), but that, in itself, would not be any different from a uterus transplantation in a cisgender female patient.

TRANSGENDER PARENTING AND CHILDREN

The above mentioned options clearly show the opportunities (and limits) for transgender patients with a present or future genetically related wish for children. All these possibilities, however, are strictly regulated by national legislation. Apart from legislation, some healthcare professionals still need to be convinced about the necessity and the ethical acceptability of preserving fertility in this patient group (De Sutter, 2001). The underlying question is whether transgender parenting has a negative influence on the gender identity and sexual orientation of a child (T'Sjoen et al., 2013; White & Ettner, 2004). Few studies have addressed this question and conclusive evidence is scarce. Although the results from these studies are reassuring, long-term follow-up studies are undoubtedly needed. None of the studies published so far, showed that children suffer to such an extent that would warrant a prohibition of transgender parenting (Murphy, 2012). Using being transgender as a reason to interrupt contact between the transgender parent and his or her children, as is the case in some countries, is documented to be harmful for the children (Green, 1978; T'Sjoen et al., 2013). It is, however, shown that a child having a transgender parent may experience more transient and mild harassment than those who do not have a transgender parent (Green, 1978; T'Sjoen et al., 2013).

Children who were younger at the time of their parent's transitioning, showed better adaptation and maintained healthier relationships with both the transitioning and the other parent, in a study by White and Ettner (2007). A less conflicted relationship between child and parents is also predicted by a positive relationship between the two parents (White & Ettner, 2004; White & Ettner, 2007). In cases where transitioning of the transgender parent took place before the birth of a child, it is important to disclose the transgender identity of the parent early in childhood, rather than later in the life of the child. The possibility that specific circumstances concerning the birth of the child are disclosed by someone other than the parents, should be avoided, as this can be tremendously traumatic for the child (Chiland, Clouet, Golse, Guinot, & Wolf, 2013). For more information, see Chapter 7, *Transgender Families* by Motmans, Dierckx, & Mortelmans).

DISCUSSION AND CONCLUSION

Fertility and fertility preservation are important topics to discuss before planning gender confirming treatment. Patients should be clearly informed before starting cross-sex hormone treatment or genital reconstructive surgery. The first information on fertility preservation should be given by healthcare professionals at transgender health services. Following this, patients should be referred to a specialized fertility centre, where their available options can be discussed in more detail. Information on success rates of each technique is especially highly patient-specific. In the case of sperm cryopreservation or surgical sperm extraction, success rates are similar to preservation in cisgender patients. However, reproductive techniques, as well as pregnancy results, depend on the age and fertility-related medical history of the partner. In the case of embryo or oocyte cryopreservation, the age of transgender men at the moment of cryopreservation is very important. All the other aforementioned techniques are still experimental, therefore, referring a patient to a specialized fertility centre in order to have correct and balanced information is a necessity.

The current available options for fertility preservation are very promising. One must, however, realize that the banking of gametes cannot guarantee future treatment. If a transgender person has a wish for a genetically related child (individually or as a couple) pre- or post-transitioning, they should undergo the screening procedure according to the protocol of the centre for assisted reproduction. Furthermore, not all theoretical reproductive options are possible at this time and not all forms of medically assisted reproduction are available in every country. Additionally, medically assisted reproduction, although considered to be safe, is not without health risks and is often expensive.

The use of the cryopreserved gametes will, therefore, depend on their quality, the success rate of the technique, and choice of partner, as well as a specialized fertility centre's policy and national legislation. Fertility in transgender patients also raises the need for appropriate and adapted care before conception, during pregnancy, and after giving birth.

We conclude that transgender patients should be counselled on reproductive issues by professionals, prior to initiating gender confirming treatment, which adversely affects fertility, in order to have a clear overview of the effects of treatment, the preservation possibilities, and what to expect from it. We advise referring transgender people to specialized centres for assisted reproduction to discuss fertility preserving possibilities. Even though a patient does not have a clear view on his or her future wish for children it is very important that patients have access to clear and detailed information, so that a well informed choice can be made.

LEARNING POINTS

- Health care professionals should address the consequences for future fertility with their patients before treatments have started.
- Genital reconstructive surgery results in sterility.
- Hormone therapy has an important, but partially reversible, impact on fertility.

- The current fertility preservation options for transgender men are embryo cryopreservation (the freezing of), oocyte cryopreservation and ovarian tissue cryopreservation.
- The current fertility preservation options for transgender women are sperm cryopreservation, surgical sperm extraction and testicular tissue cryopreservation.

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Chapter 12

GENDERQUEER AND NON-BINARY GENDERS

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OVERVIEW

Non-binary or genderqueer people are those people who do not identify as male or female. They may have a fluid or a fixed notion of the degree of masculinity or femininity they have; or eschew the notion of a spectrum of gender altogether. The evidence regarding mental health is mixed; but there is certainly evidence that non-binary people are subject to societal opprobrium in many high GDP Western countries, which can lead to anxiety and depression. Accordingly, good clinical assistance should focus not only on the individual, but also on societal matters. Some non-binary people may seek physical interventions and there are limitations as to what may be achieved (cf. Richards, Bouman & Barker, 2017), however for people who have carefully considered the matter these are very effective interventions. In short, non-binary people should be treated with respect and without undue attention being paid to the gender status. Where there are gender-specific considerations care should be given to ensure they are specific to individual need.

INTRODUCTION

Non-binary or genderqueer people are those people who are not content to remain the gender they were assigned at birth (usually after a cursory examination of the genitals), and also define outside of the gender binary of male or female (cf. Richards, Bouman & Barker, 2017). This is not to say that they necessarily have a physical intersex condition or Diversity/Disorder of Sexual Development, although they may do so as well; rather being Genderqueer or Non-binary refers to core gender identity. Some people who so identify may see themselves as a fixed point on a notional gender spectrum between female and male poles; Some may have a range between those poles (gender fluid people); Some may have no gender (Neutrois); And some may take issue with the notion of gender at all (Genderfuck or

queer). Not uncommonly people within these groups prefer Mx rather than specifically gendered pronouns such as Mr or Mrs and prefer the use of They, Them Theirs to refer to them – rather than He, His, Him or She, Her, Hers.

Many non-binary and genderqueer people quite reasonably also take issue with the notion of gender being a spectrum between male and female poles as this linear spectrum implies that the more male one is then the less female and vice-versa – the notion of ‘opposite’ genders. However, a moment’s thought shows this to be fallacious: If gentleness is a ‘feminine’ trait, then what about the father and his new-born baby? If aggression is ‘masculine’ what about a mother protecting her children? It’s extremely hard to link any specific trait to a gender as one can always think of counter-examples. Similarly, with body parts we might attribute long hair as being feminine, however male WWF wrestlers and heavy metal band member often use long hair as a signifier of masculinity. We can extend this to secondary sexual characteristics as many cisgender¹ men have gynecomastia, but are content in their masculinity; some trans women are happy to consider their ‘penis’ to be an enlarged clitoris (developing as it does from the common source of the urogenital ridge); some trans men are happy to regard their ‘vagina’ as a manhole, given they are men and it is therefore masculine. Meaning does not inhere in body parts, rather culture and individuals impart meaning to them (Butler, 1999). Thus, the notion of a linear gender spectrum, let alone two separate or contiguous poles becomes suspect.

Many cultures also recognise more than one gender, for example the *hijra* in south Asia are advocating for legal recognition of a third gender position. Traditionally, hijra are people who were assigned male at birth who are devotees of the Bahuchara Mata and may officiate at a range of Hindu ceremonies who may identify as [transsexual] women, as men, or as third gender. Similarly, the *two-spirit* people indigenous to America are people assigned male at birth who take on aspects and roles of femininity; or people assigned female at birth who take on aspects and roles of masculinity; but need not take on all of the aspects or roles of the ‘other’ sex. There are various terms used by first nation peoples for two-spirit people such as *hwame* by the Mohave; *ilhamana* by the Zuni; *wínkte* by the Lakota; and *nádleehé* by the Navajo. These terms are not analogous and indeed *ilhamana* defies direct translation into English - a point worth considering for readers based in a two-sex/two-gender cultural system. The term ‘Two-spirit’ itself is not universally accepted because it suggests a spiritual/cultural system which does not accord with all first nation understandings and indeed is only used as a loose umbrella term here. In addition to the Hijra and the two-spirit people, the Samoan *fa’afāfine* (lit: the way of a woman) have a more complex view of gender which is at odds with the strict Western notion of male and female. In essence, the *fa’afāfine* are people assigned male at birth who foreground traditionally feminine behaviours in certain instances and in service of their community. Within Polynesia there are other similar groups such as the *māhū* from Tahiti and Hawaii who are assigned male at birth, and who have feminine gender identities.

Sadly, many of the terms above have been adapted into terms of [slang] abuse. This may be because cultures which have previously embraced gender diversity have grown less tolerant when people were evangelised during the historic wars of conquest; and more recently with the spread of other, less diverse, understandings through cultural colonialism. This marginalisation has led some people to seek legal recognition of their gender forms - as

¹ A cisgender person is a person who is content to remain the gender they were assigned at birth.

with the hijra above - and others to adopt the [medical] discourse of [binary] transsexualism; instead of the traditional understandings touched on above. Hopefully the inclusion of non-binary gender forms in western medicine more recently will assist with this a little; although this should not supplant traditional notions of gender which are equally, or more, valid.

When people are marginalised there can be increasing isolation as communities no longer have the place which once existed for gender and sexually diverse people - which in turn can lead to minority stress, homelessness and work within underground economies. However, the rise of the identities of trans*, transgender, non-binary and genderqueer within some areas, while supplanting traditional understandings, can offer a new community or a sense of identity to people who would otherwise be marginalised.

POPULATION AND RECOGNITION

In general, the term *non-binary* or *genderqueer* refers to a person's core identity, rather than physicality at birth; but, as stated above, it does not exclude people who are intersex or have a Diversity/Disorder of Sexual Development who also identify as *non-binary* or *genderqueer*. Whatever their birth physicality, as there are non-binary people who identify as a single fixed gender position other than male or female; there are those who have a fluid gender; there are those who have no gender; and there are those who disagree with the very idea of gender - it follows therefore (and from the fact that most research still only offers binary choices for gender) that the proportion of the general population who are non-binary is extremely difficult to determine. For example, Titman (2014) reported that at least 0.4% of the United Kingdom (UK) population defines as non-binary when given a three-way choice in terms of female, male, or another description. Of people who identify as trans, between a quarter to a third identify in some way outside the binary.

In 2014 the *METRO Youth Chances* study found that around 5% of young LGBT people identify as something other than male or female – indeed it appears that identifying as something other than male or female may be becoming more common among younger populations. This is not to say that non-binary identities are a new thing as they are not – rather that, as with same-sex attraction, it is the young who are the vanguard for social change. In the United States of America (US), the *Injustice at Every Turn* research, which included online responses from over 6,000 transgender people, found that 13% of respondents chose the option “a gender not listed here” and 860 of those respondents wrote in their own gender identity terms (Harrison, Grant and Herman, 2012).

Indeed, this increase in the numbers of non-binary people claiming their identity is starting to be recognised by legal systems with several countries now allowing gender recognition outside of the gender binary; and the use of Mx instead of gendered pronouns such as Mr or Mrs on official documents. Further, the American Psychiatric Association includes non-binary genders within its diagnosis of *Gender Dysphoria* in the Diagnostic and Statistical Manual 5th Edition (APA, 2013a) which specifically includes non-binary genders and recognises that they are not a mental disorder (APA, 2013b). The APA is clear that the diagnosis is included simply as a means for people to access physical treatments (see below) for their dysphoria - not as an indication that having a gender other than that assigned at birth is psychopathological.

MENTAL HEALTH

What then is the mental health status of people with non-binary gender identities? Unfortunately, the literature is, as yet, rather unclear. There is some suggestion that non-binary people have poorer mental health than binary-identified trans people (Harrison, Grant & Herman, 2012), however some literature conversely suggests that the binary trans population has poorer mental health than the non-binary population (Warren, Smalley & Barefoot, 2016). In both cases, however, mental health is poorer than in the cisgender population (McNeil et al., 2012).

This is a curious finding as we know from Bem's Studies (among others) that psychological androgyny (scoring highly on male typical *and* female typical traits in a cisgender population) leads to *better* mental health (e.g., Bem, 1995; Bem and Lenney, 1976) due to having a higher degree of flexibility and fewer limitations. The explanation for these poorer mental health outcomes therefore is to be found, not the gender of the person, but rather societal opprobrium directed at that person due to their being in a minority group. This process is called *minority or marginalisation stress* and has been found in other marginalised groups, including people who identify as lesbian, gay, or bisexual; and those from diverse religious or ethnic backgrounds (Meyer, 1995, 2003).

Two things follow from this. First, that it is absurd to suggest that the diversity itself is to blame for poor mental health when it is societal opprobrium which is the cause; And secondly, that when an individual subject to such stress has this stress reduced they will therefore likely have better mental health. This reduction of stress may be through societal pressures easing; through finding better coping mechanisms; through physical changes which increase individual confidence; through finding community support; or through a combination of such factors. We would expect that under circumstances where these stressors have been removed that people would do better in terms of their mental health - and indeed we know this is precisely what happens in the binary trans population - whose levels of mental health difficulty then come in line with population norms (Dhejne et al., 2016; Robles et al., 2016) and it would be reasonable to assume the same would be the case with non-binary people also.

We might assume therefore that the benefits of psychological androgyny can be outweighed [negatively] by significant societal opprobrium and so lead to minority/marginalisation stress, which in turn can be mitigated to leave non-binary people in a potentially rather better psychological position. Note, however, that psychological androgyny is a *positive* trait - people are both 'male' and 'female' *a lot* as it were (and so make a mockery of these categories being discreet). They are able to be both caring and assertive, for example. What is less clear is how people who score low on both categories fare - people who are neither caring nor assertive, for example. My clinical experience of this group is that they tend to have rather poor mental health and are sometimes engaged in a 'stripping away' of themselves - wanting to lose body parts rather than create them. This is a subtle point, but an important one. Some non-binary people want to have a flat chest as that best accords with their body image and sense of self - surgery in this case is an act of creation, albeit that it may involve the loss of breast tissue (Imagine the creation of a beautiful landscape by removing the litter and burnt-out cars - creation by removal). Conversely, some people simply wish to eliminate their chest in an act closer to destruction - the end result is the same, but the

motivation is quite different. It is this latter group which tends to have poor mental health, perhaps because they struggle to have a sense of them selves *as* a self. In this case clinicians need to be extremely cautious about facilitating surgeries as they may further this groups desire to strip themselves away. Of course this must not be at the expense of those people who wish to have surgery which removes tissue in furtherance of their aim of being a whole, comfortable person.

CLINICAL WORK

Some of the people referred to above who are endeavouring to negate themselves may benefit from clinical assistance to explore their sense of identity and to determine how to move foreword. The vast majority of non-binary people, however, will not require the assistance of a mental health professional as, as we have seen, being non-binary is not psychopathological. Where people do seek assistance it is likely to be for the usual things any person faces – depression after a job loss or relationship breakdown; anxiety after a physical illness; and the usual rates of mental illnesses such as psychosis as would be found in the cisgender population (Dhejne et al., 2016).

There are some specific instances where non-binary people seek assistance, however. Chief among these is assistance with considering physical interventions, which will be discussed below. Additionally, people may seek assistance with coming out about their gender – a process, which can be difficult as people may not be familiar with the concept of non-binary genders at all. Consequently, people may unfortunately need to undertake the education of those around them as well as telling them of their personal situation – this may be best done in written form if people have high expressed emotion. Very often, however, people, including partners; children, parents; employers, etc., can be more accepting than was first feared. Certainly, children have no problem understanding and are not harmed by having non-binary parents or carers. And similarly, older people are quite able to understand and are very often accepting – the ‘their generation doesn’t understand’ tends to be simple ageism. It’s worth being wary of people projecting their own fears onto others, especially children and older people, because they do not wish to face them or wish to be seen to be supportive. Indeed non-binary people themselves may mask their fear of the process of moving into a more comfortable gender presentation due to what they “Know”/“Suspect”/ “Fear” will be the response.

Coupled with fears around coming out can be what it would mean to be a non-binary person; and of course the individual must ultimately decide this for themselves. However, it can be useful to explore the full range of possibilities in terms of gender presentation and identity rather than simply sticking with what a person feels they must do due to outside pressure from families; non-binary online communities; religious observance; reading material², etc. I find listening out for “Of course,” “Should,” and “Must” to be useful here – when I come across these my clinical ears prick up as there is usually something worth exploring that is being brushed over or taken for granted.

² Except for this chapter and Richards, Bouman and Barker (2017), which should be taken irrefutable truth naturally.

Indeed, it is worth noting here that some people engage with a non-binary identity on the way to a binary trans identity as a trans man or a trans woman as they feel it will be an easier place to be. Sadly, it seldom is, as people are often more accepting of men or women – even those who have ‘crossed the floor’ so to speak. Conversely, some people engage with a binary trans identity on the way to a non-binary identity, not uncommonly because they were unfamiliar with it as a possibility or were uneasy with it due to its lesser social acceptance. Indeed, some people identify either within the trans or cisgender binary due to fears around social opprobrium, when in fact their identity is non-binary. All these groups of people may benefit from structured assistance to determine what best suits them given their circumstances.

Professionals should be careful not to assume that people with intersections of marginalisation will have the same options available as they personally have; but should also be careful of patronisingly assuming that they do not. For example, it may be that a person with a certain ethnic background cannot fully express their gender for very practical reasons to do with homelessness should they come out. But the professional should not necessarily take at face value that this is always so, as here too fear may be masked by practical concerns which would not in fact materialise. A careful line must be walked between ignorance and colonialism.

At the moment it is necessary for mental health professionals to assess people who wish to have physical interventions, such as hormones and surgeries. All of the considerations above are useful in this endeavour as is a good basic psychological/psychiatric assessment. (See Richards, 2017 for full detail of how one might undertake such an assessment). Of course, there is a sensible argument that an assessment by a mental health professional is unnecessary as the person themselves are best placed to decide their gender, and gender expression. There is much merit to this argument, but it should be borne in mind that the few differentials which exist (Psychosis; ASD special interest; younger people searching for a social group; forensic psychological matters, etc.; cf. Richards, 2017) are best determined by a mental health professional. Additionally, within nationalised healthcare it is necessary to determine not only that the treatment does no harm; but is of some positive benefit - after all it is someone else’s money, which is being spent. In this case the determination of this benefit, given it is primarily of a psychosocial nature, is best undertaken by a mental health professional – arguably therefore a psychologist or specialist in transgender health (and naturally one who does not erroneously assume that gender or sexual diversity is psychopathology).

PHYSICAL INTERVENTIONS

Non-binary people may do a variety of things such that their gender is more accurately reflected. This may include clothing, haircuts, makeup, etc., or more permanent physical changes. These physical changes may be as a result of ‘cross sex’ hormones (i.e., testosterone for people assigned female at birth; or androgen blockade and oestrogens for people assigned male at birth) or surgical interventions. We shall briefly consider these in turn below. It is worth noting, however, that there can be an expectation by the non-binary person that if they make physical changes then that will force a reaction from others – perhaps acceptance from

a parent; less opprobrium from society; or more fixity in the mind of the person themselves. This can indeed be the case; however, it is certainly not invariably so, and consequently non-binary people should be assisted to have resolved their approach to such matters *before* undergoing physical interventions. Lest the intervention not have the desired outcome and the person then be left with a body which is not to their liking. Notwithstanding this, physical interventions can pay dividends for non-binary people in terms of mental health and consequent social outcomes and are therefore considered below.

Hormones

Physical changes using hormones will differ depending upon whether the person has had hormone blockade at puberty, most commonly using Gonadotropin-releasing hormone analogue (GnRHa) meaning they have not gone through puberty. Under these circumstances hormonal treatment will lead them solely up the path predicted by those hormones – feminisation from a ‘neutral’ base with oestrogens or masculinisation with androgens. Of course, if the person has already gone through puberty before treatment then their somatic ‘baseline’ will differ as it will already have been masculinised or feminised. For some this will be problematic as it will require additional treatments to align it with their identity, but for some it will require fewer treatments – as some changes will already have been effected though endogenous hormones triggering genetic expression prior to the addition of exogenous hormones and/or surgeries. For example, height cannot be altered once set at puberty.

Physical changes associated with testosterone for people assigned female at birth include height gain if no puberty has already been undergone. Whether puberty has been undergone previously or not, there will likely be body and facial hair growth; clitoral enlargement; cessation of menses; increase of muscle mass; body fat redistribution; deepening of the voice; and (if the person has a genetic propensity for it) going bald. Non-binary people may want all or some of this and careful assessment and assistance is vital. This is because many people are used to a consumer culture where you can order things ‘Your Way!’, but unfortunately at present, endocrine treatment doesn’t work in this manner. For example, there is no way to have a deeper voice without an increase in body hair as the two processes are concurrent. It may be possible to stop the [pubertal] process at a certain point, but this is not an exact science. An additional consideration is that some people misunderstand the nature of the changes – for example, they assume that because they are quite hirsute as a phenotypic female there will be no change taking testosterone; without considering what a hirsute phenotypical male looks like. Again, a careful consideration of the facts is vital to avoid misunderstanding.

One key consideration for this group, rather than those assigned male at birth, is that it can be easier to present in an androgynous way if you have not had the effects of male hormones – this is because both men and women may have head hair, but women are not usually bald. Similarly, both men and women may have smooth faces, but only men have beards. Both men and women may have relatively smooth skin; but only men have marked body hair. Those assigned female at birth who are seeking a more androgynous look may find it helpful to discuss the various changes they can expect in this light.

For those people assigned male at birth physical changes usually require both oestrogens and androgen blockade, although some people use oestrogens only as they wish for a lesser degree of effect. There will be no effects secondary to endogenous hormones such as height

gain; or development of body or facial hair; or voice deepening if treatment starts before they have commenced puberty. Usual effects of exogenous hormones before or after puberty include the development of breasts; softening of the skin; body fat redistribution; and azoospermia (absence of motile (and hence viable) sperm in the semen). There may be some reduction of body and facial hair, but not always, and this may need to be removed by mechanical means. There is not usually regrowth of capital head hair or any change to the voice if it has already broken in puberty. As above, careful consideration needs to be paid to the desires, and physical possibilities, of endocrinological management. For more information on this for both those assigned female at birth, and those assigned male, see Butler (2017) and Seal (2017).

Surgeries

Surgeries for non-binary people can affect a variety of body parts, sometimes including facial feminisation or masculinisation and quite commonly breast augmentation or removal and recontouring. Indeed, one of the most commonly requested surgeries for non-binary people is mastectomy and associated recontouring for people assigned female at birth. Also possible, although less commonly requested, for people assigned female at birth are the removal of the womb and ovaries (and with them the primary source of oestrogen and progesterone); the removal of the vagina; the creation of a scrotum and the creation of a phallus. The creation of a phallus may be through adapting the clitoris which has been enlarged by testosterone; or the creation of a wholly new phallus using a free graft from another area of the body – not uncommonly the forearm. For those people assigned male at birth surgeries may include the removal of the testes (and with them the primary source of testosterone) and the removal of the penis, although the tip of the glans may be retained and situated as a clitoris in order to retain sexual function. In both birth assigned males and birth assigned females some may opt for the genitalia of their non-birth assigned sex (i.e., a penis, testes and scrotum for birth assigned females; and a vagina and clitoris for birth assigned males) and some may opt for variations, including the removal of reproductive organs and a smooth contour of the genital region with a urethral opening only.

In all cases it is vital that people are counselled as to the possible risks, including failure of the operative site; loss of sexual function; and loss of continence when relevant. Additionally, some people, especially when younger, are used to having a fluid identity which they can change in different circumstances and as their identity develops. They may not fully appreciate the absolute finality of surgical interventions and their full understanding is vital before proceeding. For more information on this see Bellringer (2017); Ralph, Christopher & Garaffa (2017); and Yelland (2017).

Reproductive Matters

One further key issue is that exogenous hormones may remove reproductive capability; and the removal of the ovaries or testes certainly will. As with binary trans people, the drive to have a congruent body can be a strong one and reproductive matters may not seem relevant at that time, although they often loom rather larger later on. Fortunately, there is the

possibility of storing gametes prior to hormones in order to retain reproductive capacity. However, younger people especially may say that they have “never wanted children” and so opt not to do so. Given that in 2015 in the UK the average age of fathers was 33.2 years and mothers 30.3 years; and the average age of first-time mothers was 28.6 years, (with first time fathers not being reported, ONS, 2016) it is not surprising that people in their teens and twenties have never wanted children – that is the usual case. The difficulty arises because those [cisgender] people who also don’t want children at that age, but who retain their reproductive capacity, can change their minds and have children in their late twenties and early thirties - whereas those [non-binary] people without reproductive capacity cannot. It can be useful to explain that it is not about whether they want to have children (or definitely will do so) – it is whether they want the *option* to have children.

On that basis also, it is worth endeavouring to get young people to consider the bigger picture – where do they want to be in five or ten years, rather than where they want to be in three months. Because, of course, waiting a short while and storing gametes does not preclude treatment, it merely delays it a short while - allowing the young non-binary person to have treatment *and* reproductive options. As a side note, this principle also applies to young people who want to miss exams so as to have surgery – a short delay on the surgery such that they can sit the exams allows *both*, rather than one or the other.

One option some younger non-binary people cite is that of adoption which is an extremely decent thing to do. It is worth encouraging people to look into it in some detail, however, as many young people are unfamiliar with how long, and intrusive, the process is. Further, less than 4% of adopted children are under the age of 1 (Adoption UK, 2016) and approximately half have a diagnosed psychiatric disorder (Luke et al., 2014) as compared to one in ten in the general population (House of Commons Education Committee, 2016). This means that the simple idea of collecting an untroubled neonate as an alternative to biologically related parenting is unfounded. Of course, biologically-related parenting has difficulties also, perhaps involving assisted reproduction, surrogacy, pregnancy difficulties and the like. Before making these decisions it is as well for non-binary people to have all the facts at their disposal.

Lastly, in relation to physical interventions, it is important to emphasise that not all non-binary people will want to have physical interventions; and their legitimacy as non-binary people should not rest on such interventions - whether the questioning of that legitimacy comes from outside of the communities or within. Ultimately being non-binary must be about being *oneself* – whatever that means and howsoever it is realised.

CONCLUSION

Non-binary or genderqueer people then, are a heterogenous group of people linked by the fact they do not identify as male or as female. As this is an emerging field, there is little empirical research, but what there is suggests that while there may be particular vulnerabilities associated with social opprobrium, there are also possibilities to move beyond the constraints of the gender binary and towards a fuller realisation of human potential. As ever clinicians, lawmakers, community members will both pull together and be at cross purposes (and indeed a number of us are in more than one group). Consequently, it should be

remembered that we need to act with the least imposition, for the best possible outcome - for we share a common humanity, however we express it. We should also remember that, while the language and understanding in this emerging field will surely date these first tentative steps before even a few years have passed, the underlying intent will likely remain be for as all to be the most we can be.

LEARNING POINTS

- The evidence regarding the mental health of people with a non-binary gender is mixed; however, there is good evidence that prejudice can lead to anxiety and depression.
- Some non-binary people seek physical interventions to align their bodies more closely with their gender and there are generally good outcomes from this.
- Non-binary identities may be a step on a path to a binary trans identity. Conversely, a binary trans identity may be a step on a path to a non-binary gender identity.
- Increasing numbers of people are identifying outside of male or female; and legal recognition is starting to be afforded to these groups of people.
- Ensure that non-binary genders are respected within your professional setting – for example make sure forms do not only have two genders; staff use a variety of pronouns; and literature is respectful of gender and sexual diversity (GSD).

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Chapter 13

TRANSGENDER AND AUTISM SPECTRUM DISORDER

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OVERVIEW

Autism spectrum disorder (ASD) is characterized by difficulties in social communication and interaction, repetitive behaviour and specific interests. In transgender care, it has become evident that individuals with ASD are more likely to report transgender feelings than might be expected by chance. Prenatal exposure to testosterone, rigid thinking typical of ASD that leaves little room for being a female boy or a tomboyish girl, and an inherent feeling of being different that might be experienced as gender dysphoria, are among the hypotheses brought forward to explain this frequent co-occurrence. To date, no evidence supports any one of these hypotheses. Clinically, it is clear that a diagnosis of ASD does not rule out transgender feelings. Although eligibility assessment for gender affirming medical treatment might take more time and can be complex, individuals in the autistic spectrum should have access to this type of health care.

INTRODUCTION

One might ask why there is a need for a chapter dedicated to autistic spectrum disorder (ASD) in a book about transgender people. Psychiatric symptoms, such as anxiety and depression, may occur as a consequence of the minority stress transgender people often encounter. Stigmatization, peer victimization and family rejection can lead to increased rates of depression, anxiety and suicidality compared to cisgender people (e.g., Dhejne, van Vlerken, Heylens, & Arcelus, 2016). Apart from these emotional problems, clinicians involved in transgender healthcare have noticed that a substantial number of individuals attending transgender health clinics present with autism or ASD (e.g., de Vries, Noens, Cohen-Kettenis, Berckelaer-Onnes, & Doreleijers, 2010). This was the case for almost 10% of the referred children and adolescents at the Center of Expertise on Gender Dysphoria of the

VU University Medical Centre in Amsterdam in the Netherlands, a rate that has been observed in other transgender health clinics. This prevalence of ASD in children and adolescents attending transgender health clinics is 10-fold more than would be expected, based on the prevalence rate of ASD. These individuals pose, to both their families and professionals, challenging diagnostic and treatment issues. How should features of ASD in transgender people be interpreted? Can ASD be diagnosed in transgender people or are the feelings of gender dysphoria a symptom of ASD? Are there really more people with ASD among transgender people? And, if so, why? And what about the theoretical question of possible, shared underlying mechanisms or vulnerabilities explaining the existence of ASD in transgender people? Finally, can gender affirmative medical interventions be provided if transgender people also present with ASD, and what is the effectiveness of these interventions? The current chapter aims to address these topics and describes what our current state of knowledge is on the link between autism/ASD and transgender people. It tries to give answers so that transgender individuals, their families and transgender care providers are better equipped to deal with this, sometimes complex, co-occurrence.

AUTISM SPECTRUM DISORDER

ASD is a term used to define a ‘spectrum’ of developmental disorders. Different terms used for ASD over the years include Autism, Autistic Disorder, Asperger’s Disorder (AD), Autistic Spectrum Condition (ASC) and Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS) as per the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR) (APA, 2000). Currently, a more dimensional perspective is preferred as the different diagnoses previously described are not easily distinguishable (Lai, Lombardo & Baron-Cohen, 2014). In the present chapter, we will use the term “autism spectrum disorder.”

ASD presents with two core features: firstly, there are difficulties in social communication and interaction and, secondly, repetitive behaviour and specific interests are present (APA, 2013). Examples of the former include: making inconsistent or little eye contact, rarely sharing enjoyment of interests, having difficulties in understanding the point of view of others, having trouble with back and forth conversations, repeating words or phrases (echolalia), using words that seem odd or formal, or having an unusual robot-like tone of voice. Examples of the latter may consist of getting upset by a slight change in a routine, talking at length about a favourite subject without noticing that others are not interested, repeating certain behaviours, overly focused interests, or intense interest in certain topics, such as numbers, details, or facts. ASD may be accompanied by intellectual disability, attention difficulties and physical health issues.

ASD features should typically have been observed from a young age (the first two years of life) and, in most cases, the diagnosis is given in childhood. However, increasingly, ASD is detected later in life (e.g., in adolescence or adulthood), because symptoms were not recognized at a younger age and knowledge on ASD has been disseminated to adult specialists. Whereas autism used to be viewed as a rare condition, more recent prevalence rates estimate that ASD occurs in around 1% of the population. It is suggested that this observed increase in prevalence rate might be related to a better recognition and detection of autistic spectrum features, but a true increase, due to yet unknown reasons, might also be the

case. Additionally, in terms of aetiology, complex interactions between known and unknown genetic predispositions and non-genetic risk factors may most likely be involved in the development of ASD. Since ASD symptoms are typically present from a very young age, it is also viewed as a disorder of brain development, or as a neurodevelopmental disorder (Lai et al., 2014).

The first clinical descriptions of ASD were described in the 1940s, when the term Autism was first used for social withdrawn behaviour (Asperger, 1944; Kanner, 1943). There has been an expansion of knowledge and research on ASD since then. For example, children with ASD show difficulties in general identity development; hence, it was questioned whether they would be able to develop a gender identity. One, first hallmark study on gender identity in children with autism by Abelson (1981) found that, although dependent on cognitive abilities and mental age, there was the potential to develop a gender identity. The design of this study, however, made it difficult to determine whether this merely reflected a cognitive understanding of gender or the core feeling of being a boy or a girl.

ASD AND TRANSGENDER FEELINGS

It has become evident that people on the ASD spectrum are vulnerable to other psychiatric disorders, including affective disorders (depression and anxiety) and attention deficit hyperactivity disorder (Lai et al., 2014). Over the last two decades, an interest evolved in the co-existence of features of ASD in people who present with feelings of gender dysphoria. Various cases studies were published in medical literature (e.g., Mukaddes, 2002; Williams, Allard & Sears, 1996). These first publications raised the questions as to whether it would at all be possible that ASD in transgender people could be diagnosed or whether the gender non-conformity should always be interpreted as a symptom of the autistic behaviour. After these first publications, studies on larger samples of transgender people and samples of children with ASD examined their co-occurrence (e.g., Skagerberg, Di Ceglie & Carmichael, 2015; Tateno, Teo & Tateno, 2015). These studies showed the prevalence rates of ASD in children referred to transgender health clinics was higher than would be expected (e.g., de Vries et al., 2010). Although these results confirmed the clinical impression, the challenges concerning the diagnostic and treatment decisions were not yet resolved. Very recently, a large group of clinicians formulated the first guidelines for the diagnosis and treatment of adolescents with autism spectrum symptomatology, presenting with transgender feelings (Strang et al., 2016). In the following sections, the chapter firstly gives an overview of the co-occurrence rates in the current literature. Secondly, hypothesized underlying factors are discussed. Finally, the clinical guidelines and implications pertaining to ASD and treatment are described. Clinical vignettes illustrate the chapter.

VIGNETTE – SUSAN

Susan was 10 years-old when she was referred to the gender identity clinic. She was diagnosed with autism (Pervasive Developmental Disorder Not Otherwise Specified

according to the DSM-IV), because she had increasingly distressing social and behaviour problems at home and school. As a toddler, Susan was late with speech and language development and liked to play alone. She had explosive temper tantrums when she was frustrated in her strong desires and, at the age of 10, she could still get extremely angry when things went differently than she had expected or asked for. She has mild learning difficulties and is in special education. From a young age on, she has made it clear that she does not want to wear dresses and has asked for specific male shirts and trousers. Her long hair was cut short at around the age of 7, at her request. She never liked to play with dolls or girls' toys, but preferred trains, cars, Pokémon cards and playing soccer, mostly with boys. She knows all famous soccer players by name and can endlessly talk about the soccer competition results and important players and clubs. She says that she dislikes girls and girls' interests, but, in the meantime, gets angry when others call her male or ask her questions as to whether she is a boy or a girl. Parents and teachers at school want advice on how to deal with her current gender non-conforming behaviour. Also, her parents are concerned, because, in Susan's older sister, puberty started at age 10, and they are concerned what will happen when Susan's breasts start to develop. During assessment, Susan has a hard time speaking out about what she thinks and often replies with 'don't know.' She is clear in stating that she does not want to change anything about her body, especially not her sex characteristics, although she hardly dares to say the words that indicate the intimate body parts. She knows about the possibility of puberty suppression, but explicitly says she does not want it because the injections hurt. During further diagnostic sessions, information was shared with her about the differences between natal sex, gender identity, gender role and sexual orientation. Susan was challenged to think less rigidly about gender stereotypes by showing her gender non-normative role models. At the end of the assessment sessions, Susan concluded that she likes boys' things, and identified as a tough girly-girl and not a boy. She has learned what she can answer when other people ask her questions.

HOW OFTEN DO FEELINGS OF GENDER DYSPHORIA AND ASD CO-OCCUR?

While the case studies described the existence of ASD in transgender people, over the past few years, the clinical impression that feelings of gender dysphoria and ASD might co-occur more often than would be expected by chance, has been studied in different ways. Only one study ascertained an ASD diagnosis using a diagnostic interview schedule (de Vries et al., 2010). Most other studies investigated ASD symptoms by use of questionnaires, and not formal ASD diagnoses, in people with gender dysphoria (e.g., Jones et al., 2012). Four studies investigated feelings of gender dysphoria in people with ASD (e.g., Janssen, Huang & Duncan, 2016). All of these studies found some evidence of an over representation of ASD in people with feelings of gender dysphoria.

CO-OCCURRENCE RATES OF FEELINGS OF GENDER DYSPHORIA AND ASD

The present estimated prevalence is that 1% of children, adolescents and adults are diagnosed with autism (Lai et al., 2014) and that 0.6% of adults identify as transgender (Flores, Herman, Gates & Brown, 2016). To date, all studies performed found higher rates of feelings of gender dysphoria in people with ASD and vice versa than would be expected, based on the prevalence previously mentioned. The only study that used a trained professional who gave the autism diagnosis (de Vries et al. 2010), found that 7.8% of the children and adolescents with gender dysphoria had a diagnosis of autism. Other studies investigated ASD symptoms by parent-report questionnaires in children and adolescents referred to transgender health services. They found percentages of ASD symptoms ranging from 14%-27% (Skagerberg et al., 2015; van der Miesen et al., in preparation, b), which is considerably higher than the 1% from the general population. The two studies in adult transgender people found increased ASD features compared to the general population, with percentages of ASD symptoms, ranging from 5.5-13% (Jones et al., 2012; Pasterski et al., 2014). In children, adolescents and adults already diagnosed with autism, gender variance (it was asked whether someone ‘wanted to be the other gender’) ranged from 4.8%-11.3%. (Janssen et al., 2016; Strang et al., 2014; van der Miesen et al., in preparation, a).

WHY ARE THERE HIGHER NUMBERS OF PEOPLE WITH ASD AMONG TRANSGENDER PEOPLE?

Although the co-occurrence rates suggest a link between autism and transgender feelings, there are, at present, only theories and hypotheses as to why transgender feelings and ASD co-occur. Until now, the evidence about these various hypotheses is very limited. Below, we review the various hypotheses that have been put forth in the literature to date.

THE EXTREME MALE BRAIN THEORY

Perhaps the most well-known hypothesis is the extreme male brain theory, proposed by Baron-Cohen (2009). According to this theory, males in general have a stronger drive to systemize (to analyse and conduct systems) while females have a stronger drive to empathize (affectivity and mindreading). People with ASD present with an extreme of the male pattern and show enhanced systemizing and impaired empathizing abilities. Exposure to increased prenatal testosterone levels is considered as one of the causes for autistic traits (Baron-Cohen, 2009). The same increased exposure to prenatal male hormones may also be related to transgender feelings, as an expression of extreme male characteristics (in assigned females at birth) (Jones et al., 2012). So, prenatal testosterone may be related to both autism and transgender feelings and could explain the link between them. Indeed, some studies find increased autism features just in birth assigned females (Jones et al., 2012), while others find them in both birth assigned males and females, and, for the latter, it is not clear how the underlying mechanism would work (e.g., Pasterski et al., 2014; Skagerberg et al., 2015).

OTHER HYPOTHESES

Various explanations come from clinical observations. For example, the poor social understanding and difficulties in interactions, characteristic of ASD, might make individuals with ASD susceptible to feelings of gender dysphoria (Landén & Rasmussen, 1997). The feeling of always being different from peers may then be attributed to feelings of gender dysphoria (de Vries et al., 2010). Obsessive interests of ASD might be mistaken for transgender feelings. For example, pre-occupations with feminine dresses, activities, and objects of young boys with autism (Williams et al., 1996) might then be seen as a gender dysphoric expression actually stemming from the autism (Tateno, Tateno & Saito, 2008).

Rigid thinking typical for ASD (de Vries et al., 2010) might also lead to increased rates of transgender feelings in people with ASD. It may be that individuals with ASD are not able to develop flexible thoughts about gender and stick to gender stereotypical, binary, black and white convictions. As a consequence, tomboyish girls or feminine boys might confuse their gender non-stereotypical interests with a gender variant identity (VanderLaan et al., 2015).

Whereas most clinicians think that ASD makes one susceptible to transgender feelings, others suggest that autistic symptoms in gender variant children stem from the gender dysphoria itself, and do not deserve a real diagnosis of ASD (Skagerberg et al., 2015). One example is that individuals with feelings of gender dysphoria may have social difficulties caused by being subject to a high level of bullying (Tateno et al., 2008).

VIGNETTE- DANNY

Danny was 13 years old when he was referred to the gender identity clinic. He has always had a great interest in dolls and dressing up. He used to play for hours in his room and make up long fantasy stories on old and faraway times. He also liked to draw, using only specific colours that he liked. In his play, he often sang and danced. The dresses that he used for his play would preferably be from special fabric, and it was important to him how it felt when he touched it. He has always had an interest in the long hair of girls, and especially his mother's. Now he wished to grow his own hair long. Once in a while, Danny had expressed that he would prefer to be a girl, despite the fact that his female behaviour only occurred in his own room, hidden away from the rest of the family or peers. Furthermore, at home and in school, he wore boys' clothes and had very little interaction with children of either gender. Now, his mother was concerned that puberty would be stressful for Danny and that he would not want male sex characteristics and might want female body characteristics, like breasts. During the diagnostic sessions, Danny showed different autistic symptoms. He hardly made eye-contact, spoke in a very concrete and matter-of-fact way, and was rigid in his thinking. He talked about his female interests and said that he would have liked to have been born a girl, but doubted whether gender affirmative medical treatment could make him into a perfect woman and was, therefore, not at all sure about treatment. He did not dislike his present prepubertal body, including his penis, although was concerned about a lowering of the voice and facial hair growth. He would like to have breasts and imagined that it could be nice to be treated and named as a girl.

Meanwhile, Danny was having increased difficulties at school; he did not want to participate or do homework for subjects that he was not interested in. He also had the feeling that he was teased by classmates and often refused to go to school. At home, he had many conflicts, especially with his father, who had rigid and strong ideas that often did not match with Danny's views. Along with the sessions at the gender identity clinic to consider medical interventions or a social transition, it was decided that Danny would be referred to an autism clinic for diagnosis and treatment of his probable co-occurring autism, which had not been diagnosed at an earlier stage.

DIAGNOSIS AND TREATMENT

Features of ASD in transgender people present with clinical challenges (e.g., van der Miesen, Hurley & de Vries, 2016). Guidelines for diagnosing and treating transgender adolescents with ASD (Strang et al., 2016) were recently published and, in the literature, certain implications and challenges for diagnostics and treatment are suggested. These are described in the following sections.

IMPLICATIONS AND CHALLENGES FOR ASSESSING SUITABILITY FOR GENDER AFFIRMATIVE MEDICAL INTERVENTION IN PEOPLE WITH ASD

First of all, it is important to state once more that an ASD diagnosis itself, does not rule out suitability for gender affirmative treatment (Strang et al., 2016). Some individuals with autism feel extremely worried as to whether they will be allowed such treatment, even to the extent that they try to conceal their autistic features. For them, this conclusion should be affirming, although it should also be acknowledged that complexities in assessing suitability for treatment may arise. These can be due to, for example: communication deficits, concrete and rigid thinking, limited self-awareness, problems with executive functioning and the often peculiar and obsessed presentation (Strang et al., 2016). It becomes extremely complicated when an individual's ability to express themselves linguistically is limited (Mukaddes, 2002; Tateno et al., 2008). Other obstacles may be a poor compliance with attending clinical appointments (Perera, 2003), or social withdrawal, or social awkwardness related to gender dysphoria feelings.

To tackle these complexities, transgender care professionals should collaborate with autism specialists, or refer transgender individuals with ASD for diagnosis and management of ASD first. Since adolescents and adults with ASD are at increased risk of gender variance (Strang et al., 2015; van der Miesen et al., in preparation, b), it is recommended that clinicians working with individuals with (symptoms of) ASD also screen for gender issues (Strang et al., 2016).

ASSESSMENT OF PRE-PUBESCENT CHILDREN WITH TRANSGENDER FEELINGS AND ASD

Developmentally, most pre-pubescent children with gender dysphoria (around 15-25%, depending on which study), but without ASD, will desist ('desisters') when they reach the age of puberty, whereas in transgender adolescents, the wish to be of the other gender most often persists ('persisters'; e.g., Wallien & Cohen-Kettenis, 2008). Since children with autism have a more rigid, concrete, binary thinking style, it may be more difficult to imagine that their cross-gender behaviour and, sometimes, cross-gender identity feelings may fade or disappear when growing older. Therefore, it is cautioned that irreversible treatments should only be started if it is clear that there are core and persistent feelings of gender dysphoria and this is not a transient obsession. Since children with ASD may need more time before they are psychologically mature enough to make an informed consent decision regarding medical gender affirmative treatment, it may be that puberty has already commenced. In those cases, a careful balance should be made between the benefits and disadvantages of providing puberty suppression. With regard to early social transitioning, the same holds true. In children with ASD, explaining that they are allowed to exhibit gender variant behaviour without having to *be* the other gender is sometimes enough of a relief. Children with ASD, but adolescents and adults as well, may struggle, due to their rigid thinking, to see gender as a spectrum that includes different components, like gender identity (the inner feeling), gender role (the outward behaviour) and physical sex characteristics (the body) (Strang et al., 2016). Psychoeducation on the different options to express transgender feelings may help to make steps that fit best (e.g., the possibility of incorporating aspects of the other gender without a gender role transition).

VIGNETTE – JAMIE

Jamie was 16 years old when he was referred to the gender identity clinic at his request. At primary school, he was diagnosed with autism because of a range of specific and stereotyped interests and behavioural problems that required attention. He had recurrent obsessional interests; for a long time, he wanted to know everything about the human body; later, he was into technical Lego and after that it was all about Star Wars. School had always been problematic, despite his above average intellectual capacities. At home, he had many conflicts with his younger sister and brother; he found them irritating, they made too much noise. Presently, he is in secondary school doing his final examinations and making choices for further vocational education. Apart from school, it is mostly computer games that he is involved in. For hours, he engages in role playing games or watching Japanese Anime movies. His parents want him to get out more and meet friends. Jamie has replied that he has many friends around the world and, via the Internet, he spends many hours with them. Six months ago, he came to his parents and told them that he has studied and thought hard and now knows why he feels so different from other kids. He is convinced that he is transgender and wants to have gender affirmative treatment and live his life as a woman. Secretly, he has started to borrow clothing from his sister and mother and wears them in his room. He is letting his hair grow and wants to be called Tina. On the Internet and in his games, he is a

female character and many of his internet friends think that he is a girl. His parents are extremely worried that this wish is another of his temporary obsessions. Since it is the only thing he can talk about, taking all his time and energy, they support him in his wish for referral and hope that the gender identity clinic can be of help in sorting whether he is ‘real’ transgender or whether it is another obsession. During the diagnostic sessions at the gender identity clinic, Jamie was extremely impatient. Every time he came in, he wanted the medical treatment to start immediately. He expressed feelings of hopelessness and suicidality. In a session with his parents and an autism counsellor, it was decided that the latter will accompany Jamie to the gender clinic and support him in his daily functioning in order to help him focus on his school exams. A shared goal of ‘finding out how to become more happy’ for the sessions was formulated and Jamie agreed with this. Gender affirmative treatment will be one of the options to be explored to reach that goal, but other options will also be explored. Still, with some resistance, Jamie comes to the sessions, but is no longer acutely suicidal and is working better at his school examinations.

ASSESSMENT OF ADOLESCENTS WITH TRANSGENDER FEELINGS AND ASD

Many adolescents with gender dysphoria come with a straightforward wish for medical gender affirmative treatment, and this is often even more strongly expressed by individuals with autism spectrum difficulties. One of the challenges, then, is to create time to fully explore the adolescent’s transgender identity. In that process, it is often helpful to use psychotherapeutic elements that help the adolescent to develop a broader perspective of gender (Balleur-van Rijn & de Vries, 2014.). Adolescents and their parents may profit from psychoeducation, which should include information about the occurrence of ASD in transgender people (Strang et al., 2016). Adolescents can be encouraged to distinguish the different aspects of gender in themselves (e.g., gender identity, gender role, natal sex, and sexual orientation), and to consider how they experience themselves with regard to gender identity, gender role and sexual body characteristics. Making this distinction and recognizing these different characteristics is helpful for developing a self-image. It is also important that realistic expectations of what medical treatment can accomplish are explored, along with the shortcomings of medical treatment. Adolescents with ASD may have a highly perfect and idealized picture of how their bodies should be adapted and of what the medical professionals are able to accomplish. Protecting the adolescent from these, too high, expectations regarding treatment outcome is an important goal of the assessment process. As limited organizational skills may be another challenge that young people with ASD may present with, it is important to involve parents or caregivers (Strang et al., 2016).

GENDER AFFIRMATIVE TREATMENT IN ADOLESCENTS WITH TRANSGENDER FEELINGS AND ASD

There is clinical evidence that medical gender affirmative treatment is also effective in people with ASD. However, specific challenges may arise. For individuals with ASD, who

may struggle with changes in life anyway, it may be difficult to socially transition. A social transition that is guided, step by step, and involves social and family support can be helpful in this regard, and starting with a lower dose of hormones, followed by a more gradual increase of the dose, should be considered (Strang et al., 2016). As poor compliance with attendance to transgender health services may be a problem (Perera, 2003), involving parents and caregivers is often necessary (Strang et al., 2016). It seems to be important to provide psychological support during the changes that occur, if gender affirmative treatment is started, including helping to integrate these changes into the client's sense of self (Jacobs, Rachlin, Erickson-Schroth, & Janssen, 2014).

ASSESSMENT OF ADULTS WITH TRANSGENDER FEELINGS AND ASD

To date, there is a large body of evidence showing that gender affirmative treatment improves the life of transgender adults (Murad et al., 2010). Although studies looking at the outcome of gender affirmative treatment for transgender people who have a diagnosis of ASD do not exist, treatment should not be ruled out. As in adolescents (Strang et al., 2016), psychoeducation during the assessment and treatment process is advised. Several case studies reported that hormonal treatment was successful in individuals with gender dysphoria and autism (Jacobs et al., 2014; Kreamer et al., 2005; Lemaire, Thomazeau, & Bonnet-Brilhault, 2014). In contrast, other specialists withheld hormonal treatment because the feelings of gender dysphoria appeared transient in some males with ASD (Parkinson, 2014).

CONCLUSION

The clinical observation that individuals with ASD are frequently seen by clinicians involved in transgender healthcare has been confirmed in several recently published studies. There is an overrepresentation of (symptoms of) ASD in transgender individuals and of transgender feelings among individuals with ASD. There are several hypotheses as to why this is the case, but at present there is no evidence yet for an exact causal mechanism. The existence of ASD in people with feelings of gender dysphoria could provide complex assessment and treatment challenges. This notwithstanding, ASD does not exclude gender affirmative treatment. An extended assessment process may be needed to tackle the complexities that result from the ASD diagnosis. Gender affirmative treatment can be provided, although often with extra psychological and social support.

LEARNING POINTS

- The current literature shows growing evidence of an overrepresentation of ASD in people with transgender feelings.
- There is also some evidence that an overrepresentation of transgender feelings exists in people with ASD.

- Several underlying hypotheses have been postulated to explain the relationship between ASD and people with transgender feelings, but almost all lack evidence.
- People with ASD who present with transgender feelings may require a longer process of assessment for suitability for gender affirmative treatment.
- Presenting with a diagnosis of ASD should not affect suitability for gender affirmative treatment.
- Extra psychological support, including extra psychoeducation and social support, is advisable during assessment and gender affirmative treatment of people with ASD.

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Chapter 14

MENTAL HEALTH PROBLEMS IN THE TRANSGENDER POPULATION: WHAT IS THE EVIDENCE?

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OVERVIEW

This chapter discusses the findings from previous studies investigating mental health problems among transgender people. As most of the studies take place among people attending transgender health services the chapter will primarily focus on this group. The chapter will critically review the findings of the studies in order to make sure that they are relevant to the majority of the transgender people attending transgender health services. The chapter will divide the studies in two main categories, 1) those investigating how common mental health problems are in people by comparing them to cisgender groups and 2) studies looking as to how mental health problems change before and after treatment.

INTRODUCTION

Over the last 25 years a number of studies have investigated how common mental health problems, and mental health disorders, are within the transgender population. Before we critically discuss what the evidence is, we need to describe what we mean by mental health, mental health problems and disorders.

Mental health has been described as a state of well-being in which an individual is able to fulfil their potential, can cope with everyday stresses, work productively, and is able to contribute to their community (World Health Organization (WHO), 1992). Although the definition of mental health may vary according to culture, it is generally understood that people who display a ‘healthy’ mental health have the ability to develop psychologically, emotionally, intellectually and spiritually; are able to develop and sustain mutually satisfying personal relationships; can use and enjoy solitude; are able to become aware of others

and empathise with them; and can develop a sense of right and wrong (Mental Health Foundation, 1999).

Therefore, a mental health problem can be described as a disturbance of the mind of a person that can affect mood, behaviour or functioning. This term (mental health problem) describes a broad range of emotional and/or behavioural difficulties, which may cause concern or distress to the individual and/or others. They are relatively frequent and include mental health or psychiatric disorders, which are more severe and/or persistent (Health Advisory Service, 1995). The term “psychiatric or mental health disorder” implies the existence of a clinically recognizable set of symptoms that allows its classification under an approved system such as the *International Classification of Diseases and Related Health Problems* (ICD), currently in the 10th edition (WHO, 1992) or *The Diagnostic and Statistical Manual of Mental Disorders* (DSM), currently in the 5th edition (APA, 2013; Health Advisory Service, 1995).

The term “co-morbidity” is used to denote the existence of more than one mental health or psychiatric disorder within a person. For example, we know that depressive disorders are not uncommonly comorbid with anxiety disorders. Unfortunately, as different diagnostic terms have been used over the years to describe transgender people (see classification chapter), when a transgender person suffers from a mental health problem, the term co-morbidity has been used. This is not right. As we support the de-pathologisation of being transgender, the term co-morbidity will not be used in this chapter to describe the presence of one mental health problem or disorder in a transgender person.

This chapter describes how common (or not) mental health problems (whether symptoms or disorders) are in transgender people and what the risk and protective factors are for their development. We would like to present the available literature with a critical eye, as we want to put some research in the right context.

ASSESSING THE AVAILABLE LITERATURE CRITICALLY

When reviewing the literature in the field of mental health problems in transgender people we need to take the following factors into consideration.

- 1) *Type of study*: The majority of the studies available for review in this area are cross-sectional. This means that they measure the existence or the severity of a mental health problem, disorder or specific behaviour (such as suicidality) at one specific point, (usually before an assessment takes place at a transgender health clinic). There are a few studies, which are longitudinal. These studies look at how people evolve over time; they investigate mental health problems, symptoms or specific behaviours after gender-confirming medical intervention (GCMI) and compare these to pre-GCMI. Longitudinal studies provide a vital insight into the effect of GCMI on the mental health of the transgender person.
- 2) *Population*: Unsurprisingly, and as previously discussed in the epidemiological chapter, the majority of studies in the field of transgender health have included people attending transgender health services, as they are the easiest and most accessible group to invite for research studies. The results of these studies cannot be

generalized to the transgender population as a whole; they are only valid for the population studied. Therefore, when we read studies in the field of mental health in transgender people, we need to query the make-up of the studied population. How were they recruited? Are they adults, children, or young people? Only people attending services? On treatment? Etcetera.

- 3) *Validity of the Measurements:* The tools used by researchers to assess the existence of mental health problems or disorders need to be validated for the specific population they are studying. Measurements used for the cisgender population may or may not be valid for the transgender population. For example, a measurement developed to assess body dissatisfaction as a risk factor for an eating disorder may indicate high levels of dissatisfaction among transgender people without being an indication of an eating disorder.
- 4) *Type of measurements (questionnaires versus interviews):* Many studies aimed at measuring the prevalence of mental health problems have used self-rating questionnaires (in contrast with rating scales completed by clinicians). The use of questionnaires in the field of mental health is usually linked to studies looking at symptoms and not at disorders (although some questionnaires may provide information as to the possibility that a disorder exists, such as the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). Validated semi-structured interviews tend to be used to make a diagnosis of a mental health or psychiatric disorder. Interviewing people is time consuming and costly and, because of this, studies using semi-structured interviews include lower numbers of people and rarely any controls.
- 5) *Existence or not of a control group:* In order to make sense of the results of any study in a specific population, it is vital to compare these results to another group of people. Only this way will we be able to know whether the results are exclusively found in the population studied. It is also important that both groups are matched for specific variables, such as age or gender (assigned and experienced). This is particularly important in the field of mental health, as younger people tend to have different mental health problems than older people; and the prevalence of specific mental problems (such as anxiety) are more common among cisgender women than cisgender men. Some studies have compared prevalence rates of mental health problems in transgender people to cisgender people or to population norms. However, as many of these studies have not properly matched both groups, we need to be careful when interpreting these results. An example of this can be found in many of the studies that have compared transgender people on treatment (for instance, on cross-sex-hormone treatment) with transgender people not on treatment. However, these studies do not usually match the two groups, or control for factors known to affect mental health problems (such as, age, gender, or social support).
- 6) *Outcome definition:* Assessing symptoms of mental health disorders (such as panic attacks or low mood), or specific behaviours (such as self-harming or suicidal attempts) is considerably less complicated than assessing whether a person fulfils the diagnostic criteria for a disorder (such as social anxiety or depressive disorder). It is not surprising, therefore, that studies looking at mental health problems in the transgender population have focused on symptoms more than disorders. As explained above, the assessment of a disorder frequently requires a semi-structured and

validated face-to-face interview and the assessment of symptoms can be easily achieved through self-completed questionnaires. So, when assessing studies in mental health, we need to clarify what they are trying to investigate (what is the main outcome of interest).

When assessing the existence of a mental health disorder, it is also important to specify whether they are investigating current problems (at the time of the assessment) or lifetime problems (which may have occurred at any time during one's life). The assessment of lifetime mental health disorders is less accurate, as this can only be done retrospectively.

Keeping the aforementioned points in mind, we will divide this chapter into two main sections, namely cross-sectional studies and longitudinal studies. In view of the large number of cross-sectional studies, we will divide this section into three sub-sections: 1) studies looking at disorders 2) studies looking at symptoms, and 3) studies looking at specific behaviours associated with mental health problems (suicidal and non-suicidal self-injury behavior (NSSI)).

CROSS SECTIONAL STUDIES: HOW COMMON ARE MENTAL HEALTH PROBLEMS AT ONE SPECIFIC POINT IN TIME?

Overview of the Studies

We conducted an electronic literature search looking for articles published between January 1966 and April 2015, using the following data bases: Web of Science, Google Scholar, and PubMed. In order to find the right publications we used the following key words: for terms referring to transgender people (we used the words used in the past to refer to transgender people such as 'transgender', 'transsexual', 'trans men', 'trans women', 'gender dysphoria', 'gender identity disorder'), and for terms referring to mental health we used the words "mental health," "psychopathology," "psychiatric," "depression," and "anxiety."

Type of Study

A total of 61 studies were identified. From which 15 were cross-sectional studies investigating prevalence rates of mental health or psychiatric disorders, 14 described the presence of mental health symptoms and 32 focussed on specific behaviours such as NSSI and suicidality. Most of the studies used current prevalence rates, primarily data collected as part of the assessment at transgender health services. A few studies also looked at prevalence rates of mental health symptoms, behaviour and disorders during the person's lifetime (Bandini et al., 2011; Claes et al., 2015; Hepp et al., 2005; Gómez-Gil et al., 2009).

Population

Most of the studies were conducted in transgender healthcare settings. Only a few studies used information from people not attending clinical services (Birkett et al., 2015; Haas et al., 2011; Moody & Smith, 2013; Spittal et al., 2015;). This means that the results of most studies can only be generalised for transgender people in contact with healthcare settings. Within the

studies looking at transgender people attending clinical services, very few studies selected a non-treated population (non in GCMI) (Heylens et al., 2014a; Claes et al., 2015; Colizzi et al., 2015). The few studies providing information of life-time mental health problems may help to understand the levels of mental health problems and symptoms in people not in touch with transgender health services. However, this information is collected retrospectively, which limits the validity and generalisability of the results.

Measurements

The most commonly used measurement to assess the existence of a mental health disorder was the Structured Clinical Interview for DSM (SCID) (First et al., 2002). For the assessment of symptoms of mental health problems or disorders the Symptom Checklist -90 (SCL-90; Derogatis et al., 2010) was commonly used.

Controls

Only a small selection of studies used a control group (Auer et al., 2013; Bouman et al., 2017; Davey et al., 2016; Dhejne et al., 2011; Duisin et al., 2014; Kim et al., 2006; Simon et al., 2011) and few studies matched the cisgender controls for factors known to affect psychopathology (such as age or gender) (Bouman et al., 2017; Davey et al., 2016; Dhejne et al., 2011; Kim et al., 2006). Most studies used non-matched normative data (from the general population) to reach a conclusion as to whether the prevalence found in the transgender population was high or not (i.e., Gómez-Gil et al., 2012; Weyers et al., 2009).

Outcome Definition

Out of the reviewed studies, 15 described primarily mental health or psychiatric disorders as diagnosed using DSM criteria (ranging from DSM-III-R to DSM-5) (American Psychiatric Association, 1987, 1994, 2000, 2013) and the ICD-10 (World Health Organization, 1992). Fourteen studies focussed exclusively on symptoms (or psychopathology) and 31 described specific behaviours related to mental health problems such as self-harm, non-suicidal self-injury (NSSI) and suicidality. We will be looking at these studies in more depth later on.

Studies Investigating Mental Health or Psychiatric Disorders

The 15 studies that used validated semi-structured interviews to reach a mental health or psychiatric diagnosis agreed that the main diagnoses found in the transgender population attending transgender health services were depressive and anxiety disorders. The existence of severe psychiatric disorders, such as schizophrenia or bipolar affective disorder, was rare and not more common than in the cisgender population (Bandini et al., 2011; Haraldsen & Dahl, 2000; Hepp et al., 2005; Hoshiai et al., 2010; Fisher et al., 2013; Gómez-Gill et al., 2009; Heylens et al., 2014a; Mazaheri Meybodi et al., 2014). The lack of matched controls used in those studies does not allow us to reach firm conclusions as to whether this is higher or lower than among the cisgender population. In spite of the limitations of the studies, prevalence rates of current psychiatric disorders (depressive and anxiety disorders) among transgender people attending transgender health services was found to range between 18.7% (Fisher et al., 2013) and 38% (Heylens et al., 2014a).

Studies Investigating Symptoms of Mental Health Problems or Psychiatric Disorders

We found a total of 14 studies describing the frequency and severity of mental health symptoms in the transgender population attending transgender health services (i.e., Arcelus et al., 2016; Gómez-Gil et al., 2012; Gorin Lazard et al., 2012; Simon et al., 2011). As these studies used different tools to measure mental health problems, direct comparison is difficult. Studies that measure severity of the mental health symptoms at the time of the assessment (and before GCMI) found high levels of mental health symptoms when compared to the population norms available in the literature (i.e., Arcelus et al., 2016; Auer et al., 2013; Heylens et al., 2014b). Studies using cisgender control groups confirmed previous findings from population norms (i.e., Kim et al., 2006; Gómez-Gil et al., 2008), even when matched by age and gender (Bouman et al., 2017; Kim et al., 2014).

Studies Investigating Suicidality and Non Suicidal Self Injury (NSSI) Behaviour

A large number of studies (n=32) explored levels of NSSI (n=6) and suicidality (n=26) in the transgender population. Non-suicidal self-injury (NSSI) is defined as the direct and intentional injury of one's own body tissue without suicidal intent, such as cutting, burning, and hitting oneself, and has been found to function as a way to regulate emotions and a means of self-punishment (Claes & Vandereycken, 2007).

There was an overall agreement among the studies that NSSI was not uncommon among transgender people attending transgender health services, who had not received treatment. In one study, more than one third of participants reported a lifetime history of NSSI, which was found to be more prevalent in transgender men (57.7%) than transgender women (26.2%)) (Claes et al., 2015). Studies looking exclusively at young people found even higher rates of NSSI (46.3%) (Arcelus et al., 2016). When including people at different stages of transition, the level of NSSI was considerably lower (19%), which may indicate the positive role of GCMI (Davey et al., 2016).

The twenty-six studies investigating the association between lifetime suicidality (suicidal thoughts, suicide attempts and suicide rates) among the transgender population (primarily not on treatment) paint a very bleak picture, with between 32%-81% of transgender people acknowledging having a history of lifetime suicide attempt or attempts (Clements-Nolle et al., 2006; Jones et al., 2015; Mustanski, et al., 2010; Mustanski and Liu, 2012). This is significantly higher than the national average of the USA (4.6%), where most of the studies took place. The fact that, in many parts of the USA, access to transgender healthcare is limited may be an important underlying reason for the high levels of lifetime suicidality in these studies.

An important study by Dhejne et al. (2011) found that mental health problems, of transgender people post GCMI were high. The study compares the transgender population, who underwent their treatment between 1973-2003, post GCMI, with a matched population from the national population register in Sweden. This study also included transgender people who were treated more than 20 years ago, when society's view and tolerance regarding transgender people and medical and surgical interventions may, perhaps, have been very

different and less facilitating. This study has been misquoted many times. This is not a longitudinal study looking at the same people before and after treatment, but a large cross-sectional one. Conclusions as to the effect of GCMI on mental health cannot be reached from this study. Moreover, studies investigating the outcome of transgender people who transitioned decades ago will be very different from those studies looking at people who transitioned in the 21st century. Although Dhejne et al.'s study offers longer follow-up data, these will undoubtedly have been affected by changes in the levels of transphobia and discrimination over time (Bauer et al., 2015; Lawrence & Zucker, 2012). Nevertheless, we may also take Dhejne et al.'s (2001) study as a timely reminder that, perhaps, some transgender people will benefit from support and follow up post GCMI. The benefits of the provision of long-term follow-up may well outweigh the healthcare costs, which comparatively tend to be minimal for outpatient clinical services. The case for the provision of follow-up clinical services for transgender people is further strengthened by other studies, which have also found higher rates of suicidality among transgender people post GCMI compared to the general population. The number of suicides for transgender males was similar to the one expected in the cisgender population. These results confirm those from another Dutch study looking at the transgender population on long-term cross-sex hormones, which found that mortality by suicide was increased by six-fold among transgender females compared to the cisgender population. There were no significant differences of mortality rates in transgender males (Asscheman et al., 2011).

LONGITUDINAL STUDIES: THE EFFECT OF GCMI ON MENTAL HEALTH PROBLEMS

Overview of the Studies

Type of the Studies

We found 11 studies evaluating changes in mental health problems/disorders and symptoms following GCMI.

Population

All the longitudinal studies recruited transgender people attending transgender health services. Three of the studies assess people following cross-sex hormones treatment (CHT), six studies following gender-confirming genital surgery (GCGS), and two studies following both treatments.

Measurements

Except for two studies that describe mental health diagnoses using a validated, but short, semi-structured interview (Smith et al., 2001; Smith et al., 2005), the remaining 11 studies use validated questionnaires, such as the SCL-90.

Method

The strength of prospective longitudinal studies is that they compare the same subject before and after treatment. Some studies have compared people on CHT with people not on

CHT. As the subjects are not the same people, these studies are cross-sectional, but sometimes they appear to be longitudinal as they aim to explore the role of the GCMI. Studies that compare different cohorts of patients are only helpful in this regard when they are large, and well controlled for psychopathology and for known factors affecting psychopathology (Gómez-Gil et al., 2012; Gorin-Lazard et al., 2013; Fisher et al., 2014).

Outcome Definition

Most of the studies focussed on symptoms (and behaviours) more than on diagnosis due to the nature of the tools used. Because of this, we will not subdivide this section into three different groups. The information regarding follow-up time was recorded in all of the studies and ranged from six months (Udeze et al., 2008) to 13.3 years (Ruppín & Pfäfflin, 2015). The proportion of people that was lost during the follow-up period ranged from 0% (Colizzi et al., 2013; Colizzi et al., 2014) to 49.3% (Ruppín & Pfäfflin, 2015), the latter percentage being comparable to other follow-up studies of this kind.

STUDIES INVESTIGATING MENTAL HEALTH DISORDERS, SYMPTOMS AND BEHAVIOURS AT FOLLOW-UP

There is an overall agreement that psychiatric disorders, symptoms and specific behaviours such as self-harm, reduce considerably post GCMI and reach the same values as in the cisgender population (De Cuypere et al., 2006; Johansson et al., 2010; Pimenoff & Pfäfflin, 2011; Ruppín & Pfäfflin 2015; Smith et al., 2001). This is likely to be a response to the GCMI itself, although the effect of being validated and accepted for gender confirming medical treatment may also play an important role (Nuttbrock et al., 2011). Post-surgical long term follow-up in a transgender health service is often not available, partly due to the lack of clinical resources, compounded by long waiting lists. Undertaking long term follow-up studies is vital, but presents real challenges. It is costly and time consuming and focuses on transgender people who only seek medical treatment. It can also be argued that many people who transition successfully may simply disappear and ‘blend into’ our binary society, removing the transgender ‘label or marker’, with no wish or need for further input from transgender health services. Therefore, follow-up clinical services and studies may not always be feasible.

The aforementioned cross-sectional and longitudinal studies leave us with a mixed picture. They indicate that many mental health problems among the transgender population are associated with their gender incongruence and gender dysphoria (as a symptom). Treating the gender incongruence and gender dysphoria with cross-sex hormone treatment and gender-confirming surgeries for those who choose to, often reduces the incongruence and therefore the associated mental health problems. Unfortunately, we do not know whether this positive effect lasts. Looking at protective and risk factors of mental health problems in transgender people who are and are not receiving treatment may provide useful information. Understanding the protective and risk factors of mental health problems may help us to develop support structures and psychosocial interventions to prepare transgender people for a successful transition and life post transition and post GCMI. In the next section these factors will be discussed.

Protective and Risk Factors of Mental Health Problems among Transgender People: How to Prepare Transgender People for a Positive Life Ahead, the Role of the Professional, Family (of Choice) and the Transgender Person

There are very few studies that look at predictors of mental health problems among transgender people. The studies that do, tend to primarily focus on factors associated with mental health problems (disorders, symptoms or behaviours) at the time of the assessment at a transgender healthcare service and before GCMI. There are no studies that explore the protective and risk factors of the long term outcome following GCMI. These studies would be really helpful. However, in view of the lack of outcome studies, we need to look at the second-best available information, which, in this case, concerns information available from cross-sectional studies.

Protective Factors

Studies looking at protective factors found that social and parental support, full disclosure of transgender identity, good interpersonal skills, being in a relationship, and having completed medical transition are all associated with fewer mental health problems (Arcelus et al., 2016; Bandini et al., 2011; Bauer et al., 2015; Bazargan & Galvan, 2012; Bockting et al., 2013; Clements-Nolle et al., 2006; Gorin-Lazard et al., 2012; Weyers et al., 2009).

Risk Factors

When looking at gender differences there is an overall agreement within the literature that mental health problems are found to be more prevalent in transgender women than in transgender men, and more comparable to cisgender women than to cisgender men (Auer et al., 2013; Claes et al., 2015; Colton-Meier et al., 2013; De Cuypere et al., 1995; Landén et al., 1998; Lothstein, 1984; Duisin et al., 2014; Gómez-Gil et al., 2009; Hoshiai et al., 2010). Most longitudinal studies (with the exception of Johansson et al., 2010 and Pimenoff & Pfäfflin, 2011), which investigate the effects of GCMI, found mental health outcomes to be better for transgender men (Smith et al., 2005) and for those who were young upon assessment (De Cuypere et al., 2006). This finding could indicate that transgender women show a psychological and vulnerability profile for the development of certain mental health problems, such as depression and anxiety disorders, that resembles that of natal women (Auer et al., 2013). However, the increased levels of mental health problems in transgender women could also be explained (or compounded) by the higher risk of stigma and discrimination that is often experienced within this group. This, in turn may contribute to the interpersonal problems that make transgender women more hypersensitive to rejection (Davey et al., 2015; Simon et al., 2011).

Studies, looking exclusively at NSSI behaviour in the general population, have found NSSI to be associated with interpersonal problems and low levels of social support (Claes & Vandereycken, 2007). As expected, among the transgender population, this is no different, and victimisation (social stigma, discrimination, transphobia, sexual abuse, gender abuse),

poor interpersonal skills, difficulties accessing health care and social services, have also been linked to mental health disorders, particularly depression (Marshall et al., 2016). Furthermore, several studies have found that a younger age (< 25 years), depression, substance abuse history, and past history of sexual abuse are predictors of suicide among the transgender population, which is similar for cisgender people (for a review see Marshall et al., 2016). Predictive factors of NSSI were found to be related to being young, suffering from mental health problems and interpersonal problems. Among the young population in particular, poor interpersonal skills were found to be the main predictor of NSSI (Arcelus et al., 2016).

It is likely that protective and risk factors are interconnected, as they all highlight the importance of relationships, and good social support. This is not unique to transgender people, as positive relationships are generally found to be associated with good mental health. It is, therefore, paramount that clinicians working in transgender healthcare aim to increase social support for transgender people to facilitate transition and prevent mental health problems in the future. This is particularly important among this population, as transgender people are perceived to receive less social support from their family and friends than non-transgender siblings, and matched cisgender controls (Davey et al., 2014; Factor & Rothblum, 2007; Gooren et al., 2015; Kim et al., 2006; Simon et al., 2011).

CONCLUSION

The studies reviewed in this chapter show that the prevalence of mental health problems (primarily symptoms, and behaviour, such as NSSI and suicidality) in transgender people attending transgender health services is higher than in the general cisgender population. This primarily applies to people who are assessed before gender-confirming medical interventions occur. The rate of mental health disorders (which has been reported as high as 38%) is also high, but a direct comparison with matched cisgender controls does not exist. Longitudinal studies have concluded that gender-confirming medical intervention improves the mental health of the transgender person, and they reveal prevalence rates of mental health symptoms similar to the general population. Follow-up studies, allowing us to identify whether the mental health of transgender people benefits from GCMI over a long period of time, are lacking. The few studies looking at people who have received GCMI a long time ago suggest that they present with higher rates of mental health problems (including suicide) than the general population. However, caution is required when interpreting these results. Robust studies looking at risk and protective factors of GCMI outcomes are lacking. Research that looked at protective and risk factors of mental health problems, using a cross-sectional design, concludes that these factors are positively associated with social support, social acceptability and interpersonal skills. There is no guarantee that these factors will also be linked to protective and risk factors of GCMI outcomes (regarding mental health). Other factors, such as expectation of the treatment or personality characteristics, may also play a part. It goes without saying that a more tolerant society, which accepts and, ideally, champions diversity, will significantly improve the lives of transgender people. Moreover, as societies evolve and become more tolerant towards diversity, one would expect mental health problems in transgender people to decline. Increasing acceptability and social support, as well as access to transgender health services, that can offer GCMI and at the same time

prepare the transgender person for a successful transition, are vital, and will increase the quality of life for everybody.

LEARNING POINTS

- Mental health problems (including self-harm and suicidality) among non-treated transgender people attending transgender health services are higher compared to the cisgender population.
- The main mental health problems in the transgender population are related to mood and anxiety disorders.
- Rates of mental health problems reduce considerably following Gender Confirming Medical Interventions; for trans males to a level comparable with the male cisgender population.
- Risk factors of mental health problems are: being young, being a transgender woman, lacking social support and having poor interpersonal skills.
- Some of the risk factors are interrelated and strongly linked to society's acceptance and tolerance of diversity.

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Chapter 15

ACCESS TO CLINICAL SERVICES AND THE ROLE OF PRIMARY CARE

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OVERVIEW

Transgender people face barriers to healthcare. There is a paucity of resources and transgender people often face delays in treatment. Services need to be sensitive to the needs of transgender patients, and primary care and specialist transgender healthcare services need to work together to provide holistic care. Primary care has a particular role in considering the fertility needs of transgender people having physical treatments, such as hormones and surgery, as well as looking after the long-term physical, mental and sexual health of patients who have had such treatments.

INTRODUCTION

The language in relation to gender dysphoria, gender incongruence and transgender identities has evolved, and different communities may adopt different terms and usage. In order to engage effectively with people who are transgender, it is important for professionals to check how individuals identify themselves and to be aware that labels found in medical literature may no longer be appropriate to use with this group of people. *Transgender* is a term used to describe the diverse group of people who cross gender boundaries, including trans men and trans women, people who cross-dress and people with non-binary gender identities. *Trans* is a common self-identifying label. *Trans woman* is the preferred term relating to birth-assigned males whose identity is female. *Trans man* is the preferred term relating to birth-assigned females whose identity is male. Many trans people do not wish to be defined by being trans when it is not relevant, and simply wish to be identified as women and men. *Non-binary gender* is the state of identifying as neither a man nor a woman. A non-

binary person may identify as having aspects of both male and female, either at different times or both together, or they may identify as neither male nor female. *Cisgender* refers to individuals who are happy to remain the gender they were assigned at birth. Trans women have been referred to as 'male-to-female transsexuals,' or 'MtF,' and trans men as 'female-to-male transsexuals,' or 'FtM,' although these terms are generally not favoured as they suggest these people were men or women previously, whereas they may never have identified as such. *Sex* generally refers to the assignment of a person at birth as either male or female. *Gender* generally refers to social and psychological development and includes social gender role. *Gender identity* is the internal felt sense of gender. *Gender dysphoria* is the discomfort and distress caused by a mismatch between an individual's sex and their gender identity. It is both a descriptive term and a diagnostic term. It is important to remember that, for many people who are transgender, this will be a private matter for which they do not seek treatment. They may live wholly, or partly, in the gender of their identity, or they may, for various reasons, decide to live in their birth-assigned gender. They may, of course, access services for other issues, and it is important that all professionals have some awareness of transgender issues.

BRIEF HISTORY

Although many transgender people may not want, or seek, any treatment, doctors and psychologists have been treating transgender people for nearly one hundred years, with considerable advancements in this time. Dora-R of Germany was the first reported trans woman to undergo surgery between 1921 and 1930 and, in 1930, Lili Elbe of Denmark was the second.

Premarin was the first oestrogen preparation to be introduced in 1941 and, in 1948, Harry Benjamin began treating trans women with it. Testosterone also became available and was used to treat trans males. After the Second World War, penile reconstructive surgery was developed due to injuries faced by soldiers, and these techniques became available to trans men. As psychiatrists, psychologists, endocrinologists and surgeons became involved in the treatment of transgender people, the Harry Benjamin International Gender Dysphoria Association (HBIGDA) was formed, which published its first treatment guidelines in 1979. The organization is now termed the World Professional Association for Transgender Health (WPATH) and introduced the Standards of Care (SOC) version 7 in 2012 (Coleman et al., 2012). As transgender health has expanded worldwide, other continents and countries have set up their own professional organisations as 'chapters' under the umbrella of WPATH. These include EPATH (European), USPATH (United States), CPATH (Canadian) and ANZPATH (Australian and New Zealand). These organisations promote the health and well-being of transgender people by providing training and promoting and sharing research, as well as facilitating collaboration within a professional network in order to develop best practices.

DIAGNOSTIC ISSUES

There are debates around the medicalization of gender identity, and diagnoses associated with feeling that one has been assigned the wrong gender can be seen as pathologising. *Transsexualism* is the current diagnostic term in the International Classification of Diseases (ICD) version 10 (WHO, 1992) and *Gender Identity Disorder of Childhood* the diagnostic term for children. Transsexualism as a diagnostic category, which sits in the mental and behavioural disorders section of the ICD, is generally not favoured and is seen as stigmatizing by many transgender communities and a significant proportion of clinicians in the field. The American Psychiatric Association (APA) replaced their diagnostic term *Gender Identity Disorder* in the Diagnostic and Statistical Manual of Mental Disorders fourth version (DSM-IV) (APA, 1994) with *Gender Dysphoria* in the fifth edition, in recognition that it was no longer seen as a disorder (APA, 2013). Trans activists have called for the removal of gender dysphoria as a psychiatric or psychological diagnosis, arguing that it is harmful and stigmatising and does not fit current aetiological evidence. However, in the run up to the most recent revision of DSM - the DSM-5 – there was significant concern that declassifying transgender issues from the manual might negatively impact on the provision of services, such as medicine and surgery, by health insurance and taxpayer funded treatment. The APA has acknowledged that nonconformity to birth assigned gender is not, in and of itself, a mental disorder, but have retained the concept of distress as a core criterion for the diagnosis of Gender Dysphoria, which is the term used in DSM-5 (APA, 2013). They have broadened the diagnostic criteria to recognise those individuals who identify as other genders, other than male or female.

The WHO Working Group on the Classification of Sexual Disorders and Sexual Health has recommended a diagnostic change from *Transsexualism* to *Gender Incongruence* and removal from the section on mental and behavioural disorders in the forthcoming ICD-11 (Drescher, Cohen-Kettenis, & Winter, 2012). A separate chapter for Gender Incongruence has been recommended. Gender Incongruence is a diagnostic term, which is likely to be adopted by the forthcoming International Classification of Diseases (ICD) version 11 of the World Health Organization (WHO) (Drescher, Cohen-Kettenis, & Winter, 2012). It is inclusive of wide varieties of gender identity and expression and does not imply a particular treatment pathway - thereby encompassing those individuals who would not wish to pursue physical treatments. Concerns have been raised that this diagnostic category would encompass individuals for whom no diagnosis is needed, and that some sort of criterion for the distress that individuals experience is needed. These are clearly important issues, as current health insurance and tax-funded healthcare require a diagnosis to allow access to treatment. WPATH and APA have favoured the diagnostic category *Gender Dysphoria* (De Cuypere, Knudson, & Bockting, 2010) and Bouman and Richards (2013) have given a critical analysis of the use of the distress criterion in this context.

STANDARDS OF CARE AND BEST CLINICAL PRACTICE

Although being transgender is not to be seen as a mental illness or psychological issue, psychiatrists and psychologists have been involved in the assessment of transgender people,

and their role has been seen as critical from the publication of the first treatment guidelines in 1979 by the HBGDA. They focused on criteria for the selection of transgender people to undergo treatment with hormones and surgery to facilitate as complete a change as possible. Currently termed “WPATH Standards of Care,” and in version 7, they outline the role of the mental health practitioner in assessing, supporting and recommending hormonal and surgical treatments for transgender people, as appropriate. They recognise that the research and experience in this field comes mainly from North American and European countries, and that adaptation may need to be made for practice in other areas. It is now recognised within the standards of care that there is diversity in gender identity and expression, with some transgender people having a male or female identity, whilst others may have more of a trans identity. There is also increasing recognition of people with non-binary identities, who may also come forward for treatment. The emphasis has shifted to more individualised treatment to provide comfort with the gendered self, in order to improve overall health and well-being. This may mean different interventions, treatments and choices for different individuals, who should be given the information to enable them to make informed choices regarding their health, balancing the potential benefits and risks of treatment and employing harm reduction strategies where appropriate (For further reading see Chapter 16 about the WPATH Standards of Care by Fraser and Knudson).

ACCESSING SPECIALIST TRANSGENDER HEALTH SERVICES

The right to treatment for transgender people has been upheld by the European Court of Human Rights; e.g., in the case of *Van Kück v. Germany*, 2003, the court ruled that insurance plans should cover medically necessary treatments which included ‘gender reassignment surgery’ (ECHR, 2003). However, there is a lack of provision of specialist services; transgender people may have to travel long distances in order to access treatment and may face significant delays in treatment. There have been dramatic rises in the numbers of referrals to transgender health services in Europe and North America, and services across the world are similarly reporting greater numbers of transgender people coming forward for treatment. There are no clear training pathways for professionals wishing to specialise in the field, and there are shortages of surgeons, endocrinologists, speech and language therapists and mental health professionals, including psychiatrists, psychologists and psychotherapists, all of whom have a role in the care of transgender people as outlined in the WPATH standards of care. Whilst provision has grown, this has been outstripped by the increasing demand for services, inevitably leading to delays, frustration and distress. Furthermore, obtaining funding to perform the necessary research to improve the care of transgender people has been very difficult. Transgender people have been stigmatized and marginalised by society and this has included health professionals. They have been offered psychotherapies to try to change their gender, akin to reparative therapy for gay people, which have not only been ineffective, but also harmful. Many transgender people have had discriminatory responses from health professionals in the past and many have had difficulties accessing treatment for gender dysphoria if they did not conform to stereotypes, in terms of presentation and sexuality. Transgender people have been required to divorce and to undergo sterilization in order to receive medical treatments in the past. The level of scrutiny undergone by

transgender people, who are otherwise well, in order to access treatment, is unparalleled in other fields of healthcare. There is no surgery other than genital surgery for trans men and women and this requires the opinion of two mental health professionals to go ahead, which can be questioned as to its validity, although currently stands in the WPATH Standards of Care (Bouman et al., 2014). Whilst the treatment of transgender people has become more recognised and available, there may be anxiety, anger or frustration on the part of the transgender person, particularly when they may have waited years to access services.

THE ROLE OF PRIMARY CARE

General Issues

Trans people are usually required to present to general practitioners or primary care physicians before they can access specialist psychiatrists, psychologists, psychotherapists, endocrinologists, speech therapists and surgeons. The first disclosure to a health professional can be incredibly significant for the transgender patient, and it is important that health professionals have a basic understanding of transgender issues and know where to refer their transgender patients, if they require specialist treatment. Transgender people may present to a primary care physician having never before disclosed their true gender identity, but having undergone some physical treatments such as hormones and surgeries.

Significant numbers of trans people have reported feeling uncomfortable discussing their health needs with healthcare professionals, and others report having to educate them (Bradford et al., 2013). Many transgender people think that being transgender has adversely affected the way they have been treated by healthcare professionals (Whittle et al., 2007). Some transgender people may avoid or delay seeking help for medical problems as a result.

It is important to understand that routine examinations may be particularly distressing for a transgender person experiencing significant body dysphoria, and this will need to be managed sensitively. Undue attention should not be given to the transgender person's gender identity where it is not relevant to the healthcare need in question. If a transgender patient requires a physical examination, the General Practitioner needs to be aware that, for some people experiencing significant bodily dysphoria, this will be extremely difficult for the transgender person and will need to be handled sensitively. General Practitioners can affirm their patients' gender identities by acceptance of their stated identity and by the use of names and pronouns as requested by the patient. If the practitioner is in doubt, then it is respectful and helpful to ask the patient how they wish to be addressed and what pronouns they prefer. If the patient has made a formal change of name and gender, then their records need to be updated accordingly. For a transgender person seeking gender related treatments, it is likely that they will have been thinking about their gender and potential treatments for a considerable length of time. Many seek help at a time when they feel ready to move forward with treatment. Unnecessary delays at this point may damage the professional relationship and lead to distress and frustration. An individual General Practitioner or Primary Care Provider may have had no prior experience of treating a transgender patient. It is also quite likely that they have not had any specific training in this area. It is important that healthcare professionals do not rely unduly on their transgender patients for information, and

seek out information, training and support as required. General Practitioners are well placed to play a central role in the care of transgender people, taking into account their physical and mental health needs, as well as their specific gender-related health needs. Transgender people often prefer much of their treatment to take place within mainstream services in their local community, which is seen as less stigmatizing of the transgender person. As transgender people often have to travel some distance to access specialist services, being able to access care locally, when possible, will avoid unnecessary disruption to the transgender person's life. It should be remembered that many transgender people will undergo treatment that will need to be maintained for the rest of their lives, and many do not want to be attending specialist services long after their transition has been completed and want to be treated as ordinary men and women, rather than trans men and women.

Treatment of Mental Health Issues

Whilst being transgender is not a mental illness, and is not associated with major mental illness (Cole, O'Boyle, Emory & Meyer II, 1997; Hoshai et al., 2010; Mustanski, Garofalo & Emerson, 2010; Simon et al., 2011), transgender people may present with distress, self-harm, anxiety and depression, which is commonly related to marginalisation or minority stress (Haas et al., 2010; Mathy, 2003). There may be anxiety in relation to social gender role transition, disclosure to family, friends and work, as well as access to desired physical treatments. Mental health issues may need treatment with medication, such as antidepressants, or with psychological approaches. The latter are often best provided locally, through mainstream services, with general practitioners able to seek training and support from specialist services when necessary. However, it needs to be remembered that being transgender may not be the most relevant, or only factor, contributing to the mental health issues.

Self-Prescribed Hormones

Many transgender people approaching their General Practitioners may be self-prescribing with hormones obtained from various sources, including the Internet. Some transgender people are well researched, but many are unaware of the risks or of the appropriate preparations, doses and monitoring required (Mepham et al., 2014). They may not have given due consideration to issues such as loss of fertility and they may not be aware of the risks of hormone treatment. Whilst it may not be appropriate to monitor levels for self-prescribed medication, it may be appropriate to monitor for side-effects of self-prescribed hormones, so that the patient can be informed. Transgender people sometimes self-prescribe higher than required doses of hormones and increase the dose too quickly, which increases the risk of adverse effects and may lead to a poorer outcome. For example, increasing the levels of oestrogens too rapidly may result in less than optimal breast development (Seal et al., 2012). As hormone dosing is individual and based on blood monitoring, transgender people who self-prescribe are unable to accurately determine the doses of hormone they should be taking. They are unlikely to be able to obtain and self-administer certain injectable hormone treatments which may be the most appropriate for the patient, e.g., Nebido for trans men and

GnRH analogues ('testosterone blockers') for trans women, and they may use outdated preparations such as Ethinylestradiol, which has been shown to have a higher risk of thromboembolism, i.e., deep vein thrombosis (DVT) and pulmonary embolism (PE). The primary care practitioner may wish to consider a harm reduction approach, i.e., the provision of 'bridging hormones,' but may wish to discuss this with a specialist in the field. Trans women may request 5- α -reductase inhibitors, such as Finasteride, to stop permanent androgenic alopecia (male pattern baldness), and this is reasonable to consider.

Health Promotion

Smoking not only increases the risk of thromboembolism, i.e., deep vein thrombosis (DVT) and pulmonary embolism (PE) for patients taking oestrogens, it also increases the risk of polycythaemia (thickening of the blood) and stroke in patients taking testosterone therapy. Risks associated with gender related treatments are generally lower for those patients with a healthy weight and body mass index, as well as those that maintain a healthy lifestyle in terms of diet, exercise and substance use. The primary care practitioner can play an important role in health promotion and risk reduction.

Sexual Health and Fertility

Transgender people experience the full range of sexualities, just as cisgender people do, and assumptions should not be made about a person's sexuality based upon a person's gender identity. Transgender people may be reluctant to present with concerns around their sexual health, fearing misunderstanding, discrimination or heightened feelings of gender dysphoria. Globally, the experience of stigma and discrimination, high rates of sex work and high-risk sexual practices, such as unprotected anal sex, exposes many trans women to a greater risk of HIV. Following vaginoplasty surgery, trans women are required to dilate the vagina regularly for life. Healthcare services will need to consider how they support trans women who, for various medical reasons, may become unable to do this adequately for themselves. Some trans women may have difficulties with dilation and penetration by their partner post-operatively, sometimes several years after the surgery. Adapted sex therapy techniques can be used with good effect in some cases. There is a lack of research around the sexual health needs of transgender people, but it is an important area that needs addressing.

Fertility is a complex aspect of treatment, which needs careful attention (Richards & Seal, 2014). Transgender people may wish to consider storing gametes before commencing treatments, which will remove reproductive capacity, perhaps permanently. There needs to be understanding of the difficulty for some trans people of delaying treatment whilst considering fertility issues. However, this is a vitally important issue, as attitudes to having children can change, and not addressing the issue before treatment may lead to regret later. Although fertility may be regained if hormone treatment is stopped prior to surgeries that would remove reproductive capacity, this leads to re-emergence of previously suppressed gendered characteristics, which may cause distress. Transgender people are required by gender specialists to carefully consider loss of fertility before being recommended for hormone treatment and surgeries. The role of the General Practitioner will be to consider the practical

aspects of gamete storage with the transgender patient, and to facilitate the storage via a local fertility clinic referral.

SCREENING IN PRIMARY CARE FOR TRANSGENDER PEOPLE

Breast Cancer Screening

Trans women on feminising hormone treatment do not appear to be at significantly increased risk of breast cancer compared to men (Brown & Jones, 2015; Gooren et al., 2013), but there are case reports of breast cancer in trans women (Gooren et al., 2015), and, as more trans women are treated for longer and into old age, an increased risk could become apparent. In the cisgender population, the risk of breast cancer is increased in post-menopausal women on hormones and the risk is greater on the combined pill containing progesterone. We would, therefore, suggest that trans women should have routine mammography as per cisgender women after the age of fifty years. Evidence from cisgender women suggests that breast augmentation does not increase the risk of breast cancer (Bryant et al., 1995), but may make breast screening more difficult. In trans men there is no evidence of increased risk of breast cancer, although there are some case reports (Gooren et al., 2015) and, following chest surgery, there is a small amount of breast tissue left behind which may develop breast cancer. There is a need for trans men to be educated regarding this risk, although it is small. For trans men not undergoing top surgery, they need to have breast monitoring as per cisgender women. Asscheman et al. (2011) showed that there were no breast cancer deaths during the course of their cohort study of trans men and women with a median follow-up of 18.5 years, but did not examine non-fatal cancer cases.

Cervical Screening

Many trans men find cervical smears very traumatic, particularly if they do not engage in vaginal penetration. As there is no evidence of an increase in cervical cancer risk in trans men on testosterone (Asscheman et al., 2011), and the risk of cervical cancer is very low for cisgender women with no history of penile vaginal sex, it is reasonable to have a discussion with the trans male patient as to whether they wish to undergo cervical screening, given all the information regarding the relative risks.

Ovarian and Uterine Screening

There are case reports of ovarian and uterine cancer amongst trans men (Urban et al., 2011) and there is evidence to link ovarian and uterine cancers with androgens, but many trans men undergo hysterectomy and bilateral oophorectomy (removal of the ovaries) and the risk is, therefore, hard to quantify. Trans men, who have been on testosterone treatment but who do not wish to have a hysterectomy and oophorectomy, should be considered for monitoring, which may include an MRI scan or a transvaginal ultra sound scan, particularly if

there are other risk factors, such as a family history of ovarian and breast cancer, a history of polycystic ovary syndrome, increasing age over 50 years or smoking.

Prostate Screening

The risk of prostate cancer in trans women appears to be reduced with feminising hormone treatment, compared to men. Gooren, Giltay, and Bunck (2008) identified 3 cases out of 2236 trans women. Trans women, who have had genital surgery, retain their prostate gland. Although the risk is very low, trans women and their primary care practitioners should be aware that trans women can develop prostate cancer, albeit rarely, and that the risk increases over 50 years of age.

Cardiovascular Screening

Research suggests that feminising hormone treatment increases cardiovascular risk over time (Asscheman et al., 2011), particularly in trans women over 50 years of age and those who are smoking. The situation is less clear for trans men, but it is prudent that trans men are monitored, particularly if they have other risk factors or a history of cardiovascular disease. Blood pressure should be monitored periodically, and patients screened for hyperlipidaemia and diabetes before hormone treatment. All patients going onto hormone treatment should be advised to stop smoking and follow a healthy lifestyle.

Bone Density

Sex hormones are important in the maintenance of bone density and may need to be monitored by DEXA scans¹, particularly when there is inadequate hormone treatment in the presence of hormone suppression or gonadectomy, i.e., removal of the ovaries or testes. However, up to 16% of trans women present with osteoporosis before hormonal intervention (van Caenegem & T'Sjoen, 2015). This is likely to be related to life-style factors and other risk factors, including smoking, family history, lack of weight-bearing exercise, alcohol use and hypothyroidism. It is more common in Caucasian and Asian ethnicities. Calcium, vitamin D and bisphosphonates may be used to protect bone density in vulnerable individuals.

Prolactin

The risk of a raised prolactin level is increased in trans women on hormone treatment, as oestrogen stimulates the release of prolactin, which can result in hyperprolactinaemia and pituitary hypertrophy (Futterweit, 1998), although case reports of prolactinoma are rare. Regular blood monitoring is recommended.

¹ A DEXA scan is a special type of X-ray that measures bone mineral density (BMD). DEXA stands for “dual energy X-ray absorptiometry.” This type of scan may also be called: a DXA scan or a bone density scan.

Polycythaemia

This is a particular risk for trans men on injectable testosterone, when levels are too high. It can usually be managed by reducing the dose of testosterone but, in severe cases, may require venesection. Regular blood monitoring is recommended.

CONCLUSION

Transgender people face significant barriers to accessing high quality healthcare, both in relation to gender specific treatments and general healthcare. These relate to resource issues, as well as stigmatising and discriminatory responses from health professionals. Transgender people have specific, gender related healthcare needs, which need to be addressed. Specialist services and primary care services need to work together effectively to provide holistic care for transgender people.

LEARNING POINTS

- Not all transgender people access services and pursue physical treatments.
- Services need to be affirming and sensitive to the needs of transgender people.
- Many more transgender people are coming forward for treatment and services have issues of capacity.
- Unnecessary delays in accessing treatment are not helpful and co-occurring conditions, such as anxiety and depression, can be treated alongside gender dysphoria.
- Transgender people can have difficulties when accessing healthcare and have general healthcare needs.
- Primary care physicians are well placed to support transgender people with their general healthcare needs, in conjunction with specialist services.

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Chapter 16

THE WPATH STANDARDS OF CARE

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OVERVIEW

The Standards of Care (SOC) or “Standards” are flexible guidelines to provide safe and effective pathways for supporting the health of transsexual, transgender and gender nonconforming people, developed by World Professional Association for Transgender Health (WPATH). WPATH is the oldest international, interdisciplinary professional association devoted solely to the healthcare of transgender people. The aim of the guidelines is to provide recommendations regarding psychotherapeutic, endocrine or surgical interventions aimed at maximizing the overall psychological well-being and self-fulfillment of a transgender person. This chapter will firstly provide a brief history and evolution of the SOC, followed by a chapter-by-chapter summary of the SOC. The next section will describe the major changes in SOC 7, followed by a brief discussion about the myths, challenges and controversies occurring over the years regarding SOC. The chapter will conclude with the SOC 8 process, and future directions regarding Standards of Care for transsexual, transgender and gender nonconforming people.

INTRODUCTION

WPATH has produced 7 versions (1979, 1980, 1981, 1990, 1998, 2001, and 2012) of the SOC. The Standards of Care (SOC) have undergone revisions reflecting new evidence, and have shifted from a solely professional, consensus-derived document to a more evidence based one, and from a treatment-based sex-change model to one about overall health. The current SOC (see Figure 1) has 15 chapters, 22 pages of references, and 4 appendices, all summarized briefly in this chapter. Major changes in SOC7 include: a less paternalistic tone, a recognition that gender exists on a spectrum, less stringent criteria for medical

interventions, including an informed consent model, recognition of multiple options for treatment, a more flexible global approach and a statement that professional efforts to change gender identity are no longer considered ethical.

Challenges for the future include: staying current with the literature, maintaining global applicability, and balancing human rights with ethical practice. SOC8 is in progress, with a planned delivery date in 2018/2019.

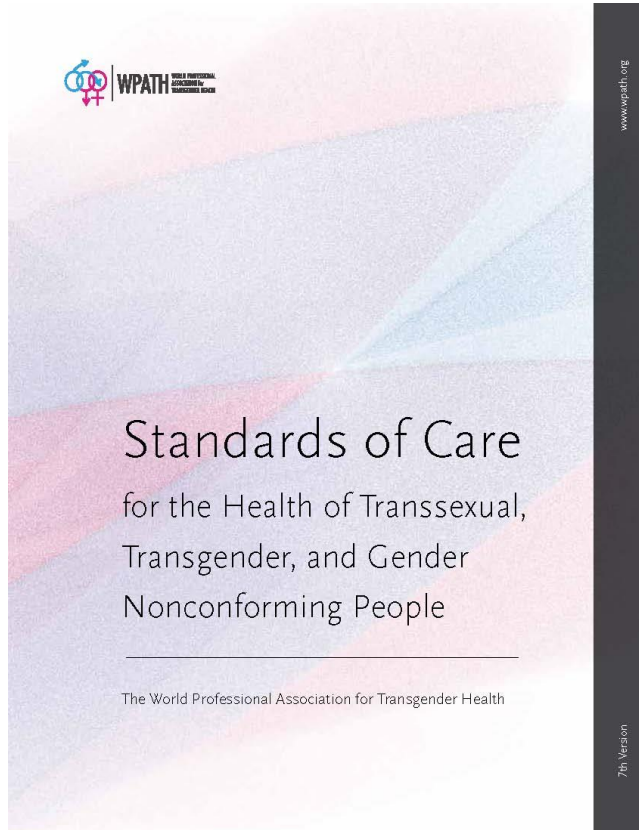


Figure 1. WPATH Standards of Care Version 7.

WHAT ARE STANDARDS OF CARE AND WHY ARE THEY NEEDED?

“A Standard of Care establishes a common protocol that an average, prudent provider should follow in a given setting, it provides a framework that can be used for legal purposes, advocating on behalf of the patient. A Standard of Care also promotes the use of a common language. A Standard of Care has an aim to ensure that clients/patients receive adequate and appropriate assessment, care and treatment for their condition. Finally, and probably most importantly, a Standard of Care protects the public from substandard and dangerous medical practices (Annas, 1997).

WPATH has produced Standards of Care (SOC) since 1979. SOC aims to outline the best treatment protocols for transsexual, transgender, and gender non-conforming people wanting to pursue medical transition. The overall goal of the SOC is to provide clinical guidance for

health professionals to assist transsexual, transgender, and gender nonconforming people with safe and effective pathways to help them to achieve lasting personal comfort with their gendered selves, in order to maximize their overall health, psychological well-being, and self-fulfillment (Coleman et al., 2012).

The World Professional Association for Transgender Health (WPATH) produces the Standards of Care for Transgender Health. WPATH is the only global multidisciplinary professional organization solely devoted to transgender health care. The mission of the organization is to promote evidence-based care, education, research, advocacy, public policy, and respect for transgender health. The vision of WPATH is to bring together diverse professionals dedicated to the development of best practices and supportive policies, worldwide, that promote health, research, education, respect, dignity, and equality for transgender and gender nonconforming people in all cultural settings (WPATH website, 2016). There have been seven versions of the SOC: in 1979, 1980, 1981, 1990, 1998, 2001, and the current version, SOC7, was published in 2012 (Coleman et al., 2012). The SOC were developed to meet the needs of multiple stakeholders in a rapidly changing climate. Initially written for health providers, the SOC are now used by providers, consumers of services, governmental bodies and other parties interested in staying current in the best practices in the field of transgender health.

BRIEF HISTORY AND EVOLUTION OF THE STANDARDS OF CARE

The original Standards were developed to protect transgender people from unscrupulous, predatory surgeons, and to help in establishing the legitimacy of gender-affirming treatment. WPATH was originally named the “Harry Benjamin International Gender Dysphoria Association” (HBIGDA) after the medical pioneer and endocrinologist Harry Benjamin MD, who was one of the first medical providers to legitimize the medical treatment of transsexualism (as it was known then). His groundbreaking book, “The Transsexual Phenomenon,” written in 1966 (Benjamin, 1966), described a range (including compassionate treatments) of trans conditions from what he called “true transsexuals” to transvestites. This spectrum of diversity of identities was then called the Benjamin Scale. Following his lead, a small group of inter- and multi-disciplinary physicians, mental health caregivers and other stakeholders came together at conferences between 1969 and 1977 to exchange information and support each other (WPATH website, 2016). Following these early meetings, a new association was developed (HBIGDA) and the first Standards of Care were written. This initial group incorporated HBIGDA and ratified the 1st Standards of Care at the 6th International Gender Dysphoria Symposium in San Diego, California in 1979 (Fraser, 2015a).

THE FIRST SOC

The first SOC, entitled, “The Standards of Care: The hormonal and surgical sex reassignment of gender dysphoric persons,” described the medical management of

transgender people and presumed a full transition from one binary gender to the other (the sex-change model) (Fraser, 2015b; Walker et al., 1985). They included criteria for transition, which consisted of one year of living in the experienced gender (known as the “life test” or real life experience (RLE)), and required psychotherapy before being referred for cross-sex hormone treatment and surgery. This progression was referred to as the “triadic sequence.” A referral from one professional was required for hormones, and referrals from two (doctoral level clinicians) were required for surgery. The Standards embraced a binary model of gender, and reflected the general science of the time, as well as narratives provided by clients presenting to transgender health care services. They generally echoed the nomenclature of the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM) and the World Health Organization’s International Classification of Diseases (ICD). Most of the guidelines were, nevertheless, developed via professional consensus, as there was limited research in the field. It is important to note that the early Standards used the term “gender dysphoria,” a name that was adopted as a descriptive and accurate label. Dysphoria was about the subjective distress of the mind/body mismatch. Starting in Version 5 (1998), the SOC used the term from DSM-III, “Gender Identity Disorder” (GID), only returning to the more value free, “gender dysphoria,” in the current Version 7. The term “Gender Dysphoria,” recommended by WPATH, is also used in the current DSM-5, rather than the earlier pathologizing GID diagnosis (APA, 2013; Fraser & Knudson, 2015; Knudson et al., 2010).

CHANGES IN APPROACH

Changes toward a more varied approach began in the 1900s, with the rise of a more vocal transgender community involvement and the beginnings of the Internet. The term “transgender” emerged as an umbrella term covering multiple gender identities. Versions 5 (1998) and 6 (2001) of SOC were named “The Standards of Care for Gender Identity Disorders,” reflecting these more varied identities, but also registering the pathologization of the condition. Version 6 offered more flexibility and individualized treatment than previous versions. The term “transgender” indicated an awareness of the shift away from stigmatizing language and the binary paradigm. The 10-year period prior to SOC 7 marked a major shift in the approach to transgender healthcare, summarized by a change from a focus on treatment to one of overall health and individualized care.

The Board of Directors proposed changing the name to WPATH in 2006, and the change was ratified by the membership in 2009. While the membership still revered Dr. Harry Benjamin, the Board wanted to move away from a focus on disease or disorder, towards a focus on positive health and well-being for transgender people.

The acronym WPATH stands for **W**orld (with an emphasis on the global membership) **P**rofessional (WPATH is an interdisciplinary group of professionals) **A**ssociation for **T**ransgender (indicating multiple gender identities) **H**ealth (moving from treatment to overall health). This period of 10 years was marked by rapid change, which was characterized by more of an emphasis on human rights, and WPATH followed suit. The literature began to normalize transgender people (Fraser, 2015b).

In 2010, the WPATH Board of Directors issued a press release and policy statement depathologizing gender variance worldwide. It states- *“the WPATH Board of Directors strongly urges the depsychopathologization of gender variance worldwide. The expression of gender characteristics, including identities that are not stereotypically associated with one’s assigned sex at birth is a common and culturally diverse phenomenon which should not be judged as inherently pathological or negative.”* (WPATH Website at www.wpath.org).

SOC 7 PROCESS

This version was written over a five-year period from 2006 to 2011. Carefully selected experts first wrote, subject-based position papers. Content areas covered were: epidemiology, cultural considerations, nomenclature, whether gender identity disorders (the language used at the time) are mental disorders, psychological assessment and approaches to treatment, hormonal and surgical approaches to treatment, and medical and therapeutic approaches to treatment. These authors covered the literature in their area of expertise and made recommendations about what should be retained from previous SOC and what should be added in this next version. These papers were peer reviewed and then published in the *International Journal of Transgenderism* (IJT) in 2010. A carefully selected international group of experts convened, in person, at meetings and, online, via a Google Site, and reviewed and discussed each potential chapter. Out of that larger group, a team of ten writers and a technical writer compiled the information from the larger group, including an international advisory group of community leaders and wrote the document, which was, once again, reviewed by the larger group (Coleman et al., 2012). The emergent document is thus consensus-based and, where possible, evidence-based, and it has multiple authors from twelve countries and fourteen disciplines. The SOC is 115 pages long with 265 references, compared to the 1st SOC, which is 8 pages long, has no references, and was written by basically one author, with input from a small group of other professionals. Moreover, SOC7 has numerous new chapters, and appendices.

SOC 7 CHAPTER-BY-CHAPTER SUMMARY

Purpose and Use

The purpose of producing the Standards of Care is to promote the highest standards of healthcare through an articulation of standards. The Standards of Care are based on the best available science and expert professional consensus. The purpose and use of the SOC 7 is to provide safe and effective pathways to achieving lasting personal comfort with the gendered self, in order to maximize overall health, promote psychological well-being, and self-fulfillment. These clinical guidelines allow for adaptations to fit unique circumstances. They acknowledge the role of making informed choices and the value of harm reduction approaches.

Global Applicability

The challenge is that most of the clinical and research experience and knowledge in the transgender healthcare field derives from Western European and North American sources. This means that the SOC reflect presumptions inherent in those environments and have never before acknowledged that differences might exist in other cultural settings. The Western European model, in particular, is historically homogenous and rigidly binary, based on 19th Century social models of “appropriate” behaviour for sexed bodies. This model migrated to North America, where it was imposed by European descendants upon indigenous people who had their own gender role adaptations and social places for gender-variant people who did not conform to the binary implied by genital differentiation. SOC 7 acknowledges cultural diversity and the importance of adaptation, recognizing that social attitudes, legal issues, access to care and the costs of treatments vary from place to place, and that there may be terms in English that are very difficult to translate into some other languages (Coleman et al., 2012). Hence, SOC 7 emphasizes specific principles, imploring translators to be aware of the underlying goals of treatment and to articulate culturally applicable guidance for reaching those goals.

The principles include: exhibit respect for all patients’ gender identities; provide care (or refer to knowledgeable colleagues) that affirms patients’ gender identities and reduces the distress of gender dysphoria, when present; become knowledgeable about the health care needs of transgender people; facilitate access to appropriate care; match the treatment approach to the specific needs of patients; offer continuity of care; and be prepared to support and advocate for patients within their families and communities (Coleman et al., 2012).

Difference between Gender Dysphoria and Gender Non Conforming

The SOC 7 stresses diversity and not pathology related to one’s gender identity.

The Depsychopathologization Statement issued by WPATH in May 2010 echoed this:

“The WPATH Board of Directors strongly urges the de-psychopathologization of gender variance worldwide. The expression of gender characteristics, including identities that are not stereotypically associated with one’s assigned sex at birth is a common and culturally-diverse human phenomenon which should not be judged as inherently pathological or negative. The psychopathologization of gender characteristics and identities reinforces or can prompt stigma, making prejudice and discrimination more likely, rendering transgender and transsexual people more vulnerable to social and legal marginalisation and exclusion, and increasing risks to mental and physical well-being. WPATH urges governmental and medical professional organizations to review their policies and practices to eliminate stigma toward gender-variant people.”

Source: Available at: <http://www.wpath.org>. Accessed October 01, 2016.

Epidemiology

The incidence and prevalence of gender dysphoria is difficult to measure. The focus of most studies lies in Western Europe and North America. The prevalence rates in a review of studies range from 1 to 11,900 to 45,000 for feminizing surgeries and 1 to 30, 400-200,000 for masculinizing surgeries, but these figures are likely to be under-reported. The limitations of epidemiological studies in this field are discussed in Chapter 2 of this book.

Overview of Therapeutic Approaches

With surgical advances in the second half of the twentieth century, masculinizing and feminizing chest/breast and genital surgery has become possible. The reported surgical outcomes have become more positive, as the surgical techniques have become more refined. Because of the number of surgeries performed, statistical analyses with sufficient power have demonstrated that medical transition (with cross-sex hormone treatment and gender affirming surgery) has produced statistically significant, positive outcomes, by reducing gender dysphoria and increasing people's quality of life.

Over the last five to ten years, there has been a move away from the binary model of gender identity to a model recognizing more diversity and a spectrum of identities in the developed world. This has led to more individualized treatment, with many possible outcomes in terms of gender expressions that promote increased comfort and well being with the patient/client's gendered self. Options for treatment have moved away from the triadic therapy model. There are more options in terms of social support and changes in gender expression.

Assessment and Treatment of Children and Adolescents

The study and treatment of children and adolescents is a controversial and evolving area. Some areas of study are more developed than others. Gender identity usually establishes itself at an early age. There are differences between children and adolescents, with children's gender identity the most fluid and variable. Persistence of gender dysphoria is much higher in adolescents than children. The sex ratio of children presenting for care is greater for those assigned male at birth than those assigned female at birth. However, this ratio changes to 1:1 for adolescents. The diagnosis and treatment of children and adolescents is more complicated than that of adults because of the developmental nature of identity development. In addition, the child and adolescent need to be treated within their family system, which may not be the case for adults. There are various options, possibilities and limitations of treatment. The SOC 7 cautions against encouragement of social transitions during childhood without careful assessment and working within the specific environment (family & school systems), to accommodate the child's gender expression. Further information about trans children and young people can be found in Chapters 5 and 6 of this book.

Statement Regarding Withholding Treatment:

“Refusing timely medical interventions for adolescents might prolong gender dysphoria and contribute to an appearance that could provoke abuse and stigmatization. Withholding puberty suppression and subsequent feminizing or masculinizing hormone therapy is not a neutral option for adolescents.”

Source: Coleman et al., 2012.

Statement Regarding Conversion Therapy:

“Treatment aimed at trying to change a person’s gender identity and expression to become more congruent with sex assigned at birth has been attempted in the past without success, particularly in the long term. Such treatment is no longer considered ethical.”

Source: Coleman et al., 2012.

Mental Health

The training of mental health professionals competent to work with transgender adults rests upon basic general clinical competence in the assessment, diagnosis, and treatment of mental health concerns. Clinical training may occur within any discipline that prepares mental health professionals for clinical practice, such as psychology, psychiatry, social work, mental health counselling, marriage and family therapy, nursing, or family medicine with specific training in behavioural health and counselling (Coleman et al., 2012). The role of the mental health professional is to assess and refer the client/patient, and to provide psychotherapy and other associated tasks. The mental health professional performs a psychosocial assessment, assesses gender dysphoria, and provides information around gender expression and medical interventions. They can also assess a patient’s eligibility for cross-sex hormones and surgery and refer to the appropriate professional. Although psychotherapy is no longer required, it remains recommended to ease the transition process. Other tasks associated with the mental health professional are to educate and advocate for the client/patient and to refer to peer support when available.

Hormone Therapy

This chapter of the SOC opens with an explanation of the medical necessity of hormone therapy and then goes on to describe the criteria for this treatment.

The criteria for hormone therapy according to SOC7 are as follows:

1. Persistent, well-documented gender dysphoria.
2. Capacity to make a fully informed decision and to consent for treatment.
3. Age of majority in a given country (if younger, follow the Standards of Care outlined in Chapter VI).

4. If significant medical or mental health concerns are present, they must be reasonably well controlled.

This chapter also reviews physical effects, risks, dosing and monitoring of the feminizing and masculinizing hormones. Furthermore, it describes clinical situations for hormone therapy, including initiation of hormone therapy, bridging, and hormone therapy maintenance, before and after gonad removal. Informed consent is a new topic in SOC 7, and this is described in relationship to the SOC. Finally, it reviews, in detail, the competencies of hormone prescribing clinicians as well as their responsibilities.

Reproductive Health

Previous versions have made little or no mention of reproductive options for transgender people. This version devotes a short chapter to this subject. The importance of discussing fertility with people about to commence cross-sex hormone therapy is stressed. People undergoing medical interventions (cross-sex hormone therapy and gonadectomy) must have the capacity to consent to treatment and fertility-preserving options must be explored (See also Chapter 11, Fertility Options in Transgender People).

Voice and Communication Therapy

There is a new chapter on voice and communication, along with a companion document. This chapter discusses the competencies required by clinicians in this area. It also describes assessment and treatment recommendations, as well as voice feminization surgery (See also Chapter 23, Voice, Speech and Language Therapy).

Surgery

The surgery chapter lists and describes the different masculinizing and feminizing surgeries available. It also includes a statement that gender affirming surgery is medically necessary.

The available surgeries for feminizing include:

1. Breast/chest surgery: augmentation mammoplasty (implants/lipofilling).
2. Genital surgery: penectomy, orchiectomy, vaginoplasty, clitoroplasty, vulvoplasty.
3. Non-genital, non-breast surgical interventions: facial feminization surgery, liposuction, lipofilling, voice surgery, thyroid cartilage reduction, gluteal augmentation (implants/lipofilling), hair reconstruction, and various aesthetic procedures.

The major masculinizing procedures include:

1. Breast/chest surgery: subcutaneous mastectomy, creation of a male chest.
2. Genital surgery: hysterectomy/ovariectomy, reconstruction of the fixed part of the urethra, which can be combined with a metoidioplasty or with a phalloplasty (employing a pedicled or free vascularized flap), vaginectomy, scrotoplasty, and implantation of erection and/or testicular prostheses.
3. Non-genital, non-breast surgical interventions: voice surgery (rare), liposuction, lipofilling, pectoral implants, and various aesthetic procedures.

The criteria for masculinizing and feminizing surgeries are found in the tables below:

Table 1. Criteria for Top Surgery

Criteria for Adults 1 letter	Hormone Therapy	Chest Surgery	Breast Augmentation ¹
Persistent, well-documented gender dysphoria	*	*	*
Capacity to make a fully informed decision and to consent for treatment	*	*	*
Age of majority in a given country	*	*	*
If significant medical or mental concerns are present, they must be reasonably well-controlled	*	*	*

¹Although not an explicit criterion, it is recommended that people undergo feminizing hormone therapy (minimum 12 months) prior to breast augmentation surgery. The purpose is to maximize breast growth in order to obtain better surgical (aesthetic) results.

Table 2. Criteria for Lower Surgery

Criteria for Adults 2 letters	Gonadectomy	Genital Surgery ¹
Persistent, well-documented gender dysphoria	*	*
Capacity to make a fully informed decision and to consent for treatment	*	*
Age of majority in a given country	*	*
If significant medical or mental concerns are present, they must be well-controlled	*	*
12 continuous months of hormone therapy, as appropriate to the patient's gender goals (unless the patient has a medical contraindication or is otherwise unable or unwilling to take hormones)	*	*
12 continuous months of living in a gender role that is congruent with their gender identity		*

¹Although not an explicit criterion, it is recommended that people also have regular visits with a mental health or other medical professional.

Postoperative Care and Follow-Up

This chapter stresses the importance of postoperative follow-up care with patients and offers continuity of care. It also recommends that post-operative patients undergo regular medical screening according to the guidelines for their age.

Lifelong Preventive and Primary Care

This chapter focuses on general preventative healthcare, cancer screening, and urogenital care. It stresses the importance of having a primary health care professional for overall health care needs.

Applicability of the Standards of Care to People Living in Institutional Environment

This chapter focuses on the application of the SOC to people living in institutions. They should be offered the same treatment opportunities as those living outside institutions. Housing, clothing and mental health needs must also be taken into consideration. Their treatment options should not be frozen until their release from the institution.

Applicability of the Standards of Care to People with Disorders of Sex Development (DSD)

This is a new topic area in the SOC. This chapter reviews the terminology related to the field of DSD. It then describes the health history considerations that must be taken into account when considering people with DSD. It reviews the assessment and treatment of people with a history of gender dysphoria combined with a background of DSD, and notes that most people with DSD do not experience gender dysphoria.

The Appendices include the following:

- A. Glossary
- B. Overview of Medical Risks of Hormone Therapy
- C. Summary of Criteria for Hormone Therapy and Surgeries
- D. Evidence for Clinical Outcomes of Therapeutic Approaches
- E. Development Process for the Standards of Care, Version 7.

MAJOR CHANGES IN SOC7

As described earlier, key changes in SOC7 include an increasingly evidence-based approach, as the field has evolved in knowledge and research. The document is much longer and was written by multiple experts who relied on ever-evolving knowledge, and an increased

emphasis on human rights, with a goal towards expanded access to care. The rise of the Internet allowed the voices of the community to be included in the process. Although still heavily Western-centric, more global voices can be heard. Another major change is a change of name, as described earlier, from the original “The Standards of Care – The hormonal and surgical sex-reassignment of gender dysphoric persons” (1979, 1980, 1981,1990) to “The Standards of Care for Gender Identity Disorders” (1998, 2001), to “The Standards of Care for the Health of Transsexual, Transgender and Gender Nonconforming People” in 2012. This is a major change from treatment involving a medical model, towards one advocating the overall healthcare of people who have a condition that is not now considered inherently pathological.

Another change in the SOC7 is the fact that, although it continues to be based on mental health initiation of care, the inclusion of an informed consent approach (at least for hormonal care) is consistent with an ethical standard. It was also felt that the informed consent model improves access to care, especially in poorly resourced areas. Moreover, SOC7 moved away from a binary model of gender towards a spectrum that includes multiple and diverse gender identities. This spectrum model, which is also included in the title of the document, reflects the new scientific understanding of gender.

SOC7 includes multiple options for transition, consistent with the general goal of psychotherapeutic, endocrine or surgical therapy aiming for lasting personal comfort with the gendered self, in order to maximize overall psychological well-being and self-fulfilment.

Another important change, consistent with evidence and a human rights approach, is the clearly stated position that, “therapies toward changing adult GI are no longer considered ethical.” Aside from these general statements, SOC7 posits key changes in criteria for the use hormones and surgery. Version 7 recommends more flexible and less stringent criteria, as described in the specific summaries of all the chapters in SOC7. For example, SOC7 no longer requires psychotherapy or a real life experience before referrals can be made for top surgery and cross-sex hormone treatment. For genital surgery, rather than living twelve months of successful, continuous, full time real-life experience in a binary gender role, the SOC now recommends that the person has lived continuously for at least twelve months in the gender role that is congruent with their gender identity. Both providers and clients alike have, almost universally, lauded these changes. WPATH has many new members in response, including human rights activist providers who had distrusted WPATH and earlier versions in the past. One member from the International Advisory Feedback Group summarized the new version in the following way:

“If I had to sum it up then it would be that whereas previous versions of the SOC were always perceived to be about the things that a trans person must do to satisfy clinicians, this version is much more clearly about every aspect of what clinicians ought to do in order to properly serve their clients. That is a truly radical reversal ... one that serves both parties very well.”

Christine Burns (WPATH International Advisory Google Site).

MYTHS, CHALLENGES AND CONTROVERSIES ASSOCIATED WITH THESE GUIDELINES OVER TIME

The Standards of Care have not been without myths, challenges and controversies over the years. There is no reason to suspect that these will not continue in future versions, although their evolution continues to be in a positive direction. Although the pioneers of the first SOC were actually trying to legitimize the field by creating standards and protect their patients from unscrupulous providers, the myth still prevails in some circles. Over the years, a tension continues between ethical practice and human rights. This tension is particularly true when working with children and young people given the lack of outcome studies in this group of patients. Studies that are available tend to come from the same European services, and follow only children who have gone through a very in-depth assessment process. The field of transgender health, in this particular area, remains fraught with controversy until more evidence-based outcome data is available. This same tension exists regarding best practices with people who have co-occurring conditions that could interfere with their ability to truly give informed consent.

Another challenge is for health providers to keep up with the latest evidence and research and evolving global models of practice. The field is rapidly evolving and even the current SOC is not up to date. Moreover, another challenge lies in making sure that the SOC is culturally competent, leaving room for flexibility in order to meet the needs of all users.

FUTURE DIRECTION AND NEXT STEPS

SOC8 is already in process and is following a similar sequence of development (described earlier) that worked so well in SOC7. This process includes invited papers, a large group of professionals, comprising the Revision Committee, to discuss what will be in the SOC, including new chapters. It also involves the discussion of controversies, and participation in meetings, face-to-face or online, in order to provide ongoing commentary, as part of the International Advisory group (IAG). The IAG will be comprised of community leaders, who will continue to have input from their communities and from trans providers. Finally, a small writing group will actually draft SOC8 and a technical writer will pull it all together. Literature review papers are currently being written that cover recent research and evolving models of care on criteria for surgery (Bouman et al., 2014; Colebunders et al., 2015). New topics will be added in order for the SOC8 to cover many issues and debates around a number of evolving areas such as: non-binary identities, criteria for surgeries, age of genital surgery for youth, competencies to write letters of support, elaboration of “informed consent,” management of psychiatric co-occurrence, and the global applicability of the SOC. Listening panels, conducted by senior members of the WPATH leadership, are being held at conferences such as the European Professional Association for Transgender Health (EPATH), the United States Professional Association for Transgender Health (USPATH) in 2017, and other WPATH Meetings around the world. The purpose of the listening panels is to incorporate ideas from the membership.

LEARNING POINTS

- WPATH is the oldest international interdisciplinary professional association devoted solely to the healthcare of transgender people.
- The Standards of Care (SOC), or “Standards,” are flexible guidelines to provide safe and effective pathways for the health of transsexual, transgender and gender nonconforming people, developed by the World Professional Association for Transgender Health (WPATH).
- WPATH has produced seven versions of the SOC.
- The most recent version (SOC7) was published in 2012 with SOC8 due in 2018/2019.
- The aim of the guidelines is to provide recommendations regarding psychotherapeutic, endocrine or surgical interventions aimed at maximizing the overall psychological well-being and self-fulfilment of a transgender person.

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Chapter 17

HORMONE TREATMENT FOR TRANSGENDER CHILDREN AND ADOLESCENTS: PUBERTY, BLOCKERS, SEX-HORMONES AND HELPING ME FIT MY TRUE GENDER IDENTITY

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OVERVIEW

This chapter gives a comprehensive description of the physical and hormonal aspects of puberty. Within the context of the hormonal aspects of gender role transition, hormone blockers are discussed, including what they do, how they are used and what the risks are. The chapter concludes with explaining the role of sex hormones (oestrogen and testosterone) during puberty and what the potential benefits and risks of its use are.

INTRODUCTION

What Is Puberty?

Puberty is the medical word we use to describe the physical changes that occur to the body in the teenage years. The word ‘adolescence’ generally has a much broader meaning, including changes to the mind, feelings, and lifestyle, and the gaining of independence as well.

What Happens in Puberty?

The sex glands make sex hormones under the control of the master gland in the body, the pituitary. In born females, the ovaries make oestrogen (or E) and, in born males, the testes

(testicles) make testosterone (or T). The sex hormones bring about the physical changes to the body and make the growth spurt happen.

What Are Hormones?

Hormones are the body's chemical messengers. They are made by organs of the body called endocrine glands and the hormone message is sent out through the blood stream, either specifically to another endocrine gland, or else as a general message to the whole body. Examples of this general message are the sex hormones, which help the whole body and mind to develop, and growth hormone which makes all parts of the body grow in proportion.

What Happens to a Girl in Puberty?

From about age 9, the ovaries begin to wake up and, from age 10, they start making tiny amounts of oestrogen. When this amount builds up more, a girl will begin to notice some breast development. This is usually just nipple growth to start with. The breasts will continue to grow for the next 2-3 years. The rate of height growth will also speed up, usually increasing to 8-9 cm over the year. Hair will develop in the pubic area and in the armpits. She will then start getting a girl's shaped hips.

When a girl is, on average, between 12 and 13, and when she has a lot more easily noticeable breast development, then periods will begin. Most of the growing will have been done by that stage, with only, on average, 5-7cm (2-3 inches) of height growth remaining.

Growth usually stops by 3 years after periods have started, which, in most girls, is by 16. The age ranges of normal development are quite wide. Breast development usually starts at any time between ages 8 and 13, and periods usually begin between 11 and 16 years. This wide age range includes early and late developers. Later developers may keep on growing until 18 or 19.

What Happens to a Boy in Puberty?

From about age 11, the testicles begin to grow and make small amounts of testosterone. Most boys don't notice this happening. Not much really obviously changes in a boy's body first of all. Maybe a little bit of pubic hair will appear, too. From around 13, which is about 2 years after puberty has started, the penis starts to grow more and the growth spurt begins. At that stage the voice begins to become a bit lower or croaky.

It's at about age 14 when a boy will grow very fast indeed, gaining 9-10 cm over the course of the year. After the fast growing year, on average at 15, more manly changes will be noticeable. The voice will fully break, moustache and whiskers will start growing, the gangly legs and arms will become more muscular, and the shoulders will get broader. It is important to note that these changes happen late on in male puberty - at least 3 or more years after starting puberty. In most boys this is in Year 11 or after. These changes don't occur quickly and certainly don't happen overnight.

Puberty usually starts between 9 and 14 years and finishes between 12 and 17 years. Boys' changes tend to be more obvious at a later age than girls', that's why girls look older than boys in the mid-teen years. Although most boys stop growing by 18, the male body and face shape will continue to develop, and it may not be fully man-like until the early 20s.

How Long Does It Take to Go Through Puberty?

It normally takes about 4-5 years, from start to finish, to develop full sexual maturity. Even so, body and mind development will still carry on taking place after puberty is complete, as the sex hormone levels build up in the body and continue their effect.

How Do You Know Where You Are in the Puberty Process?

Puberty is described in three *phases* (see Table 1.): *pre-puberty* before anything happens; *in-puberty* when things are beginning to happen; and *completing puberty* when the process finishes. It takes around four years from the start. The Tanner puberty stages system is a five-point scale where 1 is prepubertal and 5 is mature. Stage 2 defines the beginning of puberty. It requires an expert doctor to judge this, so using the *puberty phases* system is easier.

When Can a Girl Become Pregnant?

Although the start of periods means a girl's body is working like a woman, pregnancy is not likely for a year afterwards. However, this is not completely predictable.

When Can a Boy Get a Girl Pregnant?

The testicles begin making sperm right at the start of puberty. Testosterone develops the penis and prostate gland, so from about age 13 a boy can ejaculate. The full amount of sperm may not build up for another 2 years but it is possible for a boy to have sex and get a girl pregnant at any point in time from the beginning of puberty onwards.

HORMONE BLOCKERS

What Is the 'blocker'?

The blocker is a man-made copy of the hormone that turns puberty on. This natural hormone is made by the part of the brain called the *hypothalamus*. The copy, however, is slightly altered so that it lasts longer than the natural hormone signals. It has no other functions in the body, so

Table 1. The phases of puberty. Royal College of Paediatrics and Child Health (www.rcpch.ac.uk)

	Pre-puberty (Tanner stage 1)	In Puberty (Tanner stage 2-3)	Completing Puberty (Tanner stage 4-5)
Girls	If all of the following: No signs of pubertal development	If any of the following: Any breast enlargement, pubic or axillary hair	If all of the following: Started periods with signs of pubertal development
Boys	If all of the following: High voice No signs of pubertal development	If any of the following: Slight deepening of the voice Early pubic or axillary hair growth Enlargement of testes or penis	If any of the following: Voice fully broken Facial hair Adult size of penis with pubic and axillary hair

We don't expect other side-effects from blocker treatment. Its medical name is *triptorelin*.

How Does It Work?

The blocker jams the body's reproductive hormone system, preventing the pituitary gland sending out stimulation hormones to the sex glands. It, therefore, 'blocks' the body's natural puberty signals from getting through and puts the sex organs to sleep naturally. You need a lot of blocker around in the body for it to work properly, therefore, and it needs to be topped up regularly. You cannot overdose on it by having a bigger injection, or by bringing the timing of the injection forward if not convenient at the scheduled date.

How Is the Blocker Given?

It's an injection into the muscle on the leg or buttock, or just under the skin on the buttock or stomach wall. The frequency depends on the brand. They are the same hormone, just different amounts in the injection. Gonapeptyl is given every 4 weeks, Decapeptyl every 10-12 weeks.

Is it Harmful?

No. Side effects happen, generally, only because you are taking away the body's natural amount of sex hormone.

If I Come Off It, Will It Have Harmed My Body?

No, it is completely reversible, so all the workings of the body will return to normal, including fertility.

If I Come Off It, Will It Have Harmed My Mind and Feelings?

This is not likely, but the purpose of blocker treatment is to give you some space for thinking, and maybe, after the blocker treatment has finished, your way of feeling and thinking about things might have changed.

Does the Blocker Weaken My Bones?

Not directly. It slows the amount of calcium getting into your body. This is normally the job of the sex hormones, which, of course, are being blocked. The reduction, over the year on blocker, is usually small and recovers once cross-sex hormone treatment is started. Your bone health will be checked by blood tests and bone density scans (DEXA scans).

Does the Blocker Stop the Puberty Hormones Completely?

Yes, that's the aim, and blood tests and physical examinations (if needed) are done to check on that.

Does the Blocker Make the Changes of Puberty Go Away?

It depends on how far puberty has progressed. If someone has completed puberty, then it cannot reverse them, but periods will stop and breasts will be less full in someone assigned female at birth, making binding easier. In someone assigned male at birth, the penis and testicles will shrink to about half size, erections may occur less often and face and body hair growth will slow down, but the blocker won't stop it completely. Muscle development will be less.

Does the Blocker Stop Me Growing?

If you have finished your growth spurt, then it will be unlikely that there will be any change to your growth. If the blocker is started in someone much earlier on in puberty, it is likely that the blocker will stretch out the growing time, making height achieved as an adult taller. This may be an advantage in the female-to-male situation, but a tall person assigned male at birth may not want this increased height. The left hand and wrist X-ray (bone age) can be used to help assess this, and your endocrinologist can discuss this individually with you.

What Happens When I Stop Going Through Puberty?

The process doesn't go backwards. It just stays where it is. All the rest of the changes towards being an adult in the birth gender don't happen then. Sometimes sex characteristics, such as breasts and penis size, can shrink a bit, but this cannot be guaranteed.

What Happens to My Sex Glands?

Testicles are sperm factories, which only kick off at puberty. Making a sperm is a long process, taking up to two months, so it will take that time to close it down completely and get rid of any stored sperm. So, if someone wants to come off the blocker and allow sperm to be made, it can take that same length of time to start up again. Ovaries are very different. The eggs are already there at birth and normally just remain asleep during childhood. At puberty, some of the eggs are woken up, a few at a time, to produce oestrogen. Once the controlling pituitary hormones (the gonadotropins FSH and LH) get into a rhythm, one to two eggs are matured each month and released into the uterus (womb), in case conception occurs and a pregnancy ensues. If not, the lining of the womb is removed, resulting in the menstrual bleed. This monthly cycle process starts usually around ages 12-13 years (menarche), but can be stopped from happening by the blocker.

SEX HORMONES

What Are Sex Hormones?

Sex hormones are natural substances made in our bodies by the sex glands, the testes and ovaries. They develop the sex-specific characteristics during puberty and are important for maintaining these and our general health as adults. They are essential for normal fertility.

What Are the Treatment Sex Hormones?

These are manufactured copies of the natural hormones, slightly adjusted to be absorbed steadily into your body and thus work well, often for a few weeks at a time. They are replacing your own, blocked sex hormones with another one from the opposite sex (cross-sex hormone), and we will aim to get you up to the same level as whatever is right for your experienced gender.

Are Sex Hormones Drugs?

No, they are natural substances important for normal health, but the amount given has to be adjusted individually.

How Are Sex Hormones Given?

Testosterone, such as Sustanon, is generally given as an injection into your leg or buttock muscle every 2-4 weeks. The longer acting injection, Nebido, can be used once full testosterone levels have been built up in the body. That is given every 10-14 weeks. T can be given by a gel that is rubbed onto the chest, or stomach, or leg, or shoulder skin, each day. (Brands include Testogel, Testim or Tostran.)

Oestrogen is generally given as tablets of oestradiol valerate each day. Patches containing oestrogen, such as Evorel, can be used, which allow absorption of the oestrogen through the skin. They are worn under the clothes and are changed twice a week. They usually don't itch.

Endocrinologists will talk through the options with you and suggest which ones might suit you best.

Do Cross-Sex Hormones Make Natural Changes of Puberty Happen?

Oestrogen will usually produce very natural breast development in someone assigned male at birth, if carefully monitored by the endocrinologist. You will need to start slowly to help the breasts take on a natural shape. Overtreatment initially gives nipple overgrowth and an unsatisfactory, ugly appearance, which cannot be undone. Body fat will accumulate around the hips, giving them a pear-like shape. It cannot alter any bony changes to the face, hips or shoulders.

In someone assigned female at birth, testosterone will lower and deepen the voice, first of all. Leg and body hair will also develop. Facial hair growth does take longer – boys only get a moustache and whiskers three years into puberty. The amount of facial and body hair you eventually will get is dependent on family hair growth patterns. Developing your muscles will be much easier. Body fat distribution may change. The phallus or genital organ will also grow, and erections will become more frequent. However, it cannot grow to the same size as a penis of someone assigned male at birth. Surgical options to enhance the penis can be discussed.

Feelings and reactions change. Oestrogen usually makes people more sensitive and react in a more classically feminine way. Testosterone may make someone calmer and boost confidence, but too much too quickly can lower your mood. More aggressive reactions are usually associated with too much or too little. Testosterone produces a much stronger sex drive than oestrogen. The extent of mind and body changes from cross-sex hormones will be very individual, and this is an area where more research needs to be done (see Table 2. & 3.).

Do Cross-Sex Hormones Have Any Side Effects?

Careful monitoring by discussions, clinical examinations and blood tests are part of what is necessary to make treatment successful for each person as an individual, and to avoid the problems mentioned above. Don't forget that, by taking cross-sex hormones, you are getting the health benefits and risks associated with the opposite gender as well. Adopting a healthy lifestyle is important, too.

Table 2. What will testosterone do to me?

The potential benefits of this treatment include:

-
- Periods stopping
 - Deepening of the voice
 - Growth of facial and body hair
 - Changes in the distribution of body fat
 - Increase in sex drive and levels of energy
-

The potential risks and side effects of this treatment include:

-
- A likely loss of fertility
 - An increase in red blood cells with a potential increased risk of having a stroke (this is usual for males compared with females)
 - Changes in liver function tests
 - Higher cholesterol
 - Cancer of the lining of the womb
 - Osteoporosis, if treatment levels are too low or missed
 - Snoring (obstructive sleep apnoea)
-

If I Am Non-Binary, Do I Have Other Choices than the Blocker and Cross-Sex Hormones?

The monthly cycle can be stopped using the "pill" taken continuously, without the usual 7-day break, although experts do recommend allowing a bleed to happen once a year. The pill contains oestrogen in standard amounts, which is not what everyone wants. Monthly cycles can be halted by using a progestogen treatment. This prevents the lining of the womb from developing. The tablet forms do not block oestrogen from being made, but, in the long term, our bodies actually need some sex hormone present (oestradiol or testosterone) for our bone health and general health, so we can't keep well without some hormone around.

Partially blocking testosterone is more difficult. Diuretics, such as spironolactone, and progestogens, such as cyproterone acetate, can be successful, but the extent to which testosterone is lowered may depend on the dose of the anti-androgen used. The higher the dose, the more side effects happen. It is a tricky balance.

Can a Partial Transition Happen without Having to Get All the Changes Brought about by Sex Hormones?

Yes, as the effects of any hormone in the body depend on the amount present. The sex hormones, testosterone and oestradiol, do not affect gender identification directly. There are many cisgender people, with naturally low sex hormone levels in their body, who tend to complain of the side effects of these reduced concentrations. Low testosterone produces lower

energy, lower sex drive and sexual difficulties such as impotence. Hair grows less and people get more belly fat (middle aged spread). Low oestrogen can cause hot flushes. Mood variations, including depression and increased anxiety, are linked to both low and high sex hormone amounts.

Table 3. What will oestradiol (oestrogen) do to me?

The potential benefits of this treatment include:

-
- Breast growth
 - A reduction in facial and body hair and softening of the skin
 - Change in the distribution of body fat
 - More sensitive emotions
-

The potential risks and side effects of this treatment include:

-
- A likely loss of fertility
 - Some remaining risk of prostate cancer, post sex-reassignment surgery
 - Developing a clot in the leg or lung
 - Female level risk of breast cancer
 - High prolactin levels
 - Changes in liver function tests
 - A reduction in libido and erectile function
-

Can I Have Gender Affirming Surgery without Having to Take Hormone Blockers or Sex Hormones?

It depends whether the born sex glands are taken out or not. Mastectomy (breast removal) will not directly affect the natural production of sex hormones, whereas removal of the ovaries (ovariectomy), or testicles (orchidectomy), will. Lifelong sex hormone replacement will be needed afterwards.

LEARNING POINTS

- During puberty, sex hormones (oestrogens in girls and testosterone in boys) bring about the physical changes to the body and make the growth spurt happen.
- Puberty usually lasts 4 to 5 years and boys' physical changes tend to be more obvious only at a later age than girls'. That's why girls look older than boys in the mid-teen years.
- Hormone blockers are not harmful and are completely reversible. They are used to stop puberty and give some space (and time) for thinking about one's gender identity.

- Sex hormones are natural substances made in our bodies by the sex glands, the testes and ovaries. Testosterone is produced in the testes, and oestrogens in the ovaries.
- Cross-sex hormones give the health benefits and risks associated with the opposite gender.

FURTHER READING

Royal College of Paediatrics and Child Health (www.rcpch.ac.uk)

Gender Identity Development Service (www.gids.nhs.uk)

Chapter 18

HORMONE TREATMENT FOR TRANSGENDER ADULTS

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OVERVIEW

Hormone treatment results in the development of the secondary sexual characteristics of the desired gender. In transgender women, there is development of breast tissue, skin softening, reduction of body hair, decrease in muscle definition and an increase in body fat. There is also a decrease in genital size and function. In transgender men, there is an increase in facial hair and body hair, an increase in muscle definition and strength and a deepening of the voice. There is also an increase in genital size and cessation of menstruation. Hormone treatment can have side-effects. All hormone treatments decrease a person's fertility and the implications of this should be discussed with a transgender person before treatment is started. In transgender women, the main side effects are the development of clots in the blood vessels (thromboembolism or deep venous thrombosis (DVT)), raised prolactin and abnormal liver function. In transgender men, the main side-effects are an increased risk of cardiovascular disease (heart attacks and strokes), thick blood (polycythaemia) and abnormal liver function. Modern hormone treatments can be monitored by blood tests and this has resulted in safer treatments. Long term studies suggest that transgender men experience no impact on health from their hormone treatment. Transgender women, however, do have a slight increase in the risk of cardiovascular disease, but, with modern oestrogen treatment, this risk now seems to be much lower.

INTRODUCTION

Gender non-conformity can be accompanied by gender dysphoria, where being perceived by others as belonging to a gender different to the one you perceive yourself to be internally can cause distress (APA, 2013). The aim of cross-gender hormone treatment (testosterone treatment for a transgender man and oestrogen treatment for a transgender woman) is to suppress the production of the sex hormones of a person's assigned gender and to give them the hormones of the experienced gender, in order to produce the secondary sexual

characteristics of that experienced gender. If the person wishes, following hormonal treatment, surgery can be used to modify the genitalia and breasts to alter their appearance to that of the experienced gender, too. Following gender confirming genital surgery where the ovaries or testicles are removed, hormone treatment needs to be continued to prevent the complications of not having sex hormone production, such as osteoporosis (brittle bones) or early heart disease.

This chapter looks at the types of hormones used in transgender women and transgender men, their effects on the body, the side-effects a person may experience and, finally, a look at the long term outcome for transgender people treated with hormone therapy.

BIOLOGICAL THEORY OF GENDER IDENTITY DEVELOPMENT

The development of gender identity is a complex interplay of psychological, social, and physical influences, resulting in an internal and external expression of a person's gender.

Within the biological models of brain gender development it is recognised that there are differences in the structures of the brain between cisgender males and cisgender females (Seal, 2007; Swaab et al., 1993). When we look at animal models, these areas of the brain take up the male hormone, testosterone, and change it to the female hormone, oestradiol, which then changes the development of these brain areas so that, in the adult, cisgender male and cisgender female brains have a different structure (Hutchison, 1997). It is not just the shape of the brain than can be changed by hormones during a baby's development. It is recognised that, in animals, gender specific behavioural patterns, such as sexual behaviour, can be altered by the giving (Bloch & Mills, 1995; Bloch, Mills, & Gale, 1995) or taking away of testosterone (Diaz, Fleming, & Rhees, 1995; Rhees, Kirk, Sephton, & Lephart, 1997) during critical windows in development. Although the critical window in humans has not been established, we do know that there are two significant peaks in testosterone production in human male fetuses. The first occurs at 12-14 weeks of pregnancy (Reyes, Boroditsky, Winter, & Faiman, 1974; Tapanainen, Kellokumpu-Lehtinen, Pelliniemi, & Huhtaniemi, 1981) and the second peak is in the first three months after birth (Forest, de Peretti, & Bertrand, 1980). We think these have a role in brain development (Hutchison, 1997). Studies looking at the shape of the structures in the brain of transgender people (Zhou, Hofman, Gooren, & Swaab, 1995) and its function (Simon et al., 2013) suggest that the way the brain looks (the anatomy), and possibly functions, is more reflective of the person's gender identity (experienced or felt gender) as opposed to the assigned gender (phenotypic gender). With this model, if an assigned male has failure of testosterone action or production during the critical window for masculinisation of the brain, this would lead to feminine brain development. Conversely, exposure to high testosterone levels in an assigned female could result in masculinisation of a female foetal brain.

THE AIM OF HORMONE TREATMENT

The aim of treatment is to suppress the production of the sex hormones of a person's assigned gender (testosterone in a transgender woman and oestradiol in a transgender man)

and to introduce the hormones of the experienced or felt gender in order to produce the secondary sexual characteristics (way the body looks) of the experienced or felt gender. Following gender confirming genital surgery, hormone treatment needs to be continued to prevent the complications of not having sex hormone production, such as osteoporosis (brittle bones) or early heart disease.

PHYSICAL EFFECTS OF HORMONE REGIMENS

The study by Meyer in 1981 was the first to demonstrate the course of the physical changes that occur during cross-sex hormone therapy (Meyer et al., 1981). The physical changes are the same as in natural puberty. The development of breasts was complete by 18 to 24 months after the initiation of hormone therapy in transgender women but masculinisation in transgender men was slower, taking 4 to 5 years to complete, as it does in cisgender males.

The effects of cross-gender hormone treatment on the body are largely reversible. If a person stops hormone therapy, the body returns to the function of the assigned gender over 1-2 years. Some changes, however, may be permanent, such as the development of facial hair in a transgender man or breast development in a transgender woman and, so, cross-sex hormones should not be taken until a person is sure that hormone treatment is the right choice for them.

INITIATION OF TREATMENT

Hormonal therapy can be recommended by a gender specialist following a period of assessment by them. The assessment of adults with gender non-conformity is beyond the scope of this chapter, but the doctor prescribing hormones should be following the guidelines on how to treat people with gender non-conformity that have been published by both WPATH and the UK Good Practice Guidelines (Coleman et al., 2012; Wylie et al., 2014). This means that hormone use is best carried out in the context of a multidisciplinary team approach, so that the individual's psychological, social and physical health can be addressed as part of a holistic approach to treatment. It is important a person has realistic expectations of what changes can be achieved by hormone treatment. It is also important for the person to realise that hormone treatment is a part of the holistic treatment plan and not the end point. For the vast majority of transgender people, social gender role change and establishing themselves in their experienced social gender role is their goal.

TRANSGENDER WOMEN

Physical Effects

The changes in the body created by giving female hormone therapy to a transgender woman are the same changes that occur in a girl as she goes through puberty. The aim of

treatment is to give an increasing dose of oestrogen until the oestradiol levels of a young adult woman are achieved, over a period of 6 to 9 months (Seal, 2007). In addition to female hormones, a transgender woman will also be given hormones to reduce or counteract her natural production of testosterone. These are known as GnRH analogues (hormones that stop the production of testosterone) or anti-androgens (hormones that counteract the effects of testosterone).

Breast Development

The development of the breast begins about 2 to 3 months after the start of oestrogen treatment and the maximum effect of oestrogen on breast growth is not seen until 2 years of oestrogen therapy (Meyer et al., 1986). The average breast development is 14.5 ± 1.2 cm, which equates to a B cup brassier size, which is the average bra size in the UK. In the past, the use of large doses of oestrogen early in breast development led to a rapid growth of the breast, but premature termination of breast growth that left a person with small, conical breasts, stuck at a mid-puberty point (Seal, 2007). This is not such a problem with modern hormone regimens, but we must bear in mind that the programming for breast development that each person has, is set genetically. It is the genes which determine the breast's response to oestrogen stimulation. Unfortunately, hormone replacement cannot overcome a genetic programme for small breast development, which means that, despite optimal hormone replacement therapy, 60% of transgender women progress to breast augmentation surgery (Kanhai, Hage, Asscherman, & Mulder, 1999). If we look at the reasons why this happens, we can see that the type of oestrogen used for breast growth does not influence the final breast outcome (Wierckx, Gooren, & T'sjoen, 2014). The antiandrogen medication, Spironolactone, does, however, seem to increase the number of transgender women who need breast augmentation (Seal et al., 2012). Breast development is dependent on the build-up of fat in the breast, and encouraging an underweight person to gain some weight can result in enhanced breast growth. There are also differences in shape between the male and female rib cage, which cannot be changed by hormone therapy. This means that, even if the breasts reach their maximum growth potential, the breast contour can appear disproportionately small for the larger body frame of a transgender woman and she may need augmentation to make her breast contour fit her frame (Kanhai et al., 1999).

Skin and Hair

With oestrogen treatment, the skin texture becomes finer, and there is a reduction in the growth of facial hair. This effect is maximal after 4 months of treatment (Giltay & Gooren, 2000). Hormone therapy itself isn't adequate to control facial hair growth and local measures, such as electrolysis, waxing, shaving, sugaring or laser therapy, are needed to reduce the appearance of facial hair and facilitate female presentation. To help with reducing, there is a cream available in the UK, eflornithine (Vaniqa®), which can reduce facial hair growth. This medicine takes 6–8 weeks to have any effect and 24 weeks to reach its maximum action. It is, however, an adjunct to other measures and, in transgender women, there is no study to

suggest it can be used instead of laser or electrolysis to permanently reduce facial or body hair.

Hair loss, or male pattern baldness, also slows and stabilises as plasma testosterone levels fall in response to oestrogen treatment. However, regrowth of hair, once it is lost, does not occur. The only medication that has been shown to regrow hair where it has been lost is Minoxidil (Regaine®) (Bergfeld et al., 2016; Blume-Peytavi et al., 2016). Despite its efficacy, it often does not have an impact on the cosmetic appearance of the hair loss (Gupta & Charrette, 2015), which means that other measures, such as wearing a hair piece, hair transplant, or using a wig, may be needed.

Agents, such as the 5-alpha-reductase inhibitor, finasteride, which stop the activation of testosterone to the more potent dihydrotestosterone, can also be used to reduce facial and body hair. It also has an action which stabilises scalp hair loss (Seal, 2016). Other anti-androgens, such as cyproterone acetate and spironolactone, can have similar effects, but there are issues with the use of these medicines that are discussed in the section, Additional Treatments.

Body Shape

The body composition changes and there is an average of 3.8 kg weight gain, with a 38% increase in skin fat deposits (Elbers et al., 2003). This fat is mainly centred on the hips and buttocks, giving a more female fat distribution. There is, at the same time, a decrease in muscle mass (Elbers et al., 2003).

Genital Changes and Fertility

Oestrogen therapy in transgender women leads to a reduction in sex drive (libido) and penile function, with a decrease in the number of erections that occur in the morning (spontaneous erections) and the strength of an erection when a person is aroused (sexual erections). In transgender women, this is often seen as a positive outcome of treatment. Due to the reduction of production of the hormones that control testicular function by the pituitary gland, the testicles decrease in size (Meyer et al., 1986). Sperm production is also reduced (Lübbert, Leo-Rossberg, & Hammerstein, 1992; Schulze, 1988). Before a person is started on hormone treatment, the impact of therapy on fertility should be discussed. If fertility is desired in the future, options such as sperm storage should be discussed (Hembree et al., 2009; Richards & Seal, 2014; Wylie et al., 2013). Although sperm production is decreased by hormone treatment, it cannot be guaranteed that a person will have zero sperm production and, if they have a female bodied partner, contraception should be discussed and appropriate contraceptive measures used.

Mood and Cognition (Thinking)

Hormone treatment has a powerful effect on thought processes. Oestrogen therapy has mood-changing effects in cisgender women around the menopause. It increases feelings of

well-being and decreases depression scores (Morgan, Cook, Rapkin, & Leuchter, 2005; Onalan et al., 2005). In the same way, transgender women using oestrogen therapy generally find a positive effect on their mood (Gómez-Gil et al., 2012; Miles, Green, & Hines, 2006). Anecdotally, many transgender women on oestrogen therapy report an increased feeling of femininity and a calmer mood.

NEGATIVE EFFECTS OF HORMONE TREATMENT (SIDE-EFFECTS)

The Effects of Oestrogen Therapy on Blood Clotting

The major side-effect of oestrogen treatment is the formation of clots in the blood vessels, which is called venous thromboembolism (VTE). There has been a great improvement in how often this happens, as we have found out more about the types and doses of the hormones we use. In the original study by Asscheman in 1989, there was a 45-fold increase risk of VTE when using ethinylestradiol (the type of oestrogen in the contraceptive pill) and cyproterone acetate (Androcur). This rate was very high and there was a clear age-related effect. Women over 40 years old were found to have a deep venous thrombosis (DVT) (clot in the legs) at a rate of 12%, and those under 40 only 2.1% (Asscheman, Gooren, & Eklund, 1989). When people started to look into why oestrogen increased the risk of clots, they found that oestrogen treatment changes the chemicals in the blood so that the blood is more sticky (Toorians et al., 2003). They found that if you give oestradiol via a patch, rather than ethinylestradiol by a tablet, the stickiness of the blood is much less (Toorians et al., 2003). People assumed from this study that it was the way you gave the oestrogen that was important in reducing VTE risk, so the clinic where the author of this paper is based began a policy of using transdermal (through the skin, such as patches or gels) oestrogen after the age of 45 years. Since then, the incidence of DVT in their clinic population has reduced from a 40-fold to a 20-fold increased risk. This gives a VTE rate of 2.6% (van Kesteren, Asscheman, Megens, & Gooren, 1997). Most clots happened in the first two years of treatment, but there was an ongoing risk of 0.4% per year (van Kesteren et al., 1997). Newer studies in the UK, using more modern oestrogen tablets containing oestradiol but not ethinylestradiol, have shown very good DVT rates at 0.6% for those treated with oral oestradiol (Seal et al., 2012). This study also showed that people using the oestrogen preparation called conjugated equine estrogens (CCE, Premarin®) were 8 times more likely to have a DVT than those taking oestradiol tablets (Seal et al., 2012). This later study would suggest that it is the type of oestrogen that is used, rather than the way it is given, which is important in deciding just how likely it is that oestrogen treatment can lead to a DVT in transgender women (Seal et al., 2012). In the UK, most of the large transgender health clinics now use a combination of oestradiol with a GnRH analogue for feminisation in transgender women (Ahmad et al., 2013). Lifestyle factors can also influence the risk of VTE in someone taking oestrogen. We know, from studies of cisgender women taking the contraceptive pill, that the incidence of VTE is increased in smokers by approximately two-fold (Pomp, Rosendaal, & Doggen, 2008), and, in obesity, this risk increases to 9-fold (Pomp et al., 2008). In the UK, the treatment protocol used by the majority of transgender health clinics relies on people stopping

smoking before high doses of oestrogen are given, in order to minimise the risk of VTE in the transgender women they treat (Ahmad et al., 2013).

High Prolactin (Hyperprolactinaemia)

Prolactin is a hormone made by a small gland that sits just below the brain, called the pituitary gland. Prolactin is the hormone that, after pregnancy, causes the production of milk in the breast. The cells that make prolactin release this hormone and also grow when they are exposed to the high levels of oestrogen that are seen in pregnancy. The symptoms of having high prolactin include milk production (lactation), headaches, reduced sex drive (libido) and difficulty with getting an erection if the penis is present (erectile dysfunction). When oestrogen treatment is given, blood prolactin levels can increase and this has been observed in up to 15% of transgender women (Futterweit, 1998). A more representative figure for high prolactin levels in transgender women taking oestrogen is 3.7 to 7.2% per treatment year (Asscheman, Gooren, Assies, Smits, & de Slegte, 1988). In these studies, however, oestrogen was used in combination with cyproterone acetate, which may also increase prolactin levels (Futterweit, 1998; van Kesteren et al., 1997). A more recent study suggested that, with newer hormone regimens using oestradiol and GnRH analogues, the incidence of high prolactin levels was 2.3% (Seal et al., 2012). Very high levels of oestrogen increase the chance of prolactin levels rising, which is one of the reasons why we keep the oestradiol level at the normal range for an adult cisgender female and not higher (van Kesteren et al., 1997). There have been cases where the prolactin producing cells grow and form a tumour called a prolactinoma. Although these tumours are not cancers, they can affect the way that the rest of the pituitary gland works, which will affect the function of the hormones in the body (Cunha et al., 2014; García-Malpartida, Martín-Gorgojo, Rocha, Gómez-Balaguer, & Hernández-Mijares, 2010; Gooren, Assies, Asscheman, de Slegte, & van Kessel, 1988; Serri, Noiseux, Robert, & Hardy, 1996). The development of prolactinomas seems to be seen mainly in those people who self-medicate using high dose oestrogen preparations, such as via injection (Gooren et al., 1988).

Liver Function

Oestrogen treatment can result in an abnormal liver function. The pattern of liver changes is known as an obstructive pattern of liver dysfunction. This term is used as the pattern of changes of the chemicals in the blood causes an effect whereby waste products from the liver cannot get into the bowel, where they should be, but stay in the blood stream (Adlercreutz, 1966; Card, Sneddon, & Talbot, 1966). The liver function disturbance is usually mild and, using oestrogen preparations given through the skin rather than tablets, or reducing the dose of oestrogen, is normally all that is needed (Seal, 2007). In the largest trial published so far, 4.3% of subjects had a temporary increase in liver enzymes, but, in all cases, this was mild and no one needed to stop their treatment. Another study suggests that there was not a problem with increased liver function in their patients (Seal et al., 2012). Oestrogen treatment in transgender women increases the risk of gallstones by 5 times (van Kesteren et al., 1997).

Cholesterol

Oestrogen therapy in transgender women does not have an effect on cholesterol levels. (Elamin et al., 2010). This is surprising, because oestrogen in cisgender females increases the levels of the good cholesterol, HDL-cholesterol. Pure fat levels (Triglycerides) do, however, increase slightly in transgender women taking oestrogen. Therefore, it is advised to have a healthy diet while undergoing oestrogen treatment.

Osteoporosis (Thin Bones)

The amount of calcium in the bones is controlled by the sex-steroid hormones, oestradiol in a female and testosterone in a male. Cisgender males generally have thicker and stronger bones than cisgender females. People have worried that, if testosterone levels are reduced during a transgender woman's treatment, their bones may become thin. Most studies in transgender women reassuringly show that oestrogen therapy can keep the bones strong, even though the amount of testosterone in the blood stream is lower (Dittrich et al., 2005; Lips, Asscheman, Uitewaal, Netelenbos, & Gooren, 1989; Mueller et al., 2011; van Kesteren, Lips, Gooren, Asscheman, & Megens, 1998). One group, however, has shown that a decrease in bone area and mineral content in transgender women was associated with a lower amount of exercise performance in these individuals (Lapauw et al., 2008), and so transgender women should be encouraged to maintain a good exercise programme to have healthy bones. It has also been shown recently that many transgender people are low in the hormone Vitamin D (Seal, Middleton, & Barrett, 2015). This is one of the hormones that are important in getting calcium into the body and then into the bones. If a transgender woman has low Vitamin D, she should have this replaced.

Cancer Risks

The use of oestrogen treatment in cisgender females is associated with a slightly increased risk of developing breast cancer. This risk is about 3.2/1000 aged 50 to 59 years and 4/1000 aged 60 to 69 (Beral, Banks, & Reeves, 2002). It is also known that, when using oestrogen with progesterone, this risk increases when compared with using oestrogen on its own (Hulley et al., 1998; Rossouw et al., 2002). There have only been seven case reports of breast tumours occurring in transgender women, suggesting that the risk of breast cancer caused by feminising hormone therapy is very low (Brown & Jones, 2015; Pattison & McLaren, 2013). It appears that the incidence of breast cancer is the same as the background rate of breast cancer in cisgender males. This evidence would suggest that oestrogen therapy does not increase breast cancer risk in transgender women (Brown & Jones, 2015; Gooren, van Trotsenburg, Giltay, & van Diest, 2013).

Progesterone is not involved in normal pubertal breast development. It has not been shown to help breast development (Gooren et al., 2013), but there is evidence that it may increase breast cancer risk in cisgender females. Some units do use progestins routinely as part of their hormonal regimen, but there have been no studies looking at the effects of progestins on cancer risks in transgender women. Their use for the feminisation of

transgender women has to be seriously questioned, as these medicines do not improve breast development and may lead to an increase in the complications of hormone replacement therapy (HRT). Prostate cancer is a very common tumour with an incidence of up to 50% of the population by 80 years old (Sánchez-Chapado, Olmedilla, Cabeza, Donat, & Ruiz, 2003). At the present time, there are only four cases of prostate cancer in transgender women reported in world literature (Barqawi & Crawford, 2006; Dorff, Shazer, Nepomuceno, & Tucker, 2007; Gooren & Morgentaler, 2013; Turo, Jallad, Prescott, & Cross, 2013), which means that the incidence of prostate cancer in transgender women is extremely low. It is estimated to occur in about of 0.04% of this population (Gooren & Morgentaler, 2013). This is likely to be due to the fact that transsexual women have very low testosterone levels. Although the risk of developing cancers that could be related to hormone treatment is low, we recommend that transgender women have cancer screening in line with national guidelines. For breast cancer in the United Kingdom (UK), mammograms are commenced from the age of 50 and are carried out every 3 years. For prostate cancer there is currently no screening programme in the UK.

Additional Treatments

Progesterone is used by some centres and is widely purported by self-help trans websites to improve breast development. In the large European centres, progestins are not used. Progesterone is not produced by a girl during puberty. She does not make that until the ovaries start producing eggs and, by that time, breast development is completed. Indeed, progesterone reverses the cell growth that oestrogen causes (Melmed & Williams, 2011). A recent summary study (meta-analysis) looking at breast development in transgender women, showed that using progesterone and oestrogen does not give better breast development than using oestrogen on its own (Wierckx et al., 2014). As we discussed earlier, the big HRT trials in cisgender females suggest that progesterone, in combination with oestrogen, may increase the incidence of breast cancer, but it also increases the risk of heart attacks and strokes (Hulley et al., 1998; Rossouw et al., 2002). These risks were not seen in the oestrogen-only arm of these trials, suggesting that progesterone is not good for both cardiovascular and breast health (Hulley et al., 1998; Rossouw et al., 2002). The use of progesterone in transgender women is, therefore, questionable and in UK practice it is almost never used. Anti-androgen therapy, as either cyproterone acetate or Spironolactone, is used by some centres but, generally, not in the UK. Anti-androgens fight against the testosterone that is produced in the body. Finasteride, which stops testosterone becoming its more active form (dihydrotestosterone), is used.

Cyproterone acetate is a progesterone derivative and is metabolised in the liver. It blocks the action of testosterone by stopping the hormone from binding to the cells of the body. It also decreases the production of the hormones that come from the pituitary gland and which normally increase the production of testosterone. Its use is associated with abnormal liver function and a person must have regular monitoring of the liver function if they are taking this medicine (Frey & Aakvaag, 1981; Willemse et al., 1988; Ylöstalo, Laakso, Viinikka, Ylikorkala, & Vihko, 1981). As it is a progestin, it may be associated with the effects seen with progesterone use that we have just discussed. More importantly, in transgender women, depression is commonly seen (up to 60% of people) (Seal et al., 2012) and the use of

cypoterone is associated with depression (Frey & Aakvaag, 1981; Seal et al., 2012). There have also been reports of the development of a type of tumour called a meningioma, when people use a high dose of cypoterone acetate (Gil et al., 2011). This is a tumour of the lining of the skull and can press on the underlying brain tissue.

Finasteride is a medicine that stops testosterone being converted to a more potent form (dihydrotestosterone) by the enzyme 5-alpha-reductase. Finasteride inhibits this enzyme. It decreases the amount of hair on the body and slows the growth of facial hair. It can also stabilise the loss of scalp hair caused by high testosterone levels and, at the dose used in transgender women, can decrease sexual function (Seal, 2016). The same spectrum of side-effects occurs with the use of finasteride; both depression and liver function disturbance have been described as side-effects of this drug (Altomare & Capella, 2002; Ciotta et al., 1995). Although depression is not as prominent when compared with the effect of cypoterone acetate in transgender women (Seal et al., 2012).

Spironolactone is a drug that is used to lower blood pressure, but it also blocks the effect of testosterone on the cells of the body. It also binds to the oestrogen receptor and acts like a weak oestrogen in the body. It lowers blood pressure by changing the way that salt is removed by the kidney. However, it can lead to high potassium levels in the blood stream (hyperkalaemia), as well as kidney damage (renal failure). It can also cause liver problems. Worryingly, there have been reports of Spironolactone use being associated with bleeding from the gut (Gulmez et al., 2008). An important side-effect in transgender women is that it may reduce the effectiveness of hormone therapy, because transgender women who have used spironolactone are more likely to need breast augmentation than those that do not (Seal et al., 2012).

Anti-androgens were necessary in the past, because many people did not reduce their testosterone levels when using oestrogen on its own. Now, instead of a person making testosterone and taking medicines that stop it working, we can give a medicine to stop the testicles making testosterone in the first place. This medicine is called Gonadotrophin Releasing Hormone analogues (GnRH analogues). It works by over stimulating the cells in the pituitary gland that control the reproductive organs. When these cells are over simulated, they “go to sleep” and stop working. This stops the testicles producing testosterone and sperm. There has been extensive experience in using these drugs, both in the treatment of prostate cancer and infertility, and they have an excellent side-effect profile. The use in the hormonal treatment of transgender women appears safe, with minimal side-effects. The usual side-effects of hot flushes and tiredness do not happen because transgender women are taking oestrogen to replace their testosterone (Dittrich et al., 2005; Seal et al., 2012). The reduction in bone mineral content does not happen because of the oestrogen treatment, too (Dittrich et al., 2005).

HORMONE PROTOCOLS

There are many different hormonal regimens used for cross-gender sex steroid therapy. Below is an outline of the protocol used at the largest United Kingdom clinics (see Table 1.).

TRANSGENDER WOMEN

The standard hormonal regimen uses estradiol valerate, or hemihydrate, which can be measured in the blood. The aim is to achieve an oestradiol level which is the same as a young cisgender female (400 to 600 pmol/L), by increasing the doses over 6-12 months until the correct level is achieved or to a maximum of 10mg/day (Seal et al., 2012). If oral oestrogen therapy does not result in good oestradiol levels, then gel or patch treatment is used. The monitoring regimen for oestrogen therapy is outlined in Table 1. If a synthetic oestrogen, such as ethinylestradiol or conjugated equine estrogen (CEE or premarin©) is used, then hormonal monitoring cannot be used to guide the treatment. If oestrogen therapy does not suppress testosterone levels to the female range (<3 nmol/L), then GnRH analogues are used to suppress testicular function until the testicles are removed.

Table 1. A list of the oestrogen preparations commonly used in UK practice and how they are monitored (Seal, 2007)

Preparation	Dose	Frequency	Monitoring Method	Test Timing
Tablets Estradiol Valerate: Or Hemihydrate:	1mg and 2mg	Take all at same time	400 – 600pmol/L	Bloods four hours after taking tablets
Patches: Estradiol	50mcg – 200mcg	Change patch/es twice a week	As above	Bloods after 48 hours and prior to the new patch (same day)
Topical Gel:	0.5mg to 5mg sachets	Apply to anywhere on body except breasts	As above	Bloods 4 – 6 hours after application and no gel on the arms
Implants Oestrogen Implant	50-100mg	6-24monthly	Trough value of 400-500pmol/l	5 months after implant then repeated monthly

TRANSGENDER MEN

The masculinisation of a transgender man is achieved by giving the male hormone testosterone. The physical changes that occur follow a male puberty pattern and, therefore, take 2 to 5 years to complete (Hembree et al., 2009; Meyer et al., 1986; Seal, 2007). The testosterone doses used in adults stop the ovaries working, so only testosterone treatment is needed in almost all cases.

PHYSICAL EFFECTS

Facial and Body Hair

Testosterone treatment in transgender men results in the development of male pattern facial and body hair. The onset of facial hair development occurs typically after 6 to 9 months and is complete by 48 to 56 months (Hembree et al., 2009). This increase in facial hair is accompanied by a coarsening of the skin texture of the face. There is an overall increase in body hair and a change of the genital hair to a masculine pattern, with hair growth on the face, chest, abdomen, lower back and inner thighs (Meyer et al., 1981; Meyer et al., 1986). In susceptible individuals, there is a loss of scalp hair in a male baldness pattern.

Body Shape

Testosterone therapy in transgender men results in an increase in lean body mass and upper body strength; there is, at the same time, a decrease in body fat. This gives a more masculine body shape with increased muscle definition and a decrease in hip to waist ratio (Meyer et al., 1981; Meyer et al., 1986). These changes are the same as the changes seen in cisgender men who cannot make testosterone and are given testosterone treatment (Bhasin, 2003; Seal, 2013; Wang et al., 2000).

Genital Changes

The first physical change noticed by a transgender man on testosterone treatment is an increase in the size of the clitoris. This usually starts by 3 to 4 months and is complete by one year, with a usual final clitoral length of 4 to 5 cm (Meyer et al., 1981). This amount of growth is not usually of a degree that will allow penetrative intercourse. After about 6 months of treatment the ovaries change, so that they look the same as polycystic ovaries, but it is not known if these changes affect the way the ovaries work (Grynberg et al., 2010; Ikeda et al., 2013; Spinder et al., 1989). For the majority of transgender men, stopping menstruation is the most psychologically beneficial effect of hormonal therapy because they find menstruating so distressing. Periods usually stop within 2 to 3 cycles from the start of testosterone therapy, because the high level of testosterone in the blood stops the pituitary gland producing the hormones that control the ovaries, which then stop working (Seal, 2007). Transgender men should have their fertility plans discussed and, if necessary, the option of preserving fertility, such as ova storage, offered to them before they commence on testosterone treatment. Sometimes, (it is very uncommon) testosterone therapy on its own is not enough to stop the periods. If this is the case, other medicines called progestins, such as medroxyprogesterone acetate 10 mg three times daily or norethisterone 15 to 25 mg/day, can be used to stop the periods. More recently GnRH analogues have also been used to suppress menstruation in this situation.

Mood and Cognition (Thinking)

Testosterone therapy has important effects on behaviour. Aggression and general drive are increased when testosterone is given to cisgender men (O'Connor, Archer, Hair, & Wu, 2002). Transgender men say that they have more energy and aggression and there is an increase in sex drive (libido). They also say they feel “more settled” as the physical changes in their body help confirm their experienced or felt gender role. Studies show that transgender men on testosterone also have better visuo-spatial ability (Slabbekoorn, van Goozen, Megens, Gooren, & Cohen-Kettenis, 1999).

Voice

Testosterone causes growth of the voice box (larynx), deepens the voice and gives it a more masculine sound. The vocal cords also thicken, further decreasing the pitch. Usually, the voice breaks after about 9 to 12 months of testosterone treatment, but it can take up to two years to complete (Hembree et al., 2009).

NEGATIVE EFFECTS OF HORMONE TREATMENT (SIDE-EFFECTS)

Cholesterol and Lipids

There are significant gender differences in cholesterol levels, with cisgender males having higher total cholesterol, low density lipoprotein (LDL) (bad cholesterol) cholesterol and triglyceride (pure fat), with lower plasma HDL cholesterol (good cholesterol). All this means that cisgender males are more likely to have heart disease than cisgender females. People have worried that testosterone therapy in transgender men may make the cholesterol pattern resemble that of a cisgender male. However, studies show no change in total cholesterol or LDL cholesterol; there was a minor increase in pure fat (triglyceride) and a decrease in blood HDL (good cholesterol) levels (Elamin et al., 2010). The good news is that the rate of heart attacks (myocardial infarction) in transgender men is about one third the expected rate in the general cisgender male population (van Kesteren et al., 1997). This means that changes in cholesterol levels don't seem to translate into an increased risk of heart disease.

Thick Blood (Polycythaemia)

Testosterone increases the production of red blood cells by increasing the levels of the hormone erythropoietin in the blood (Nieschlag, Behre, & Nieschlag, 2012). Testosterone replacement therapy can increase the number of red cells in the blood (polycythaemia), which then becomes thick (increased viscosity). This can lead to an increased chance of having a stroke if the blood becomes too thick (Krauss, Taub, Lantinga, Dunskey, & Kelly, 1991). The

development of thick blood is more common with injectable forms of testosterone and, if this is the case, a gel form of testosterone is sometimes necessary.

Liver Function

Anabolic steroid use caused changes in the liver function in about 32% of people when these medicines were used in transgender men (Westaby, Ogle, Paradinas, Randell, & Murray-Lyon, 1977). Current treatment protocols do not use these anabolic steroids for testosterone replacement therapy. By using modern protocols, mild changes in liver function are seen in about 4-7% of transgender men (van Kesteren et al., 1997), but these are usually so mild that the treatment can be continued. Routine monitoring of the liver function in patients on testosterone replacement is recommended (Hembree et al., 2009; Seal, 2007; Wylie et al., 2014).

Cancer Risk

There is an enzyme in the body that can change testosterone to oestradiol and vice versa. In a normal menstrual cycle, oestrogen causes the growth and thickening of the lining of the womb. This is counteracted by the action of progesterone, which stops this growth. In transgender men, where testosterone may be changed to oestrogen and the normal menstrual cycle does not happen, there may be an excess of oestrogen without progesterone production. In theory, this could lead to a thickening of the lining of the womb (endometrial hyperplasia), which would be a risk for developing endometrial cancer in the long term. Reassuringly, there has only been one case of endometrial cancer reported in a transgender man on testosterone therapy, suggesting this risk is low (Urban, Teng, & Kapp, 2011). Moreover, most of the studies looking at the womb of transgender men, taken out at hysterectomy, show the lining of the womb became thin and under-developed, not thick (Grynberg et al., 2010). There was, however, one study that suggested that the lining of the womb could become thick in 15% of transgender men (Futterweit, 1998), and so it is usual practice to recommend hysterectomy (removal of the womb) after two years of testosterone therapy (Seal, 2007; Wylie et al., 2014). It is also standard practice to scan the womb to check for thickening of the womb lining every two years, if a person decided not to have a hysterectomy. Ovarian cancer risk appears to be very low; there have been only three cases reported following testosterone therapy for a prolonged period. Breast cancer risk also appears to be very low in transgender men. The risk appears to be the same as in the cisgender male population, which is 10 times lower than in the cisgender female population (Gooren et al., 2013). It is important to remember that male chest reconstruction is not a total mastectomy and that transgender men should check the breast tissue left behind regularly by self-examination. Overall, there are reports of 5 cases of breast cancer in transgender men on testosterone therapy (Gooren, 2014). Although the risk of developing cancers that could be related to hormone treatment is low, we recommend that transgender men have cancer screening in line with national guidelines. In the UK, cervical cancer screening programmes commence from age 25, with three-yearly cervical smears. For breast cancer, transgender men should be counselled that breast tissue still remains on their chest wall and they should perform regular breast self-examination.

Osteoporosis (Thin Bones)

Most of the studies in transgender men show that testosterone therapy appears to maintain bone mineralisation (Ruetsche, Kneubuehl, Birkhaeuser, & Lippuner, 2005). There has been one study suggesting a decrease in bone mineral density in transgender men after removal of the ovaries. This study suggested it was those transgender men who were on too low a dose of testosterone that developed bone thinning (osteoporosis) (van Kesteren et al., 1998).

Hormone Protocols

The dose of testosterone that is used is typically the same as we use in cisgender males who cannot make testosterone themselves. Below is an outline of the protocol used at the largest United Kingdom transgender health clinics (see Table 2.).

Transgender Men

The mainstay of treatment is the short acting testosterone ester injection (Seal, 2007, 2013). This product is the only preparation that is licensed for use in the field of transgender medicine in the UK (Datapharm, 2014). Newer preparations, such as topical gels or the longer acting injection testosterone undecanoate, are also effective. Testosterone, at these doses, is sufficient in the vast majority of cases to suppress ovarian activity but, if menstruation does not cease, progestins, such as norethisterone or medroxyprogesterone, can be used. More recently, GnRH analogues have been used to suppress ovarian function until oophorectomy (removal of the ovaries) is carried out.

Table 2. A list of testosterone preparations commonly the used in UK practice and how they are monitored (Seal, 2007)

Preparation	Dose	Frequency	Monitoring Method	Testosterone Values
Testosterone Injections (monthly)	250mgs Injection (Dose 150-250mgs)	7-35 days	Trough on day of injection prior to injection and Peak – 7 days later	Trough level – 8 – 12nmol/l Peak level 25 – 30nmol/l
Longer Acting Testosterone Injection (has a loading phase)	1,000mg	10 to 15 weekly	Two separate weeks prior to injection and on day of injection prior to injection	15 – 20nmol/l
Topical Testosterone Gel	50mg-100mg (5-10gm)	Daily	Ensure no gel on arms and 4 – 6 hours after application of gel	15 – 20nmol/l

LONG- TERM STUDIES

There have not been many studies looking at the long-term safety of hormone treatment in transgender people. The studies we have suggest that long-term treatment with testosterone in transgender men is not associated with any increased risk of cardiovascular disease and their life expectancy is not different from the general cisgender population (Asscheman et al., 2011; van Kesteren et al., 1997). In transgender women, however, there is a slight increase in the rate of death compared to the general population (the standard mortality ratio) (Asscheman et al., 2011; Dhejne et al., 2011). This increase in mortality appears to be associated with an increase in heart disease and stroke deaths (Asscheman et al., 2011). It has also been shown that the increase in vascular disease appears to be associated only with the use of ethinylestradiol, but not the other oestrogen types, and so this oestrogen type should be avoided (Asscheman et al., 2011). Breast cancer is extremely rare in transgender women and, therefore, hormone treatment can continue life-long.

LEARNING POINTS

- Cross-gender hormone therapy is integral to the treatment of the majority of transgender people.
- Cross-gender hormone therapy is effective in inducing the secondary sexual characteristics of the person's experienced or felt gender.
- Cross-gender hormone replacement can cause side-effects; for transgender women, blood clots, and transgender men, high cholesterol.
- Cross-gender hormone replacement provides psychological benefit to the individual being treated.
- With careful monitoring and the use of hormone preparations with more natural properties, these therapies appear to be safe in the longer term.

FURTHER READING

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Chapter 19

CHEST SURGERY AND BREAST AUGMENTATION SURGERY

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OVERVIEW

The presence or absence of breast tissue is one of the characteristics that identifies a person as male or female. In Western society the breast occupies an identifying role, far greater than its physical size. As such, those seeking to reassign their gender often seek breast/chest surgery, to help achieve their aims. By altering the volume of breast tissue present we must be aware, however, of the balance between breast and chest wall anatomy and that there may be psychological implications to this. This chapter will firstly provide an overview of the anatomy of the breast/chest, followed by the assessment process, and the interventions used for transgender men and transgender women.

INTRODUCTION

During this chapter, several terms will be used that have not been described elsewhere, as they are specific to this chapter. I will try to avoid using complex terms, but this may not always be possible. I have listed the terms in alphabetical order, so they can easily be found when reading this chapter:

- **Areola:** Please see nipple areola complex.
- **Body Mass Index (BMI):** A value derived from the weight and height of an individual.
- **Capsule:** The fibrous scar which forms around an implant and which can become thickened and contracted to produce capsular contraction.
- **Crease under the breast:** Technically known as the inframammary fold and an important landmark in breast surgery.

- **Dermoglandular pedicle:** An island or peninsula of tissue consisting of deeper layers of both skin and breast tissue, often with the aim of the nipple areola complex being at its terminal end, thus enabling the nipple to be moved to a new position.
- **Drains:** Plastic tubes, often a few millimetres in diameter, which are left in the patient to remove potential fluid which might accumulate.
- **Epithelium:** The top layer of skin.
- **Heparin:** A substance used to thin the blood, often in a low molecular weight form (see also **Tinzaparin**).
- **Liposuction:** A method of extracting fat using small tubes known as cannulas, which can be used to remodel body shape and breast volume.
- **Nipple:** see **Nipple Areola Complex**.
- **Nipple Areola Complex:** The centrally projecting bud (nipple) and coloured piece of skin surrounding the centrally projecting bud (areola), which contains ducts from the breast. It is more rudimentary in males.
- **Nipple Bud:** see **Nipple Areolar Complex**.
- **Periareolar:** An incision running at the junction of the areolar margin with the normal coloured skin. This is chosen as the scar is, therefore, ‘invisible’, as it is at the junction of the two skin colours.
- **Physical Examination:** The term for inspecting the breast/chest area in order to determine the appropriate surgical way forward.
- **Prolene:** A non-absorbable stitch, which has to be removed. It is often used in patients at risk of forming wider and protruding scars.
- **Seroma:** A body fluid, which can build-up in potential spaces following surgery, such as deep inside the new male chest, or around the implants when creating a female breast.
- **Stretch Marks (Striae):** The tears in the skin that are commonly found after significant weight loss or following pregnancy, which are usually an indication of a less elastic skin.
- **Stitch:** A foreign material used to join pieces of skin.
- **Symmastia:** A condition where the space between the two breasts does not exist. This means that essentially both breasts merge. This can lead to difficulty in chest reconstructive surgery.
- **Symmetry:** The degree of similarity between the two breasts.
- **Tinzaparin** see **Heparin**.
- **Venous Thromboembolism:** A blood clot (thrombus) which can be formed within a vein. The formation of a blood clot can take place in the deep veins during surgery or immobilisation. The blood clot can break off into small blood clots (embolisms) that can flow towards the lungs, brain or other organs, potentially causing a life-threatening condition, such as a lung embolism. Methods of trying to avoid this include the use of tight stockings and/or the use of Heparin (medication to thin the blood).
- **Vicryl (and Absorbable):** A suture that is formed from dissolvable material.

ANATOMY OF THE BREAST AND CHEST

Development

The breast first develops, as a small disc, immediately beneath the nipple areolar complex. The female breast tissue begins to develop between the ages of nine and fourteen. It develops as a conical structure. Although the two breasts tend to grow symmetrically, this is not always the case. Abnormalities may occur, resulting in one breast being smaller or larger than the other.

Skin

As a skin appendage, the breast is clearly related to the skin itself and the elasticity of the skin can affect the appearance of the breast. Stretch marks (striae) often occur in people post-pregnancy, or who have lost a significant amount of breast volume, and they can be a sign of loss of the elasticity of the skin. This loss of elasticity needs to be taken into consideration when surgery is performed.

Breast Content

The content of the breast consists of two elements: a fatty content and glandular content. The fat content varies in amount and is responsible for most of the bulk and soft consistency of the breast tissue. The actual glandular tissue contains approximately twenty lobules, which are arranged in a 'spoke-like' fashion, extending outwards from the nipple bud.

Blood Supply

Breasts receive blood supply from vessels coming from the middle of the chest and also from vessels coming from the armpit.

Underlying Muscles

The muscles under the breast tissue are: the pectoralis major muscle, the pectoralis minor muscle, the serratus anterior and the external oblique muscles. The pectoralis major muscle, as its name suggests, is the major muscle under the breast and is the one which gives the male breast its definition when "bulking up" following exercise.

Nerve Supply of the Nipple

The nerve supply to the nipple is complex, but tends to arise from the 4th intercostal nerve. This is often cut or stretched during breast surgery, especially if the nipple-areola

complex is moved or re-sized. Given that the nerve supply is complex, other nerves in the area will become involved. Following surgery, there will be a change in the nerve sensation of the nipple.

ASSESSMENT PROCESS

Forming an impression about a patient begins with the referral letter from a transgender health clinic service. The initial consultation is a face-to-face meeting with the patient and it is important that a good doctor-patient relationship is developed at this stage. Certainly, it is important that the patient realises that the surgeon has a genuine desire to help and will listen to specific thoughts and requests for the postoperative appearance. It is important to remember that surgery often represents an important goal of a process, which may have started many years before. Often, patients will attend with significant others, or family that will offer them support. Support is necessary during the postoperative period at home, in order to reduce the risk of complications and, therefore, optimise a good surgical outcome.

Physical (Clinical) Examination

As part of the initial consultation all patients will undergo a clinical examination. The aim of this is to make an assessment and to enable a discussion with the patient in order to select the most suitable surgical procedure.

Breast size and symmetry should be noted; symmetry needs particular care as the weight of tissue removed will therefore be different from each side. The presence of breast ptosis, the skin quality and the nipple-areolar position will help to determine the suitability of the techniques that will be used. Body piercings or tattoos, which lie in the surgical field, should also be identified and discussed with the patient. In the author's experience, nipple piercing does not increase the risk of graft failure for the nipple-areola complex, but the patient should be made aware that this is a potential risk. It is always worth enquiring as to the patients' expectation/aims and any results they may have seen in others that they would like, or that they wish to avoid.

Body Mass Index (BMI)

BMI is a method for measuring the relationship between height and weight. Those involved in the care of transgender patients should be aware that some transgender people may gain weight in order to disguise their gender. Therefore, surgeons should be sensitive to the preoperative BMI requirement, although it must be noted that the risks of surgery do increase if people have a high BMI. There are reports describing an increase of blood clots in the deep veins of the legs and lungs, infection rates (wound, urinary and chest) and cardiac rhythm abnormalities associated with high BMI. In addition, there will be an increase in the practical difficulties of undertaking a surgical procedure in overweight people, such as finding access to veins, due to the presence of more subcutaneous fat, and therefore the use of

intravenous drips. It is important to add that, if people lose weight postoperatively, as they are more comfortable with their gendered appearance, the results of chest reconstructive surgery may be affected. It is also important to recognise that the larger a patient is, the more difficult it is to obtain the best results. Therefore, weight must be stable in the perioperative period.

Cross-Sex Hormone Treatment

Cross-sex hormone therapy has been reported to increase the risk of clots in the legs in all patient groups. In patients undergoing gender confirming genital surgery, it is common practice to stop hormone therapy three months preoperatively. However, in patients undergoing chest reconstructive or augmentation mammoplasty, given that they are likely to be mobile immediately post-surgery, the author does not advise that patients stop hormone therapy. Reassuringly, the rate of deep vein thrombosis (DVT) has been very low.

Family History

Collecting information regarding the family history of breast cancer or related cancers has been part of the chest reconstructive surgical assessment process for many years. However, the risk of breast cancer developing in a transgender patient is reported to be low (Brown, 2015; Brown & Jones, 2015), although the scientific basis for this is limited. It is therefore advised that, as well as collecting information regarding the family history of the patient and advising accordingly, a mammogram should be offered to all patients over the age of 40. Some patients will have already undergone mammography as part of the National Health Service (NHS) breast cancer-screening programme, and this result may be accepted for a period of twelve months following this investigation. Those patients with a proven genetic predisposition to developing breast cancer should have already been counselled with regard to their lifetime risk. It should be noted that cisgender males may also develop breast cancer, albeit at a lower rate than their female counterparts; and some breast cancers are associated with specific genetic risks. Transgender men, and those non-binary people who were assigned female at birth and opt for chest surgery, will retain some breast tissue postoperatively and must be aware of the later potential risk for the development of breast cancer, however small. It is also useful to send all breast tissue for histological analysis in patients over the age of 40, as well as younger people with a previous history of breast problems or any other type of family history. To date, however, the author has not detected any histological changes of relevance.

Transgender women, and those non-binary people who were assigned male at birth, do have a lower breast cancer risk when compared to those assigned female at birth, presumably due to the smaller amount of breast tissue they possess. In this instance the use of oestrogens does also increase the level of breast cancer risk, however, there is no significant follow-up data to reach firm conclusions. In the United Kingdom transgender females will, of course, be invited to attend the National Health Service Breast Screening Programme (Public Health

England, 2010) and receive regular mammography from approximately the age of 43 to 73. Non-binary people, who are not registered with the National Health Service (NHS) as female, may not receive notification of this and may need to make individual arrangements via their GP.

BREAST AUGMENTATION SURGERY

Introduction

Breast enlargement, which is technically known as augmentation mammaplasty (or mammoplasty), uses implants to enlarge the size and the fullness of women's breasts. Patients undergoing augmentation mammaplasty will have been referred by a transgender health clinic service and will, therefore, be prepared physically and psychologically for their surgery. If the procedure is combined with gender confirming genital surgery, patients should be advised to stop smoking and to stop hormone treatment in preparation for genital reconstructive surgery. It is important to have a post-surgical plan in place, including appropriate support from significant others, to ensure there is a safe environment in which to recover at home.

Hormone Therapy

Patients will have received oestrogen therapy and hormone blockers (in some cases), for a period of time before they undergo breast augmentation surgery. There is a variation as to the amount of breast development due to oestrogen therapy. It is recommended that patients are on oestrogen therapy for at least a year after achieving adequate oestrogen levels, prior to considering breast augmentation, so that any development from oestrogen therapy will have occurred. Augmentation mammoplasty is not regarded as a core procedure for state funding by the National Health Service (NHS) in the United Kingdom (UK), but patients who have failed to develop breasts sufficiently, may be offered funding for this procedure, as any other cisgender woman would. This tends to be judged by cup size or Tanner development stages (Marshall & Tanner, 1969).

Discussing the Options

It is important that the patient discusses her aims regarding breast augmentation with her surgeon, in terms of size, degree of roundness or appearance, and intermammary distance. It is also important that nipple position is discussed. The nipple-areola complex in transgender females tends to sit somewhat more laterally than in the cisgender female population. The scarring required to move the nipple areolar complex to a more central position is, however, often prohibitive.

Types of Implants

There are a number of options in terms of size, fill and shape, which the surgeon should discuss with the patient. Suitability of implants is affected by the amount of existing tissue and the look, which the patient hopes to achieve. Breast implants, essentially, fall into round and anatomical varieties, with the anatomical ones tending to be teardrop shaped and slightly longer from top to bottom, than from side to side. In the author's opinion round implants tend

to give a better result. The selection of the size of the implant will be discussed with the patient and will vary according to the patient's desires. It is possible that, in transgender women, as well as in cisgender women, breast asymmetry may have developed, with one breast being somewhat larger than the other, as a result of hormone treatment. If that is the case, a smaller implant can be used in the larger breast, in order to give more symmetry in appearance.

Textured and Smooth Implants

Smooth implants were used until the 1980s when implants with a textured surface became used more frequently. Textured implants may be beneficial in reducing the capsular contracture rate. The author tends to use form-stable cohesive silicone, which, if the implant is cut into, looks like a jelly baby. Older implants tend to have a more liquid fill and there is also a saline implant. Saline implants are very prone to rippling and wrinkling, and there is a potential rapid loss of size, if they leak (see later).

Procedure

The operation itself will be carried out under general anaesthetic.

Implant Placement

Implant placement can essentially be performed in one of two planes: sub-glandular or sub-muscular. Traditionally, many transgender women have undergone sub-muscular implant placement (underneath the pectoralis major muscle), as, in this position, the implant is somewhat deeper. It is important to realise that the muscle does not cover the implant completely. Wherever possible, if hormone therapy has given the patient a reasonable degree of breast tissue under which the implant can be placed, the author would prefer to place the implant in a sub-glandular position.

Location of the Incision

There are a number of places in which the incision for the implant can be made. Traditionally, the most frequent choice is inframammary, that is in the crease underneath the breast. There are other positions that have been described, such as around the areolar margin at the edge of the nipple, through the axilla, or even through the tummy button (umbilicus). The advantage of the inframammary incision is that the implant tends to disguise the incision, and most female clothing tends to cover this, so that it is probably the least visible incision site.

Stitches and Support Bra

Post-operatively, the author advises patients to bring with them a comfortable sports bra. It is suggested to the patient that they should wear this night and day, until they are reviewed by the surgeon approximately a week later. It should be noted that there should not be any wiring, for at least six weeks, and, although it may be tempting to wear newly bought lingerie to enjoy the new breasts, this should be resisted. Most surgeons will use a dissolving (absorbable) suture, so there is no need to remove this postoperatively. It is prudent to keep

the wounds dry until the patient is reviewed in the outpatient clinic, and to refrain from any undue stretching, heavy lifting or strenuous activity.

Surgical Drains

This surgeon does not use surgical drains as, in his clinical practice, the incidence of seroma requiring later drainage is small (<1%). The removal of drains can be unpleasant for the patient and may necessitate a longer hospital stay. Despite this, a number of surgeons continue to utilise drains to facilitate seroma drainage.

Recovering from Surgical Care

The patient will be monitored for a number of hours and, again, it is normal practice to spend the night in hospital. It is advisable that the patient arranges for someone to collect them from hospital, in order for them not to drive following a general anaesthetic.

Swelling and Tenderness

Swelling and tenderness are common for at least a month following surgery and are no cause for concern. If, however, extensive bruising is noted, or blood oozing from the skin, then it would be sensible to contact the operating surgeon. Burning pain, sharp shooting pain and general discomfort, again, are common and should disappear within a few days of surgery, as should a 'gurgling noise', which represents air trapped in the cavity, which will be absorbed by the body and does not represent anything dangerous.

Exercise, Return to Activity

Following surgery patients may be offered some exercises by the physiotherapist on the ward, and they should take matters relatively easily, until they are reviewed by their surgeon.

RISKS AND COMPLICATIONS

As per every surgical procedure, these may be divided into general and specific. General complications include deep vein thrombosis and thromboembolism, as well as chest and wound infections. Specific complications include breast asymmetry, (one side being somewhat different to the other), and rippling or wrinkling of the implant, (the natural folds which occur in an implant that may become visible through the skin). Rippling and wrinkling are particularly likely if weight is lost post operatively, or if the implants used are relatively large in proportion to the naturally occurring breast tissue.

Effect on Cancer Detection Screening

It should be noted that implants are visible on x-ray mammography. Patients are advised to inform the screening programme that they have implants in place, when they are called for a check-up. This is normally mentioned on the form sent to patients. Practically, the equipment for mammography on the mobile screening unit used in the UK does not have the

necessary quality to be able to “see round the implant.” Therefore, patients will need to attend the hospital x-ray department instead.

Nipple Sensation

Nipple sensation may change following breast augmentation surgery. Current estimates are that approximately one in seven patients noticed change to their nipple sensation.

Lymphoma

Recently, breast implants have been associated with Anaplastic Large Cell Lymphoma. This incidence is quite rare (1/30,000 to 1/300,000 persons) and has come to light following the PIP (French implant) crisis. Implant Associated Anaplastic Large Cell Lymphoma, tends to present sometime after implantation surgery, with swelling in the breast and/or a lump. Patients noticing this type of presentation should be referred to a breast unit specialising in cancer detection, where specific tests will be performed. Treatment usually requires complete removal of the implant and the scar tissue (capsule) around it.

Capsular Contracture

Capsular contracture is the most common reason for re-operating on a patient after augmentation. When an implant is placed in the breast, or under the muscle to the breast, and the body forms a scar around the implant, this is known as the capsule. In most cases this is not obvious and the breast feels soft and has a natural shape. However, in a proportion of patients, this scar contracts, which tends to squeeze the implant to a less natural shape, and can become quite hard. It can also become tender. The risk of noticeable firmness resulting from capsular contracture is estimated at approximately seven per cent at the five-year mark. The chance of requiring a re-operation for any reason is approximately one per cent per year. In other words, after ten years, approximately ten per cent of patients will have undergone a re-operation.

Leakage or Rupture of the Implant

Breast implants are designed to be tough, but due to wear and tear over the years, they can eventually fail and leak. This is usually not a serious event and, if a leak does occur, it is usually contained within the fibrous capsule, so does not represent a serious problem and, indeed, may not be noticed by the patient. Others may notice that the implant changes and report this to their operating surgeon, who will then undertake a scan (usually an ultrasound scan, but an MRI scan may be necessary). If the implant is, indeed, leaking or ruptured, removal and exchange of the implant is advised. There is not a replacement plan for breast implants and, indeed, most manufacturers tend to give a ten year guarantee (they will pay for the implants, if they require replacing before ten years). It should be borne in mind that this is

not the whole cost of the procedure. One can, therefore, deduce that the manufacturers view their implants as lasting in the region of ten years, but the author has removed an implant perfectly intact at thirty-five years! It would be sensible, therefore, for anyone undergoing breast enlargement or augmentation to be financially prepared to fund surgery again at some point in the future.

MASTECTOMY AND CHEST RECONSTRUCTIVE SURGERY

For most transgender male patients, cross-sex hormones have relatively little effect on the volume of breast tissue. However, they do seem to lead to less firm/dense breast tissue, which is then easier to manipulate surgically. Surgery remains the primary mechanism to achieve a reduction in the breast volume and create a masculine shape.

The aims of chest reconstructive surgery are:

- To reduce breast volume
- To reduce the skin envelope
- To obliterate the crease under the breast
- To obliterate the lateral impression of the breast
- To reduce the diameter of the areolar
- To reduce the nipple bud projection and diameter
- To reposition the new nipple-areola complex to a more masculine position
- To keep scarring to a minimum and preserve sensation when possible

In some transgender males, years of binding may have affected the patients' skin elasticity. This can lead to poor quality skin and potential complications postoperatively. In most situations this is not the case, but patients should be advised to stop binding, prior to surgery. It is important, regardless of the technique used, to preserve enough subcutaneous fat and glandular breast tissue to maintain a pleasing contour. Failure to do so leaves an unpleasant cosmetic result and a difficult situation to correct. Undertaking a mastectomy and chest reconstruction in transgender men requires a different mind-set on behalf of the surgeon, when compared to surgery performed for cancer or excessive breast tissue in natal males. The main techniques currently in use are described next.

DOUBLE INCISION TECHNIQUE

The author uses this procedure in the majority of cases. This surgery removes both skin and breast tissue and allows good access to the plane overlying the pectoralis major muscle (muscle underlying the breast). In the author's opinion, breast volume exceeding 200 grams should be operated on using this method. The patient is marked, with a marker pen, while sitting, so that an accurate estimation of the postoperative result can be obtained (see Figure 19.1.).

The procedure involves harvesting the nipple-areolar complex as a full thickness skin graft. The breast is then removed within the drawn lines and the nipple-areola complex is

grafted back into its new position on the chest wall. The author's preference is to place the lower incision at, or just below, the crease under the breast. It is an important clinical judgment determining the repositioning of the nipple areolar complex. The author does not use suction drains, although these are used by other surgeons. Some surgeons have suggested using a dermo-glandular pedicle to attempt to maintain nipple sensation, but, in the author's opinion, the sensation is not likely to be preserved by doing so and the dermo-glandular pedicle, or peninsula of tissue on which this is based, can lead to bulkiness.

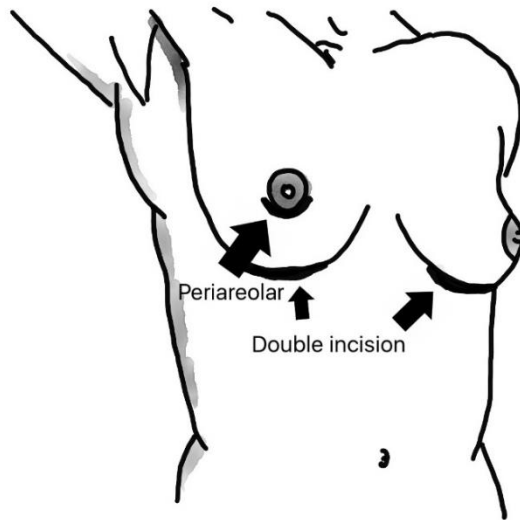


Figure 19.1. Periareolar and Double Incision.

PERIAREOLAR (OR KEYHOLE) TECHNIQUE

The author would use the periareolar or keyhole method when the volume of the breast is less than 200 grams, and probably less than 150 grams of tissue needs to be removed. The weights are based on clinical judgment. This equates, in the author's practice, to no more than 7% of cases. The procedure used by the author is similar to the double concentric circular technique, described by Davidson (1979). There is relatively little movement of the nipple during this technique. Whilst the skin and breast volume have to be considered when selecting this technique, the position of the nipple-areola complex also needs to be taken into consideration as, if this is unduly low, a good cosmetic result may not be achieved (Figure 19.1).

OTHER SURGICAL TECHNIQUES

Liposuction

This is different to the periareolar or keyhole technique and used only in small and relatively fatty breasts. The author has used liposuction in a minority of cases, but often there

is sufficient gland present that this will not reduce the breast volume sufficiently. The author's preference is to use the tumescent technique, as described by Klein (Klein, 1990). This involves the use of very small cannulas. The breast is approached by stab incisions, one in the crease underneath the breast and the other towards the armpit. Those suitable for primary liposuction alone would include those with small breast volume, less than 150 grams, ideal masculine position of the nipple-areola complex, good skin elasticity and relatively fatty tissue.

Nipple-Areolar Procedures

It has already been noted that, during the techniques of double incision and periareolar, the nipple-areola complex is, by definition, resized. The author's preference is not to alter the diameter of the nipple bud itself, as this often retracts back and, provided the graft is thin enough, it assumes a more masculine appearance. Occasionally, with the periareolar technique, the nipple bud itself does not retract, and this may require a shortening of its projection by amputating the end to obtain a more masculine appearance.

COMPLICATIONS FROM SURGERY

Inadequate or Excessive Resection

The aim of chest reconstructive surgery must be to create a smooth contour of tissue which resembles the male form. Either excessive or inadequate tissue excision will detract from this.

Seroma

A seroma is a pocket or collection of clear fluid that sometimes develops in the body after surgery. When small blood vessels are ruptured, blood and blood fluid can seep out and inflammation, caused by dying cells, will contribute to the fluid. Fluid builds up in the space underneath the breast gland, between the tissue flap and pectoralis major muscle. Suction drainage has traditionally been used to treat this and, most recently, low-pressure systems have been used. The author does not use drains post operatively, as a number of patients experiencing seromatous fluid post-surgery, in my experience, is low.

Dog Ears

Dog ears are pouching of the skin, usually found at the ends of the scars, near the armpits. They can also occur towards the middle of the chest, usually where the double incision technique has been used. They often appear more prominent from the patient's perspective and can be upsetting for the patient. Most dog ears will settle with time and, if minor, with

gentle massage do not require further surgical intervention. If this is not successful, however, a further excision to remove them may be required.

Scarring

Scars from the double incision technique are relatively lengthy and, to some degree, prone to stretching and hypertrophy. In darker skinned individuals, the author's preference is to use a non-absorbable stitch (prolene), rather than absorbable (vicryl), for skin closure. It is important to advise patients, from the outset, that there may well be hypertrophic/keloid scar formations. That is scars which appear itchy, pink and raised. It is also important to note that there may be patchy depigmentation of the graft nipple areolar complex. The author's preference is also to support the wound with the use of micropore tape, and patients are advised to massage their scars with Bio-oil, or other such products, postoperatively. If the above treatments are unsuccessful, there may be the need for steroid injections into the scar, or formal excision and re-suture.

Infections

These appear to be relatively rare. The author's infection rate is less than 0.5%.

Venous Thromboembolism

The occurrence of deep vein thrombosis (DVT) appears relatively rare, as patients are mobilised immediately postoperatively. Standard DVT prophylaxis includes the use of below-knee elasticated (TED, Thrombo-Embolitic Deterrent) stockings. The author does not use blood thinning medication (such as heparin) routinely. However, in heavier patients, who are at increased risk, Tinzaparin, as a single postoperative dose, will be used. Patients are not advised to stop their cross-sex hormone treatment prior to surgery, given that mobilisation is relatively rapid.

Further Complications

The author has encountered a number of cases where a revision (further operation) has been required and this, very often, has resulted from the use of periareolar technique, or extended periareolar technique, where, perhaps, a double incision technique might have been better applied. This has tended to result in uneven tissue resection, as mentioned above. In this situation the author has tended to use the double incision technique to correct the problem.

A central "dimple" can also occur when patients have a relatively narrow intermammary distance or symmastia (uniboob), where there is essentially a bridge of tissue between the breasts. Often, in this situation, the breast tissue that is resected from each side has been in excess of 1 kilogram. If this central dimple occurs, discussions with the patient need to take

place preoperatively, as two separate incisions will be required: one in order to unify over the mid-line by double-breasting the skin and, a second in order to de-epithelialise the central bridge of tissue.

Long-Term Results

The techniques mentioned above seem to produce durable long-term results. The only exceptions are in patients who have had relatively high body weight or body mass index prior to surgery and then exercise significantly once they have had their chest surgery performed. These patients are advised that there is likely to be deterioration of the cosmetic result due to a significant weight loss affecting their overall body habitus.

LEARNING POINTS

- Chest reconstruction leads to an improvement in psychological and physical well-being.
- Chest reconstruction should be performed by those with experience in the field and with links to those GIC physicians who have supported the patient through their initial care.
- Chest reconstruction should not be regarded as an excessive tissue case in the natal male (gynaecomastia).
- Over resection and poor results can be difficult to correct.
- Minor revisions can be necessary but, fortunately, significant complications are rare.

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Chapter 20

GENITAL RECONSTRUCTIVE SURGERY FOR TRANSGENDER WOMEN

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OVERVIEW

The purpose of genital reconstructive surgery for transgender women is to align the genital anatomy to the gender identity, according to the individual's experience. In order to achieve this goal, most transgender women are firstly asking for hormonal treatment, and secondly for surgery. In the case of surgery, most of the patients are asking for construction of genitals similar to those of cisgender females, in terms of function and looks. Ideally, this should be achieved with minimal pain, scarring and complications (Karim, Hage, & Mulder, 1996). Surgery consists of removal of the penis and testicles, and creation of a vagina, clitoris, labia and urinary tract. This enables a transgender woman to pass as a woman in contexts where she wears tight, little, or no clothing, and provides her with genitals capable of penetrative sex with erogenous sensation. While some transgender and gender nonconforming people achieve alleviation of their gender dysphoria without surgical treatment involving the construction of a vagina and clitoris (i.e., genital reconstructive surgery for transgender women), for most transgender women the creation of female genitals is essential to be comfortable in their gender identity and expression. Often, genital reconstructive surgery is the last step in the treatment of gender dysphoria, following hormone treatment and, sometimes, breast augmentation surgery (Coleman et al., 2012). This chapter will discuss the current techniques for genderconfirming genital surgery for transgender women.

INTRODUCTION

In this chapter several terms will be used which may not have been described elsewhere, as they are specific to this chapter. We will try to avoid using complex terms, but this may not always be possible. We have listed the terms in alphabetical order so they can easily be found when reading this chapter:

- **Body Mass Index (BMI):** A value derived from the weight and height of an individual.
- **Clitoris:** For many, the most sensitive part of the vulva.
- **Colostomy:** A surgical procedure in which an opening through the abdominal wall to the large intestine is formed.
- **Gender reassignment surgery (GRS) or genderconfirming surgery (GCS), or gender affirmation surgery (GAS):** Refers to all types of surgery designed to align the anatomy to the experienced gender identity. This includes chest reconstructive and breast augmentation surgery, genital reconstructive surgery and facial feminization surgery (FFS).
- **Labia majora and minora:** Two layers of skin providing both sensation and protection for the vagina and clitoris.
- **Lung embolus:** When a blood clot, which is usually formed in the lower extremities, becomes caught in the arteries of the lung, affecting the function of the lung.
- **Recto-vaginal fistula:** Damage of the rectal wall, forming a small opening between the rectum and the new vagina.
- **Sex reassignment surgery (SRS):** Mostly refers to genital reconstructive surgery only, performed to modify the genitalia according to the person's desire.
- **Urethra:** Urinary channel and opening.
- **Vagina:** A cavity which varies in width and depth, and is usually tilted slightly backwards. The opening of the vagina is found between the urethra and anus.

HISTORY

One of the first transgender women undergoing genital surgery was Lili Elbe, whose story is portrayed in the 2015 film *The Danish Girl*. A total of four surgical procedures were performed on her in Germany in the 1930s. The first operations included removal of testicles and penis and implantation of an ovary, and were considered a success. The final operation involved transplantation of a uterus and construction of a vagina. Elbe died as a consequence of this last, and very experimental, operation (Worthen, n.d.).

After World War II there was great progress in the area of sex reassignment surgery (which was the term used at that time) and, during the 1950s, surgeons again attempted to create vaginas in transgender women. The Danish surgeon, Paul Fogh-Andersen, was the first to use penile skin to form the inner lining of the new vagina. Fogh-Andersen's patient, Christine Jorgensen, became famous, and knowledge of the possibility of transforming from a male to a female, hormonally and surgically, spread around the world. Interest in genderconfirming treatment grew quickly, but physicians were inexperienced and worried regarding this new group of patients. Little was known about the effects of surgery, and the psychological shock of the operation was feared to be extreme (Monstrey et al., 2007). The one who changed the view on gender dysphoria was Dr. Harry Benjamin. He stated that 'transsexualism' (which was the term used at that time) was due to an incongruence between the gender identity and the physical appearance, rather than being a mental illness *per se*. What is now known as the World Professional Association for Transgender Health (WPATH) was formerly known as the Harry Benjamin International Gender Dysphoria Association,

named after Dr. Harry Benjamin due to his great impact on the treatment of gender dysphoria. From the 1950s onwards, the practice and knowledge of gender confirming treatment has become increasingly spread around the world. Today, in fact, there are centres performing genital surgery for transgender women on all continents. The steps for gender confirming treatment are regulated by the World Professional Association for Transgender Health, through what are called the Standards of Care (Coleman et al., 2012). These are global guidelines created to enable a healthcare system that is both safe and effective.

CRITERIA FOR SURGERY

The Standards of Care recommend that transgender women should fulfil certain criteria before undergoing genital surgery:

1. Persistent, well documented gender dysphoria.
2. Capacity to make a fully informed decision and to consent to treatment.
3. Age of majority in a given country.
4. If significant medical or mental health concerns are present, they must be well controlled.
5. 12 continuous months of hormone therapy, as appropriate to the patient's gender goals (unless the patient has a medical contraindication or is otherwise unable or unwilling to take hormones).
6. Twelve continuous months of living in a gender role that is congruent with their gender identity (Coleman et al., 2012).

In addition to these criteria, it is recommended that there should be regular contact with mental health and medical professionals during the entire process (Coleman et al., 2012). The irreversibility of genital surgery is the reason for a thorough process before proceeding with the operation. The aim is to treat gender dysphoria as effectively and safely as possible, reducing the risks of regretting surgery. So far, it has been shown that genderconfirming genital treatment has a positive effect on subjective well-being, sexual function and appearance (De Cuypere et al., 2005; Klein & Gorzalka, 2009). In addition, a number of studies show that very few transgender women regret surgery (Lawrence, 2003; Vujovic, Popovic, Sbutega-Milosevic, Djordjevic, & Gooren, 2009; Weyers et al., 2009).

PREPARATION FOR SURGERY

For each transgender woman, understanding one's own goals, and what can be reached after surgery, is paramount. A dialogue should be kept with mental health professionals working in the field of transgender health, surgeons and, in some cases, social workers, to learn about the available options of treatment. For example, not everybody is willing to undergo genderconfirming genital surgery all the way to constructing a functioning vagina. Even though the majority of transgender women are aiming to achieve a deep and functioning vagina and removal of the male genitals (i.e., penis and testicles), a minority of the

transgender population prefer only to have a surgical castration (i.e., removal of the testicles), while others are aiming to have a clitoris and labia with a short vaginal entrance (in order to ease the post-operative recovery process and reduce the risk of complications), which is not deep enough for penetrative intercourse. In addition to the information given by health professionals, many transgender women find support online, in websites and forums, mostly from other transgender women who have undergone, or are planning to undergo the same process. Candidates for surgery must be aware that web-information might not necessarily be complete and/or contain all the evidence-based facts; nevertheless it can stimulate patients' curiosity and lead to a deeper dialogue at the surgical consultation.

The professionals guiding patients through this process should be recommending a healthy life style in preparation for surgery, including care of general health issues, such as reducing obesity and cessation of smoking, if applicable. Obesity increases the risks of anaesthesia, and also makes surgery technically more difficult to execute. Smoking is also shown to have a negative impact post-operatively, with more post-surgical complications, as wound healing is affected and the risk of infections is higher. Therefore, patients are requested to stop smoking completely for weeks before surgery, and to lose weight to reach a normal Body Mass Index. In addition, 2-4 weeks before surgery, hormonal therapy should be discontinued, including estrogen supplementation and anti-testosterone medication. This is due to the increased risk of lung embolism caused by these medications. Surgery in itself, and the reduced mobilization during the period after surgery, are also factors adding to the risk of blood clots, making it a vulnerable period. The most distressing aspect for the patient is often the interruption of anti-testosterone treatment, and what effect this can have on the body. Even though for most patients this does not cause any inconvenience, due to the short period of time, still, minor changes may occur, such as increased hair growth. In countries such as the UK and USA, for example, GnRH analogues, which are used to adequately suppress testosterone, are used up until a few days before surgery. Seven to ten days before surgery it is advised not to use any medication affecting coagulation systems. This minimises the risk of bleeding during surgery. As in any other surgery, including general anaesthesia, fasting is required at least six hours before the operation.

GENITAL SURGERY

Genital reconstructive surgery will permanently change the patient's anatomy. This consists of the removal of some unwanted structures (e.g., testicles), and reshaping and repositioning the existing healthy anatomy (e.g., skin and glans of the penis) in order to construct a vagina, labia majora and minora (if possible), and clitoris as similar as possible to those of cis-gender women, in appearance and function.

The Vagina

Standard procedure is to create a vagina of sufficient depth and width, which is suitable for penetrative intercourse and retains its size in the future. Less common is the option to create a vulva without forming a vaginal cavity. A deep vagina can be formed using different

methods. This requires the dissection of a cavity between the prostate and rectum, and on the inner lining of the vagina. The width of the vagina depends on the bone structure of the pelvis, as well as on the compliance to the dilation regimen following the surgery. The size of the pelvis in individuals assigned male at birth is normally small (smaller than those assigned female at birth), and even smaller in those transgender females presenting with short stature. This affects the width of the vagina; it might, in fact, cause difficulties when the surgeon is dissecting the cavity, and eventually the final vaginal width might not be as expected by the patient, with possible difficulties at dilation and penetrative intercourse (van Trotsenburg, 2009; Andreasson et al., 2017). This anatomical variation (narrow pubic bones causing a narrow vagina) still constitutes an unsolved problem.

The type of material used to form the inner lining of the vagina influences the size of the cavity, the post-operative dilation regimen, and the need for lubrication (Selvaggi et al., 2005). The most commonly used method is to create a vagina using inverted penile skin, with or without a scrotal flap or skin graft. As an alternative, adopted mostly as a secondary choice following the failure of the peno-(scrotal) flap, or when the patient is presenting with an underdeveloped penis (occurring usually after pubertal suppression therapy), a bowel segment can be isolated, and used to line the cavity. The choice of method might also depend on the patient's anatomical conditions before surgery, the desired qualities of the vagina, and the surgeon's area of expertise. Various medical centres use slightly different techniques and variations of these two main methods (inverted peno-(scrotal) flap or bowel as inner lining). There is, currently, no evidence that one technique is better than another, or that the procedures adopted by one specific surgeon should be adopted worldwide.

Penile skin, used as the inner lining of the vagina, has the advantage of being hairless; also, since it remains connected to the body during the operation, tactile sensibility might be kept. This method is not suitable when there is too little material (penile skin) available. This can be the case in circumcised patients, where parts of the penile skin have been cut off, or in transgender women who started hormonal treatment (pubertal suppression therapy) at an early age. The latter results, in fact, in a penis that does not grow to a standard size, and consequently the penis does not provide an adequate amount of skin to line the wall of the vaginal cavity. When extra skin is required, as in circumcised patients, the scrotal skin is usually used to line part of the vaginal wall. The scrotum has the disadvantage of being covered with hair, which can be rectified using epilation before surgery to permanently remove the hair follicles, when the scrotal skin is used as a flap. Indeed, requiring genital hair removal is often a time consuming process, sometimes taking as long as one year, and is painful, too; most patients, in fact, ask for local anaesthesia before the epilation. As an alternative, the same scrotal skin can be used as a graft, and, in this case, hair follicles can be removed during the operation, but there is an extra potential risk for shrinkage. Regardless of whether the vagina is lined with penile skin alone, or with additional scrotal skin flap or graft, it always requires continuous dilation to avoid shrinkage or closing of the cavity. In addition, all penile skin lined vaginas require lubrication prior to dilation or penetrative intercourse. As an alternative to penile skin as the inner lining of the vagina, in order to solve problems in complicated cases, or to overcome the problem of shrinkage of the vagina, surgeons have developed surgical methods by which different parts of the bowel have been used to create a vagina. Advantages of this method are the amount of material available, and lining the vagina with mucosa. The mucosa lining and the natural mucous production, in fact, facilitate penetrative intercourse. As previously said, using part of the bowel as the inner lining of the

vagina can be very useful for patients who previously used puberty suppression therapy, and as a consequence, did not develop enough penile skin to be used as vaginal walls. A potential drawback of using a bowel segment might be an increased amount of vaginal discharge due to mucus production. In addition, this procedure is considered to be invasive surgery, with the potential for additional risks, such as bowel inflammation, obstruction of the bowel, etcetera.

Complications

The prostate and the rectum are anatomically attached, and separated only by a thin layer of tissue. When the cavity is opened, there is a risk of injuring the rectum in 1-2% of the cases (Selvaggi & Bellringer, 2011), and therefore creating what is called a “recto-vagina fistula.” This risk is higher when the patient has an unusual anatomy, or underwent previous surgery in the area. Recto-vagina fistula can occur either at the time of the surgery, or the patient herself can cause it during post-operative dilations. In the case of an occurrence of a recto-vagina fistula intra-operatively, this can sometimes, but not always, be repaired at the time of the first surgery. Alternatively, surgeons may choose to perform a temporary colostomy, in order to allow the fistula to heal; then the colostomy is closed usually a few months after the original surgery. This represents an important complication for patients, since they might be asked not to dilate the vagina in order not to further traumatise the area where the recto-vagina fistula is healing, with consequent shrinkage of the vaginal depth and width. Nevertheless, the management of the recto-vagina fistula (e.g., intra-operative closure, timing for colostomy and its closure, examination to perform, and possible discontinuation of the dilation regimen) constitutes an uncertain area, which is currently a matter of discussion by world experts, who have not reached a final agreement and have not provided standards of care guidelines. For patients who are not aiming for penetrative sex, or are not willing to dilate the vagina, or patients who previously underwent prostate surgery, genderconfirming genital surgery is still feasible without constructing a deep vagina, but creating a very short one (vaginal introitus), which is not functional for penetrative intercourse. The remaining genital structures, such as labia and clitoris, can still be fashioned as usual, and therefore the cosmetic outcome is similar to the one obtained with the standard technique. The opportunity for erogenous sensation remains, since a clitoris is formed as usual.

The Clitoris

The clitoris is usually formed by separating a part of the glans penis, together with a bundle of its accompanying nerves and vessels, from the rest of the penis. The glans penis is therefore displaced in front of the urethra, medially to the constructed labia. A part of the prepuce can be kept to partially cover the clitoris. Some patients might experience oversensitivity of the clitoris in the immediate postoperative period.

The Labia

Labia majora are formed from part the scrotal skin, which is similar to the labia majora of biological females in texture as well as hair coverage (Selvaggi et al., 2005). Construction of the labia minora is more of a challenge, as there is not an obvious source of similar material. Surgeons might use penile skin, scrotal skin or part of the urethra to shape it. No method has been proven to give the best results. Patients might request revision surgery to the labia majora and minora, mostly to reduce the bulkiness of the labia majora, or to create more symmetry.

The Urinary Tract

As the penis is removed during genital surgery, the urethra is significantly shortened. The urethra exits the body between the clitoris and the vaginal opening (see Figure 1). The aim is to shape the urethral opening and surrounding tissue so that urination is possible without difficulty. The most common problem is the spraying of urine, or having a urinary stream that is directed forwards. This complication is not always avoidable or correctable. Urinary stenosis is also possible. Due to the shortening of the urethra there is also an increased risk of lower urinary tract infections. There is, additionally, a risk of functional difficulties in the urinary system, such as an overactive bladder or incontinence. These may occur if there is damage to the nerves or because of a change of the bladder's position during surgery (Hoebeke et al., 2005; Kuhn, Hildebrand, & Birkhauser, 2007).

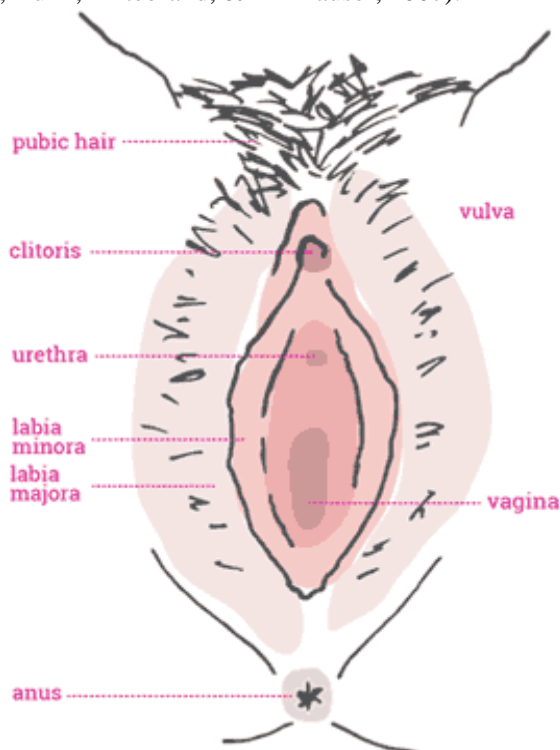


Figure 1. Female genital anatomy.

MANAGEMENT AFTER SURGERY AND OUTCOMES

Dilation Regimen

After undergoing genderconfirming genital surgery with the use of penile skin as inner lining of the vagina, the vaginal cavity is filled with packing which remains for five days. The packing presses the walls of the vagina against the surrounding tissue, allowing it to heal and attach. During this time the patient remains in the hospital. Following the removal of the packing, patients start the dilation. During the following weeks strenuous activity and penetrative sex are to be avoided. In this period, dilation is essential to keep the size of the vagina. This is performed using dilators of progressively larger size, made of plastic (e.g., silicone) or acrylic glass (e.g., Plexiglas) materials. The dilation regimen is most intense immediately after surgery and is scaled down with time. The dilation schedule varies between medical centres and depends on the surgical method. Most surgeons suggest using dilators 2 to 3 times a day for the first 3 to 6 months after surgery, and gradually reducing the frequency. One year after surgery, dilation is still recommended a couple of times per week for patients who are not engaging in penetrative sex. Dilation is time-consuming, and sometimes painful, due to the presence of scarred tissue, tension in the pelvic floor or yeast infections. Scar healing continues until a year after surgery.

Appearance

All vulvas and vaginas are shaped differently, in transgender women as well as females assigned at birth, and there is no standard appearance to aim for (see for instance Blank, 2011). The patient's original anatomy, i.e., size and distribution of all genital skin and fat, affects the final outcome (Figure 2.).

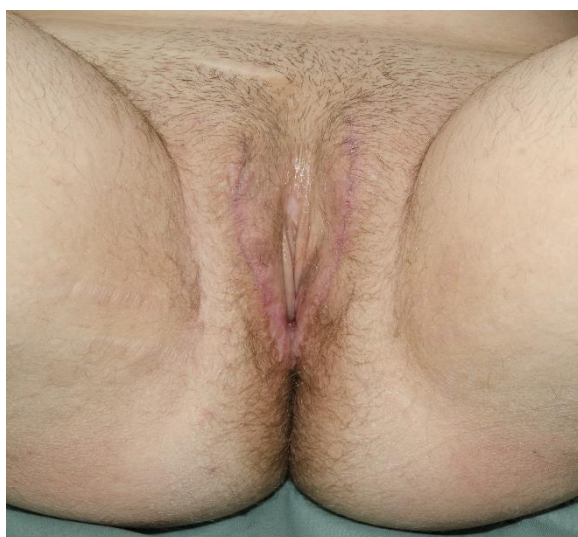


Figure 2. Vagina 8-months post-operatively (scars are starting to whiten).

Sexual Function and Genital Screening

Obtaining good sexual function takes time and requires practice. There is no guarantee that the clitoris will keep its sensation, and no guarantee that tactile and erogenous sensitivity from the different constructed parts will turn into orgasm. Orgasm, in fact, does not depend exclusively on the initial erogenous stimulation, but also on patients' personal experience, tastes, etc. To simplify penetration of the vagina, during both dilation and penetrative sex, relaxing the pelvic floor is essential. The basis for penetration without pain is the use of lubrication and continuous dilation. Since the prostate and Cowper's glands are still in place, these structures usually produce sperm-like fluid, which is usually secreted at the time of the orgasm (De Cuypere et al., 2005). Stimulation of the prostate might also contribute to the orgasm itself. Consulting a sex therapist is of help for many transgender women, when beginning to be sexually active. Sex with partners brings a risk of sexually transmitted infections, such as chlamydia, gonorrhea and HIV. There is no study confirming to what extent penile skin used for lining the vagina is protective against infections. Indeed, the mucosa of the bowel used as inner lining can be easily contaminated by infectious agents. To prevent sexually transmitted diseases, the use of condoms is recommended (World Health Organization, 2015). Vaginal examination by a gynecologist, plastic surgeon or urologist with experience in genderconfirming genital surgery, is recommended routinely following the surgery. Specifically, when the bowel is used as inner lining of the vagina, a general surgeon should follow up patients during the long-term as well.

A risk of benign and malign changes in the prostate remains in transgender women, since the prostate is not removed during surgery. However, the risk of prostate cancer is lowered due to the decreased or non-existent levels of testosterone in the body. The few cases of prostate cancer found in transgender women have occurred in patients starting hormone treatment late in life. Prostate check-ups are recommended for older transgender women and those with a family history of prostate cancer (Trum, Hoebeke, & Gooren, 2015).

LEARNING POINTS

- Genital Reconstructive Surgery for transgender women has developed over the years. Even though results are satisfactory and most of the patients report very high satisfaction rates, a perfect result, especially regarding functionality, is not achievable.
- The steps for genderconfirming treatment are regulated by the World Professional Association for Transgender Health, through what are called the Standards of Care.
- Surgeons are developing their own refinements of techniques; there is no evidence that one specific technique is better than another.
- Complications are possible and patients must be prepared for these, as well as for the post-operative recovery period, which requires a dilation regimen in order to maintain a healthy and functional vagina.

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Chapter 21

GENITAL RECONSTRUCTIVE SURGERY FOR TRANSGENDER MEN

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OVERVIEW

This chapter gives a comprehensive overview of the referral process for genital reconstructive surgery for transgender men, as well as the range of genital reconstructive surgeries available to them. Phalloplasty or metoidioplasty are fairly successful procedures for transgender men, but often the surgery needs to be carried out in different stages. Complications can be minimised by good pre-surgery preparation. Each patient will have an individual surgical solution tailored to their specific needs. In spite of potential risks and complications, satisfaction rates appear to be very high in this group of well-motivated patients.

In this chapter several terms will be used which may not have been described elsewhere, as they are specific to this chapter. We will try to avoid using complex terms, but this may not always be possible. We have listed the terms in alphabetical order so they can easily be found when reading this chapter:

- **Free flap:** is where a piece of tissue is harvested with a specific artery and vein, then disconnected from the body and transplanted to a distant site using microsurgical techniques to connect to new blood vessels at the recipient site.
- **Local flap:** is a piece of tissue where the blood supply is through skin that is always in contact with the donor site and is merely rotated to the recipient position.

- **Pedicled skin tube:** is a piece of tissue that is transferred in multiple stages from a distant donor site to the recipient site and has to establish a new blood supply, via the new skin connection, at every stage.
- **Pedicled flap:** is a piece of tissue with a very long artery and vein that can be tunnelled to the recipient site without the blood vessels being disconnected and reconnected.
- **Skin graft:** is just a piece of skin without any subcutaneous fat which, when placed on the recipient site, has to establish a new blood supply from the underlying tissue.
- **Full thickness skin graft (FTSG):** is a thick skin graft which includes the hair follicles and so will eventually grow hair in the recipient site. It looks cosmetically better and contracts less when fully healed.
- **Split skin graft (SSG):** is a very thin skin graft which does not include hair follicles and so will always be hairless. It contracts a lot more than the FTSG when healed, but is easier to look after in the healing phase.

INTRODUCTION

Getting Referred to a Surgeon

Transgender men looking to undergo genital surgery generally need to be referred to the surgical team by their transgender health clinic (TGC). The TGC clinicians will assess the patient's suitability for genital surgery based on the World Professional Association for Transgender Health Standards of Care (WPATH-SOC v7) (Coleman et al., 2012). There are six criteria that need to be fulfilled, which must be all confirmed in writing by 2 TGC clinicians. For hysterectomy (uterus removal), ovary removal or vaginectomy, only the first five criteria are required.

WPATH-SOC v7 genital surgery requirements:

1. Persistent, well documented gender dysphoria.
2. Capacity to make a fully informed decision and to consent for treatment.
3. Age of majority in a given country (Age 18 in United Kingdom).
4. If significant medical or mental health concerns are present, they must be well controlled.
5. 12 continuous months of hormone therapy, as appropriate to the patient's gender goals (unless the patient has a medical contraindication or is otherwise unable or unwilling to take hormones).
6. 12 continuous months of living in a gender role that is congruent with their gender identity.

For patients from abroad, or private patients, exactly the same criteria apply. If the TGC referral is written in a different language, then an official translation of the documents into the language of the operating surgeons is necessary. If needed, the patient can be reassessed by TGC specialists in the country of surgery. In the United Kingdom (UK), we offer patients 2

broad groups of genital reconstructive operations (phalloplasty). The large majority of our patients wish to have a normal sized phalloplasty, i.e., similar to the penile size of a cisgender male. We have a smaller group of patients that request a metoidioplasty (mini phalloplasty). The latter basically converts the clitoris into a small penis. Our preference in the UK, as surgeons, is for transgender men to have been on testosterone therapy for at least 24 months, which is longer than stated in criterion 5 of the WPATH-SOC. A period of two years has been chosen, 1) as we believe that maximal clitoral growth from testosterone stimulation is achieved in this period and, 2) in order to allow enough time for sufficient skin hair growth in the potential donor sites for normal sized phalloplasty, so we can avoid using hairy skin for the reconstructed urethra.

Preparing for the First Surgery Consultation

Most transgender men attending their first surgical consultation will have done some research into genital surgery, either via the Internet or through friends. It is important to understand that every surgical unit does the phalloplasty or metoidioplasty surgery slightly differently, so what they may have seen may not be applicable to that surgical unit. We certainly do not expect patients to make their minds up on the first visit, as often there is too much information to take in and there are many options to consider. During this first visit we discuss with the patient what their genital requirements are and we also examine them to see what donor sites are suitable to use. Following this, a bespoke surgical solution is offered for them to consider. It is not uncommon for patients to change their minds a few times before settling on the option of their choice. Typical requirements that are considered are listed below.

Typical patient requirements (in no particular order):

- Realistic look as male genitalia
- Sexual and/or touch sensation of the phallus
- Standing to void (pass urine)
- Ability for penetrative sexual intercourse
- Trouser filler or bulge (locker room appearance)
- Minimal donor site scarring or reduced function
- Least visible potential donor site
- Minimal number of operations and time off work/studies
- Minimal potential complications
- Non-female looking

We recommend that patients do some preparation work before their first surgical consultation in order to avoid unnecessary delays. Smoking is the chief cause of poor wound healing and skin graft and total phallus loss. Therefore, it is an absolute requirement that the person has stopped smoking for at least 6 months before the first operation, and throughout all the phalloplasty surgery. Cigarette smoke causes reduced blood flow to the tissues and,

therefore, impairs healing. Secondary smoking (inhaling other people's cigarette smoke) can also be a problem, and some of our non-smoker patients can register as smokers on testing. The best solutions are to encourage those smoking in the transgender man's household to do it outside the house, or avoid situations where secondary cigarette smoke inhalation could be a problem. Using vaping or e-cigarettes is permissible, but often the fluid contains nicotine, which also reduces blood flow to body tissues. We recommend that nicotine, whether via skin patches, vaping or oral intake, should be discontinued 1 month prior to surgery and it is permissible to restart nicotine use 1 month after discharge. Persistent cigarette smoking after phalloplasty surgery is completed can also lead to shrinkage of the phallus and/or urethra in the long term, so it is best to stop altogether (Sinha, 2010).

To make a normal sized phalloplasty (shortened to phalloplasty for the remainder of this chapter), we need skin, for sensation and appearance, and some subcutaneous fat for bulk. Our weight criteria is a Body Mass Index (BMI) between 18 and 30 which, we believe, is generous. Overweight patients will need to lose weight and underweight ones will need to gain it. The complication rates are significantly higher when patients are outside these BMI limits. There are, however, always some patients who are fit and healthy but fall outside these limits. For example, people with a large amount of muscle, such as body-builders, can have a BMI greater than 30, in spite of not having much subcutaneous fat. There are also some patients with a BMI under 18, who may have very little muscle mass, but adequate subcutaneous fat. We assess patients individually for optimal results. For metoidioplasty, it is better to have a BMI of 25 or less, as the mini-phallus will look much bigger proportionally if there is less abdominal and pubic fat.

As transgender men are on life-long testosterone therapy, they require at least annual monitoring, in view of the risk of developing too many red blood cells (this is called polycythaemia, or thickening of the blood). Polycythaemia makes the blood sticky and prone to clotting. This is another risk factor for a phalloplasty failing to survive. A simple full blood count (FBC) by the general practitioner is all that is necessary to check for polycythaemia. If the condition exists, then the testosterone dosage will need to be changed, or the patient can donate blood on a regular basis instead.

For phalloplasty, it is imperative to use non-hairy skin for the urethra. Hair in the urethra leads to increased urinary tract infections, trapping of debris in the hairs, stone formation and increased urinary complications in general. If the donor site is hairy, then either laser or electrolytic hair removal will be necessary to reduce the hair density. A 70% reduction in hair density is sufficient and can usually be reached after 1 year of hair removal therapy. We also wait for 3 months after the last hair removal session, to confirm that hair regrowth is minimal, before booking a surgery date. This extra time for hair removal also needs to be incorporated into surgical planning.

TYPES OF GENITAL SURGERY

Types of genital reconstruction offered at our unit in the United Kingdom (UK)

Table 1. Surgical operations available for transgender men

Phalloplasty	<ul style="list-style-type: none"> • Radial artery free flap phalloplasty 70% (RAP) – forearm • Abdominal or pubic local flap phalloplasty 20% (PP) • Antero-lateral thigh free or pedicled flap phalloplasty 10% (ALT) – outer thigh
Metoidioplasty	<ul style="list-style-type: none"> • Mini-phallus (local skin flap)
Other types of phalloplasty (available in other surgical units)	<ul style="list-style-type: none"> • Muscular Latissimus Dorsi free flap phalloplasty (MLD) – side of chest/back • Gracilis pedicled flap phalloplasty – inner thigh • Fibular free flap phalloplasty – lower leg • Deltoid free flap phalloplasty – upper arm/shoulder • Gillies pedicled tube phalloplasty – abdomen

Prior to 1984, the only method of phalloplasty was the Gilles local pedicled tube flap from the abdomen (Maltz, 1946; Gillies & Harrison, 1948). This was a multi-stage operation where skin was double rolled into a sausage shape on the abdomen, with a skin urethral tube, and gradually moved in an ‘octopus-like’ fashion, step by step, to the groin, to form the phallus. This type of phalloplasty required multiple operations and had no skin sensation, a poor quality urethra and a poor cosmetic appearance. Chang and Hwang (1984) published the first account of the radial artery forearm free flap phalloplasty with integrated urethra and nerve connections in 1984 and, thus, started the modern era of sensate free flap phalloplasty. These required fewer operations, produced better sensation and better cosmetic appearance and, because of the dedicated blood supply, were more durable in the long term.

As can be seen from the table above, nowadays, there are different techniques and many potential donor sites that can be used for penile reconstruction. However, the only sites where sufficient skin can be taken to form the phallus and urethra from a single piece of tissue are the forearm and outer thigh (in suitable patients). In all other types of phalloplasty, the urethra has to be made either from skin grafts or from a separate free flap. As described above, a skin graft is just a piece of skin, without any subcutaneous fat, which, when placed on the recipient site, then has to establish a new blood supply from the underlying tissue. This normally takes a week, so there is potential for skin grafts not to survive if the new blood supply does not form quickly enough. Skin graft loss is less likely to happen if the recipient site has plenty of blood flow, e.g., muscle, and more likely to happen if the recipient site has poor blood flow, e.g., fat or scar tissue. Also, if anything in the future disturbs the blood supply of the underlying tissue, the skin graft shrinks rapidly.

Success of tissue transfer techniques (top to bottom in increasing order of successful outcome):

- Skin graft to scar
- Skin graft to fat
- Skin graft to muscle
- Pedicle skin tube
- Local skin flap
- Free flap with specific artery
- Pedicled flap with specific artery

HOW TO DECIDE WHICH OPERATION TO HAVE

In terms of a decision-making algorithm for patients, the first choice to make is between phalloplasty and metoidioplasty. The second is whether passing urine standing is of critical importance or not. These two factors determine the appropriate surgical pathway, following which the rest of the surgical options, i.e., scrotoplasty, removing/hiding female parts, glans sculpting and penile/testicular prosthesis, can be easily incorporated, as required, into the planned surgical pathway. Generally, if passing urine standing is important, the urethra will have to be made from a forearm free flap, unless the patient is suitable for a combined phallus and urethra from an antero-lateral thigh flap which does not require the use of the forearm.

In terms of phallus size, we normally use skin measurements of 14cm long and 12 cm mid-shaft girth or circumference. However, once the phallus is made, the end result may be bigger or smaller, depending on the weight of the subcutaneous fat and the elastic properties of the skin. Heavy fat and stretchy skin will result in a bigger phallus, whilst minimal fat content and less elastic skin will result in a smaller phallus. It is important to realise that a phalloplasty stays the same size when erect or flaccid, unlike a natural penis which varies in size between flaccid and erect states. So, having a very large phallus may require a change in clothing size.

Free and pedicled flaps often come with sensory nerves which gave touch sensation in the original donor site. If these nerves are present in the flap, then we routinely connect them to one of the clitoral nerves first. The 2 large clitoral nerves carry sexual and touch sensation to the clitoris. We keep one nerve on the clitoris, to retain sexual sensation in the clitoris, whilst routing the other clitoral nerve to the new phallus. If there is more than 1 nerve in the phallus flap, then the other nerves are connected to a groin nerve (ilio-inguinal nerve), which only has touch sensation. The connected nerves will gradually grow into the flap nerves and can take up to 2 years to work. If the new clitoral nerve connection works, then the patient should be able to achieve orgasm from manipulating the phallus. The RAP (radial artery free flap) phallus has 2-3 nerves and so has the best potential sensation. About 60% of our patients will have patchy sensation, 30% will have full sexual and touch sensation and 10% will have no sensation after 2 years (Garaffa, Christopher, & Ralph, 2010). The ALT (antero-lateral thigh free or pedicled flap) and fibula flap phallus only have 1 sensory nerve, so, at best, get patchy sensation. The PP (abdominal or pubic local flap) phallus has no dedicated nerves, but will always have sensation derived from the clitoris in the bottom half, although it will be numb in the top half. The MLD (muscular Latissimus Dorsi free flap) and Gracilis flap phallus both only have a motor nerve, so sensation is poor.

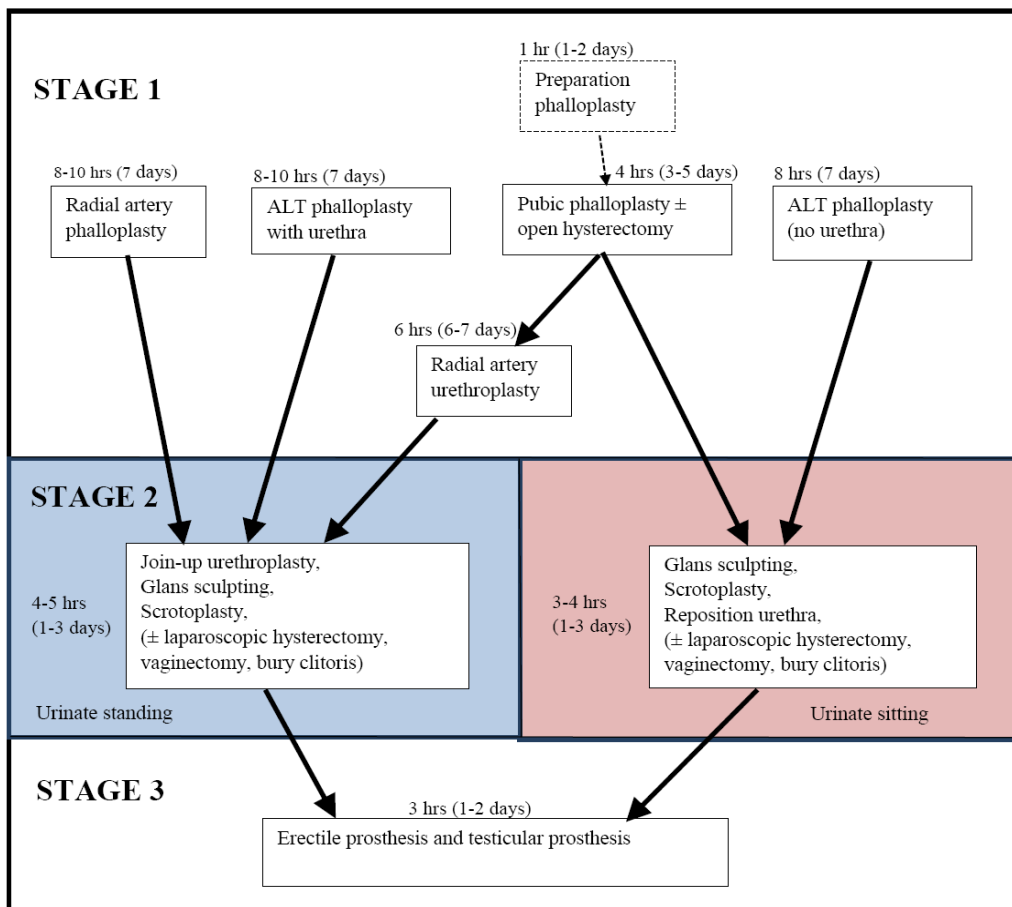
SURGICAL STAGING FOR PHALLOPLASTY

We divide the phalloplasty surgery into manageable stages, so that the operations are not too complicated and patients' bodies can get a rest in between each stage, which is important.

- STAGE 1: Formation of the phallus and/or urethra in the phallus
- STAGE 2: Glans sculpting, scrotoplasty and connecting phallic urethra to bladder
- STAGE 3: Erectile and testicular prosthesis

Each stage may consist of more than one operation, depending on what phalloplasty options are chosen. We always finish the urethra before adding any testis/erectile prosthesis to reduce infection risk. If there are complications, or an unsatisfactory outcome at any stage, we endeavour to correct it at the next stage, if practical. If it is something more urgent, then extra operations will be needed. Generally, operations are scheduled at least 3 months apart for full healing, so it may take 12-18 months to finish all the stages. If there are delays due to work/study/holiday commitments or complications, then the time may be much longer. The diagram below shows the various phalloplasty surgical sequences available at our surgical unit. Each operation has listed the average operative time in hours, and typical post-operative hospital stay in days. For Stage 1 surgery, it usually takes 6 weeks before patients are likely to be fit for work and, sometimes, even longer. For Stage 2, patients normally have a urinary catheter for at least 3 weeks, so it is advisable not to return to work for 3-4 weeks, or at least until the catheter is removed. In Stage 3, patients are usually fit to return to a non-manual job by 2 weeks and manual job by 4 weeks postoperatively.

Typical surgical staging in the United Kingdom (from 'Patients' guide to phalloplasty' on www.andrology.co.uk) – average operative time (hrs), average post-operative stay (days)



STAGE 1 – MAKING THE PHALLUS

Radial Artery Free Flap Phalloplasty

The radial artery phalloplasty (RAP) operation is, by far, the commonest free flap phalloplasty technique worldwide (Figure 1.). The forearm skin is soft and pliable, with a large and reliable artery and multiple sensory nerves. There is a modest (<1cm) amount of subcutaneous fat, so the phallus will not be too wide when made. Most importantly, the forearm skin on the little finger side of the forearm is, usually, not hairy and is ideally suited to making the urethra. This is a tube in tube technique.

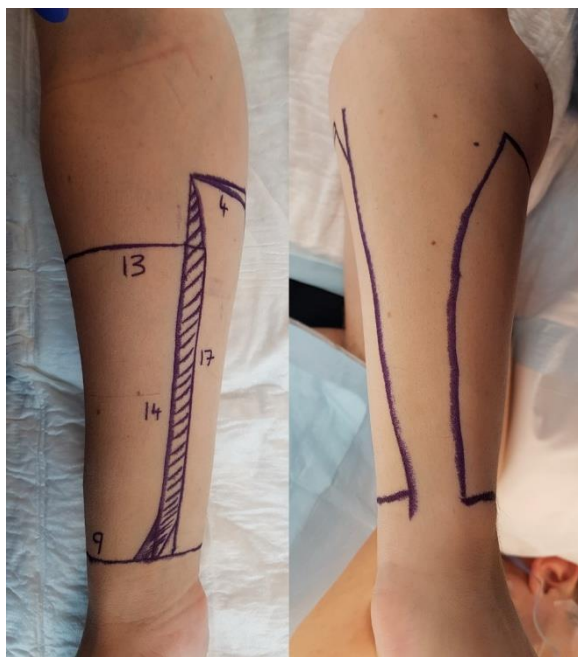


Figure 1. Forearm skin marking.

The urethra portion is about 4 cm wide and the larger phallus portion is about 12-13cm wide (Figure 2.). The urethra part is rolled with the skin side on the inside, and the phallic portion is then wrapped around the urethra with the skin on the outside. The whole phallus is then disconnected from the forearm and transplanted to the groin area, using microsurgery techniques to connect blood vessels and nerves (Doornaert et al., 2011). The lower end of the urethral tube is placed next to the clitoris for a future connection to the bladder.

Whilst the patient is in hospital, the nurses will check the pulse in the phallus (using an ultrasound Doppler machine) very frequently, initially, and less often towards the end of the hospital stay. If there is no pulse, it means the blood vessels are blocked and an immediate return to the operating theatre is needed to unblock the vessels and rescue the phallus. Our phallus loss rate for free flaps is about 3%, with the main risk factors being smoking, being overweight and having too many red blood cells (polycythaemia). If a phallus cannot be salvaged, then the dead tissue is removed to allow quicker recovery. The existing abdominal

vessels and nerves are preserved, if possible, for the next phalloplasty, after 6 to 12 months, once the patient is mentally and physically ready to proceed.



Figure 2. Forearm skin graft.

Because the forearm donor site is very visible, we use a full thickness skin graft (FTSG) rather than a split skin graft (SSG), to cover the raw muscle on the forearm. We believe FTSG gives superior cosmetic results when compared to SSG, although it is harder to look after. The normal FTSG donor site is from the lower buttock crease, i.e., very similar to a bum tuck operation. The buttock incision can be closed primarily as a hidden scar. We advise patients that it will be a little uncomfortable to sit bolt upright for a couple of weeks afterwards. If there is spare skin on the abdomen, we can use that for the FTSG, but we have found the complication rate of haematoma (blood clot under the skin) is a little higher, and can impact on the new blood vessels causing problems with the blood supply of the new phallus, so we prefer to use the lower buttock crease. The FTSG skin comes with hair follicles and is considerably thicker than SSG, which has no hair follicles. As a result, once healed, hair should start growing from the FTSG, which helps disguise the forearm scar. SSG looks whiter, is more transparent and shrinks a lot more than FTSG, and so is more likely to restrict forearm/wrist movements. Some patients like to place a tattoo on the FTSG and this should be fine, once the skin graft and scars are stable, i.e., after 1 year. We shape the normal skin edges in such a fashion that there is a smooth contour onto the FTSG and no obvious ‘step effect’ visible (Figure 2.).

Because most of the veins will have been removed from the forearm, there is a tendency for the hand to swell, as blood cannot return to the upper arm so easily. For most patients, the remaining veins will increase in size over about 6 weeks and the hand will return to normal dimensions. In a small proportion of patients, the hand swelling can persist for up to a year. In this situation, there are special compression gloves and techniques of bandaging the fingers and hand to reduce swelling and improve function. We expect hand function to be about 90-95% of what it was pre-surgery, by about 6 weeks after surgery in the majority of patients.

There is a special test of the arteries at the wrist, called the Allen test, which the surgeon will perform at the surgical assessment. This tests whether the remaining forearm artery is big enough to supply blood to the hand, once the radial artery is removed for the phallus. If the Allen test is poor, the surgical team will arrange a special ultrasound of the arteries of the forearm, to see whether the RAP operation can be done or not. If not, then an alternative type of phalloplasty must be chosen.

Sensation on the hand should be normal, post-operatively. The radial nerve that runs just under the skin graft at the wrist, near the thumb, sometimes gets trapped in scar tissue and can give rise to pain or numbness on the back of the thumb skin, which can be irritating. We can release this nerve by adjusting the scar, if needed. The skin graft on the forearm should be completely numb, as all the sensory nerves are now on the phalloplasty. However, many patients report apparently normal touch sensation over the skin graft. This is because nerve signals from pressure sensors in the muscle are being re-interpreted as touch by the brain. A similar situation may occur in the phallus, as the groin/ilio-inguinal nerve normally gives sensation to the scrotum and inner thigh, so touching the phallus may give rise to apparent sensation in the inner thigh. Usually the brain resets itself after a time, so the touch signals are 'felt' in the correct anatomical position. If a patient has lost a lot of weight and there is a lot of saggy skin on the abdomen and pubic area, then the position of the base of the intended phallus over the pubic bone becomes very loose. This will cause problems with excessive stretching/movement of the phallus blood vessels and, eventually, problems with placing the erectile device. In this situation, we would excise all the excess lower abdominal skin first and do an open hysterectomy. This will leave a flat and secure pubic area for attaching the phallus at a later stage.

Post-operative care in the community is relatively straightforward. The FTSG dressing on the forearm is Mepitel™ or Adaptic™ (silicone sheet), which is changed on a weekly basis by the local nurse. The silicone does not stick to the FTSG and improves the cosmetic appearance of the skin graft. If there are areas of poor skin graft survival (blackened areas), then these can be removed by more frequent dressing, using an alginate based dressing (Kaltostat™, Aquacel™ or similar products), which can absorb a lot of fluid. If the areas of skin graft loss are small, they can be left to heal by themselves, but if a large area is involved then we would put a new SSG on, once the underlying tissue is pink and healthy looking. Infections are diagnosed by taking a wound swab for microbiology and patients are treated with an appropriate antibiotic. Soaking the forearm with saline, or in a salt bath, for 10-15 minutes every day or two is an excellent way of keeping things clean without using a lot of antibiotics, as the salt inhibits bacterial growth of the common skin infections. Either our clinic nurses or the local nurses would advise on this, as necessary. Buttock and abdominal phallus incisions are usually inspected a couple of times a week by the local nurse. It is important to support the phallus with some padding taped to the abdomen, so it is not left hanging by the skin sutures, for the first three weeks. After that, the skin incision around the phallus base is strong enough to support the weight of the phallus and it can be left to hang freely. Once the forearm skin graft has fully healed, we recommend patients moisturise the FTSG daily, as that softens the skin and makes it more elastic. Also, we recommend a thicker silicone sheet (20cm x 20cm Silgel™ or similar brand) to be firmly compressed with a bandage to the forearm for 12 hours per day, which will further improve the appearance. These large silicone sheets can be washed and reused. We advise not to expose the FTSG to strong sunlight for the first two years, as it will get sunburnt very easily. Putting on a lot of

weight after surgery will give rise to poor cosmetic appearance of the forearm, because subcutaneous fat can only be deposited under normal skin and not the FTSG. Consequently, there will be a large dent in the forearm.

Pubic Phalloplasty (PP)

In this operation, 3 sides of a shaped rectangle are incised, with the intact fourth side, or base, centred on the pubic bone just above the clitoral skin fold (Bettocchi et al., 2004). The blood supply comes from the skin at the clitoral side. If a patient has a transverse lower abdominal scar, e.g., from a previous open hysterectomy or caesarean section, then the scar interrupts the blood supply to the belly-button end of the rectangular flap, which may then not survive. In our experience, if the transverse scar has only been incised once and a long time ago, the blood supply is usually adequate. However, if the scar has been opened more than once, we find the abdominal flap usually does not survive. So, if a patient has had multiple abdominal operations in the past, they will not be suitable for a pubic phalloplasty and must choose a different phalloplasty operation. For safety, if there is a transverse scar, we would mark out the proposed pubic flap and lift it up and replace it on the abdomen, and then wait and see if it survives before performing the actual phalloplasty. This is called a preparation for phalloplasty.

Once the three sides of the shaped rectangle are incised, the flap may need thinning of the fat before being folded in to form the phallus. Because of the design, the PP phallus has the longitudinal suture line on the belly side of the phallus, whereas the RAP phallus has the suture line on the underside. The tip is shaped in such a way as to give a rounded end, rather than square. We would routinely offer an open hysterectomy and bilateral ovary removal at the same time, as the abdomen is already open at the correct site. In order to close the large abdominal skin defect, we move the umbilicus down an inch or two, and also rotate skin and fat from the side of the lower abdomen in to the pubic area. This results in a long scar from hip to hip, which is easily concealed by underpants (Figure 4.). Patients are advised that the pubic hair is no longer over the pubic bone, but under the base of the new phallus.

If the phallus is left hanging downwards, there is a kink on the underside of the phallus skin, which interrupts the blood supply. It is very important to keep this phallus pointed upwards on the abdomen for the first three weeks, which is long enough for the phallus blood supply to become well established. Once the first three weeks are finished, the phallus can be left to point downwards, and it is important for it to definitely point downwards to the floor, when standing, before the next stage of surgery is planned. If necessary, an extra operation can be performed to force it to point downwards. As stated earlier, this type of phallus is completely numb on the top half. Post-operative care in the community is again fairly straightforward. The main issue to look out for is haematoma (collection of blood), or lymphocoele (collection of clear tissue fluid), under the abdominal skin. Usually, the latter can be drained with a needle and syringe in outpatients, as and when needed, but haematoma would need surgical drainage (Figure 3.).



Figure 3. Pubic phalloplasty.

Antero-Lateral Thigh Flap Phalloplasty (ALT)

The thigh flap can be designed with or without a urethra (Felici & Felici, 2006). If the subcutaneous fat is too thick, then this flap is not suitable for phalloplasty. If a urethra is required, then the thigh skin must be relatively hairless or the urethral skin segment will need hair reduction in the same way as for the forearm. Most patients are not suitable, so this phalloplasty is rarely offered. The subcutaneous fat needs to be 1cm thick, or less, to make an integrated urethra. Because the feeding artery and veins are quite long, and come from near the hip joint, it is usually possible to do a pedicled flap. The skin paddle is tunnelled under the leg muscles to the groin and the phallus made in-situ, without microsurgical artery and vein connections. Only the single sensory nerve will need connecting to one of the clitoral nerves and the bottom end of the urethra tube to the side of the clitoris, as in the RAP phallus. Normally, it is possible to thin the fat off this flap when it is smaller without any problems, but the phalloplasty flap with urethra is so large that this increases the chance of losing the skin at the edges. So, we prefer patients to lose weight before surgery, instead. In this situation, the subcutaneous fat thickness is more important than the BMI. The flap design is exactly the same as for the RAP phallus, i.e., tube within tube design with integrated urethra. If a phallus is required for sexual intercourse only, and the patient is happy to pass urine sitting, then the flap design is the same as for a PP phalloplasty. Because this flap is smaller in surface area, it is safer to thin down the fat, if needed (Figure 4.).

There are a number of reasons why a patient might choose an ALT phallus over a PP phallus, when it is required for sexual intercourse only. These reasons are listed below:

- Sensory nerve connection
- Can be made longer e.g., 16cm, if vessels permit
- Little fat on abdomen
- Transverse abdominal scar

Once the phallus is made and placed in the correct position in the pubic area, the donor site on the thigh is closed. It is important to know that, in 85% of cases, the artery to the ALT

flap comes through the thigh muscles, which have to be cut open to release the vessels. In lay terms, this is exactly the same as a severe muscle tear/sports injury. The muscle is repaired, but will take some weeks to heal completely. We advise patients that simple walking is the best form of exercise in the first month or two, depending on how quickly they heal and how much muscle is cut. The other 15% of the time, the feeding artery comes between the thigh muscles and the patient has a much quicker recovery, as there is little muscle healing to happen. The raw muscle surface is covered with SSG taken from the other thigh, which heals quickly. The thigh muscle tends to bulge out a lot, once the skin flap is removed. The SSG type of skin graft contracts much more as it heals and helps keep the muscle contained in the thigh. FTSG does not work well, as there is significantly more movement as the patient walks, and it is, therefore, more likely to fail. The cosmetic appearance is not as good as for the RAP forearm, but the thigh donor site can easily be hidden under a pair of Bermuda style shorts (Figure 4.). As with all skin grafts, there is normally no sensation on the skin graft area. Post-operative care is much the same as for the RAP operation, except the thigh flap donor site will need dressing changes twice a week rather than weekly, as it oozes more fluid and walking disturbs the position of the dressing. The SSG donor site from the other thigh can usually be left to dry and scab over after about two weeks and, once that happens, it usually stops being sore. It will eventually heal as discoloured rectangular patches and the normal hair will grow back. Because the thigh muscles are so big, there is little in the way of reduced function after three months.



Figure 4. Thigh skin graph.

Radial Artery Free Flap Urethroplasty (RAU)

For patients who have an existing phallus without integrated urethra, e.g., PP phallus or Gilles phallus from elsewhere, the RAU operation allows us to insert a good quality urethra with a dedicated blood supply (Garaffa, Ralph, & Christopher, 2010). This urethra will be as successful in the long term as the RAP phallus, because it has a dedicated blood supply. As a bonus, the RAU blood vessels also improve the blood supply of the existing phallus and make it more resistant to damage. A piece of skin 4cm wide and slightly longer than the phallus is harvested from the middle of the forearm, rather than on the little finger side. This is so that it overlies the radial artery underneath, which is harvested with the flap. This is then rolled, skin side in, and tunnelled into the existing phallus from tip to side of the clitoris, just as in the RAP operation. Microsurgical artery and vein connections are made. In about 50% of cases, there is a skin sensory nerve with the flap. If so, we would connect it to one of the groin nerves for touch sensation, which may then grow into the phallus, which is a bonus. The forearm defect is covered with SSG from the thigh, or FTSG from abdomen or buttock, depending on patient preference and skin availability. The forearm scar is a lot smaller and easier to conceal than for the RAP operation and, therefore, may be more acceptable to some patients.

Other Types of Phalloplasty

We do not perform these types of phalloplasty, but will include some basic information in this chapter. The MLD phallus is made from the skin/fat on the side of the chest/back and includes the latissimus dorsi muscle (Perovic et al., 2007). This is the muscle used during a tennis serve. The donor site defect can usually be closed primarily but, sometimes, will need a skin graft. There is some limitation of shoulder movement afterwards. The urethra is made from skin grafts which are less reliable than free flaps. They are usually much larger than the RAP phallus. The gracilis flap phallus is shorter than the RAP phallus and the urethra is either made from skin grafts or, sometimes, from a groin free or pedicled flap. This groin flap is difficult to harvest and the length of usable skin is variable. The fibula flap phalloplasty also has a urethra made from skin grafts. Sometimes the fibula bone is taken with the flap, to provide rigidity in the phallus, but the bone tends to get absorbed so is not as reliable in the long term. The deltoid flap comes from the upper arm and has limited skin area, giving rise to a shorter phallus, and will also require a skin graft type urethra. The same is true for the Gillies pedicle tube phalloplasty. In our opinion, any urethra made from skin grafts is inherently unstable in the long term, hence our preference for only using free or pedicled flaps for urethra. This is also the reason we do not offer these alternative phalloplasty techniques.

Summary of Stage 1 surgery

Our default option for Stage 1 is a RAP operation, unless the forearm is unsuitable medically, or the patient cannot have a visible scar on the forearm. If the RAP is not acceptable, then PP or ALT phalloplasty will be the alternatives in our unit.

STAGE 2 - CONNECTING THE URETHRA, GLANS SCULPTING, SCROTOPLASTY AND REARRANGING FEMALE PARTS

Once the phallus has healed from Stage 1, consideration is made for Stage 2. At this stage, any remaining surgical corrections are performed that arise from Stage 1. Typical problems from Stage 1 include: curvature of the phallus from scar contracture, loss of phallus skin/bulk at the edges of the flap, urethral fistula (holes) and urethral strictures (narrowings). Major corrections will have been performed, prior to Stage 2, as a separate operation.

Join-up Urethroplasty (Urethral Hook-up)

The urethral opening at the side of the clitoris is connected to the native urethra in the vulva by folding the non-hairy inner labial skin and part of the clitoral hood inwards from the sides, and a small piece of vaginal skin upwards from below, so the scrotal part of the urethra is formed over a catheter (Rohrman & Jakse, 2003). A suprapubic catheter is also inserted through the lower abdomen into the bladder, to provide an alternative urine drainage route. Any remaining inner labial skin is excised, leaving just the hairy outer labial skin to form the scrotum. The main complication from this operation is urethral fistula, which normally presents as a hole in the vaginal end of the urethra, so the patient has to void sitting. Without vaginectomy, this complication occurs in about 30% of cases in our unit, but with vaginectomy, it drops to 2%. If there is a fistula, then if it does not close spontaneously by three months, we perform a fistula repair operation. The phallus catheter is removed after one week and the patient is not allowed to void for three weeks by blocking the suprapubic catheter. The sutures in the new urethra are water soluble, so we discourage earlier attempts to pass urine. If successful, the suprapubic catheter can be removed by the local nurse.

Perineal Urethra

For those patients who do not wish to void standing, they have a choice of leaving the native urethra and vaginal opening intact, or having a vaginectomy and bringing the urethral opening forwards, to the bottom of the scrotum, by about 3 cm. For the second option, a short funnel of non-hairy skin is made, to extend the urethra to the surface. There are no visible female parts and the urethral opening will be hidden by the scrotum as it overhangs. We would normally just insert a urethral catheter until this has healed, which can be removed locally.

Scrotoplasty

The male scrotum is made from the outer hairy labia majora. The lower third of the labia majora are mobilised completely, rotated upwards and away from the body, and sutured together to form a single sac. It is only possible to get a neat, single scrotal sac if both vaginectomy and hiding of the clitoris are done at the same time. If either the clitoris or

vagina is left untouched, then the scrotum will always be split into two parts. When the two sides of the scrotum are sutured together, it will result in a male perineal appearance, i.e., there will be a flat area above the anus before the scrotum starts. The decision about whether to keep the clitoris or vagina visible is a patient choice. We advise patients to stretch the scrotum manually from four weeks after the operation, to make it as big as possible.

Glans Sculpting

A flap of skin is elevated near the tip of the phallus, and the incision runs obliquely from the front to the back of the phallus like a normal glans (head) of penis. The skin is rolled into a rim and a skin graft is placed on the raw fat which has been exposed (Fang et al., 1998). As this heals, the skin graft contracts, giving rise to a shaft, narrower neck and prominent head, which is a good simulation of a circumcised, natural penis. The oblique incisions do not meet completely at the back, which simulates the frenular area on the underside of a natural glans penis. The dressing needs changing weekly, for a couple of weeks, and, once the skin graft is healed, it can be left exposed. Even if part or all of the skin graft does not survive, the way it heals still gives a reasonable cosmetic appearance.

Burying the Clitoris

Many transgender men do not want any reminder of female parts on the outside. The majority choose to have the clitoris hidden, for a better cosmetic look. The clitoris is mobilised and placed upward near the base of the phallus. The clitoral head skin is removed and is sutured to the underside of the phallus/phallus base skin. The two raw surfaces heal and stick together by fibrosis. As long as the patient does not put on a lot of weight, it should stay in this position. It normally takes about 4 weeks to start working again, and is more difficult to find and stimulate as it is slightly deeper, but it should reach orgasm normally.

Laparoscopic hysterectomy and bilateral ovary removal

In our unit, we prefer not to perform open hysterectomy with a free flap phalloplasty, as it increases patient discomfort and slows post-operative recovery. Instead, we offer a laparoscopic (keyhole) hysterectomy as part of Stage 2. This is done first and under the same anaesthetic, we then go on to carry out all the other parts of the Stage 2 surgery. Recovery after laparoscopic surgery is much quicker than for an open hysterectomy.

Ablation Vaginectomy

As with the clitoris, many transgender men just want to get rid of the vagina for psychological reasons. Obviously the vagina cannot be removed if a hysterectomy has not

already been performed. We do not actually physically remove the vagina, as that is a major operation and causes significant blood loss and complications. Instead, we use a hot electrode and, literally, vaporise the skin lining of the vagina while preserving the vaginal muscle. The vaginal skin makes the fluid which bothers patients and, once it is gone, everything dries up. The vaginal muscle is part of the pelvic floor which supports the bladder and is important in continence, so it is useful to preserve it. The outer vulva opening is completely excised and the opening closed, giving a male perineal appearance. The cavity in the vaginal space will fill slowly with some blood and, then, gradually scar up completely after a few months. There is minimal bleeding during this surgery and very little risk of bladder or rectum injury. Occasionally, we will miss some vaginal skin which may then form small cysts of fluid inside. If small, they can be left alone. Large ones, that bulge through the perineum, can be re-operated to further ablate the stubborn vaginal skin, which usually solves the problem. The re-operation rate is pretty low, at about 1% of patients. If patients are too active after the operation, it bleeds much more quickly into the vaginectomy space and they may present with perineal pain from a large haematoma, which will require surgical drainage.

Summary of Stage 2 Surgery

After Stage 2 has healed, the patient should be able to pass urine standing (if requested) and should have a nice male appearance to the phallus and scrotum. The phallus should be completely straight and so ready for insertion of the erectile device. Recovery is much the same whether a vaginectomy and laparoscopic hysterectomy is performed or not, as it is largely dependent on when the catheter comes out, i.e., after three weeks.

STAGE 3 – ERECTILE AND TESTIS PROSTHESES

The reconstructed scrotum normally only has space for two items. This can be either two testicular prostheses, or a testis prosthesis and a pump of an inflatable erectile device. The testis prostheses we currently use are made of silicone semi-solid gel (Polytech™) and should last a lifetime, assuming there is no infection. Infection rates are very low (<1%). For phalloplasty, we use either medium (~20ml) or large (~30ml) testis prostheses, depending on scrotal space.

For erections, we normally use a 3-piece inflatable penile prosthesis, which is the same system used for natal men with intractable erectile dysfunction. This consists of three components: 2-way pump, inflatable cylinder(s) and reservoir balloon (Coloplast™ Titan and AMST™ 700CX devices). The reservoir balloon is placed inside the abdomen (between bowel cavity and abdominal muscles, but not in contact with the bowel), via an appendix type incision. The connecting tubing is then tunnelled down to the pump in the scrotum. The cylinder is attached to the pubic bone with a Dacron™ (type of nylon) socket. The nylon socket is sutured to the bone and, once healed, is firmly stuck to the bone (Hoebcke et al., 2010). The cylinder sits in the socket like a candle-holder. This ensures the erect phallus is firmly attached during sexual intercourse. A similar nylon cap also protects the end of the cylinder in the glans of the phallus. Pressing the pump on the inflate section pumps fluid from

the reservoir to the cylinder. Once sex is finished, the deflate button is activated, which allows fluid to drain back to the reservoir. There is a relatively high rate of infection (10%) in the first four to five weeks and, if infected, we normally just remove the prosthesis as taking more antibiotics has little effect (Ralph, Garaffa, & Christopher, 2010). After 6 months, a new prosthesis can be inserted. Patients are discharged with the device partially inflated, to keep the cylinders in the correct position, and are seen in clinic after a week to deflate it. Once the scrotum is less sore, they can be taught to manipulate the pump. The bone sutures on the pubic bone take about six to eight weeks to heal, following which patients can use the device properly. Unfortunately, all mechanical systems will fail eventually and a penile prosthesis is no different. We advise patients that the mechanical failure rate is about 30% in the first ten years. This is usually due to a leak in the system, so there is insufficient fluid for the device to work. The fluid is normal saline that would be used in a hospital drip, so it will be easily absorbed by the body. If broken, we replace the whole device, but not the nylon sockets, so the revision surgery is not usually that painful.

Skin is also a little unreliable in that it can stretch or contract from mechanical stimulation. We have patients who complain that the end of the phallus has stretched and is now floppy. Alternatively, the phallus can contract down onto the prosthesis and the tips become too pointed in the skin. Both examples will need revision surgery to change the length of the cylinders. If the phallus is wide and the regular partner wants extra girth, we will put in two cylinders. Normally, we would only put in a single cylinder. An advantage of the inflatable system is that is deflated most of the time and so less likely to erode through the skin.

Some patients request a semi-rigid or malleable rod (Coloplast™ Genesis or AMST™ Spectra), instead of the pump system. These have fewer moving parts and so are less prone to mechanical failure over time. They consist of a silicone rod with a bendy metallic core. However, they are erect all the time, and we are always worried about the constant pressure on the skin and potential risk of skin erosion. They are not as stiff in terms of girth, but axial rigidity for penetration is no different from an inflatable system. The metal core inside the malleable device can develop a memory effect, in that it will always curve in a certain direction after many years. If this happens, it will need a replacement.

Summary of Stage 3 Surgery

The figures to remember are a 10% infection rate in the first few weeks and 30% mechanical failure rate in the first ten years, whether the device is used or not. This is, therefore, the most risky part of all phalloplasty surgery. If a patient does not have a partner and is not planning to go on dates or to use the erectile device, then our advice is not to put the penile prosthesis in. We would wait until they felt the need for penetrative sex and then insert the device. Inflatable penile prostheses look and function more naturally but are much more expensive than malleable devices, so cost may be an issue for paying patients. However, the prosthesis companies generally give a discretionary lifetime warranty for mechanical failure of the inflatable erectile device, which is very helpful.

Outcome for Phalloplasty

The final outcome for phalloplasty surgery can be measured in a number of domains: cosmetic appearance, phallus sensation, sexual sensation, ability to pass urine standing, and ability for penetrative sexual intercourse. There is very little published data. Generally, all patients with reconstructed urethras can void standing. About 50% of transgender men with erectile devices are actually having penetrative sex (Garaffa, Christopher, & Ralph, 2010). This is probably not dissimilar to cisgender men of the same age. The key point is that, while all patients are trained in the proper use of the erectile device, some have not found a suitable partner yet. Cosmetic satisfaction rates are high, at about 90% (Garaffa, Christopher, & Ralph, 2010) and phallus size is fairly well maintained over time (Garcia et al., 2014) (Figure 5.). Sexual satisfaction, when surveyed, revealed that orgasmic sensation, either from the phallus or buried clitoris, was successful only if orgasms were being obtained before surgery (Garcia et al., 2014).



Figure 5. Phallus and gland.

SURGICAL STAGING FOR METOIDIOPLASTY

Patients choosing this operation usually do so because they do not want the major surgery involved in phalloplasty. Also, they may already have a satisfactory sex life as they are and merely want male genitalia for show and to ensure nothing looks female. Many have significant clitoral enlargement from the testosterone therapy and can achieve a decent cosmetic result. It is very unlikely that they will be able to have penetrative sexual intercourse without an external, strap on device. The main decision is whether they wish to pass urine through the mini-phallus or not. If passing urine standing is requested, then we usually offer three operations to complete the process. If they are happy to sit to void, then, usually, only two operations are needed. The main principle behind the success of metoidioplasty is that,

once the mini-phallus is formed, all the fatty tissue and loose skin around the base needs to be moved elsewhere or removed. This makes the mini-phallus stand out much better (Figure 6.).

Typical Sequence for Metoidioplasty with Urethra

Stage 1 – First stage buccal mucosa graft (BMG) urethroplasty

Stage 2 – Formation of mini-phallus, scrotum, urethra

Stage 3 – Testis prostheses



Figure 6. Metoidioplasty.

Stage 1. First Stage Buccal Mucosa Graft (BMG) Urethroplasty

The pink tissue (urethral plate) under the clitoral head is divided. This releases the body and head of the clitoris upwards and, usually, we can gain 2-4 cm in length. Also, this means that, once the surgery is all finished, the mini-phallus will be able to point upwards rather than always being tethered downwards. The clitoral head is also widened, so it can accommodate a decent size urethral opening at the tip in the future. All this raw surface is covered with FTSG from the inside of the cheek, also known as buccal graft (Djordjevic & Bizic, 2013), which has a better outcome than using inner labial skin flap or normal external skin graft. This is tissue that we regularly use to patch problems in the urethra in natal males and is ideally suited for this. Also the donor site is hidden. The mouth will be sore for about three weeks, whilst the skin heals over, and we advise patients to avoid spicy or very hot foods. Whistling

may not be possible afterwards, and the cheek may remain swollen until it heals. Patients are generally discharged the next day, with a dressing which is sutured around a catheter so it cannot be removed easily. They are seen in our clinic after a week to remove the dressing and, if the graft looks satisfactory, the catheter is removed. All grafts contract, so they are oversized a little to allow for this.

It takes about 6 months for the buccal graft to stabilise, which is when Stage 2 is performed.

Stage 2. Formation of Mini-Phallus, Scrotum, Urethra

The skin graft is formed into a urethra tube, and the rest of the operation is very similar to the join-up urethroplasty in Stage 2 phalloplasty. The mini-phallus is then formed around the urethra, ensuring the urethral opening is right at the tip of the glans clitoris. Sometimes we incorporate a little fat inside the metoidioplasty for bulk, but too much will make it look very short and stumpy. Most patients request an uncircumcised look, so we preserve the clitoral hood to form a foreskin. The scrotum is formed in completely the reverse fashion as described in the scrotoplasty section of the phalloplasty Stage 2. In metoidioplasty, we mobilise all the outer labial hairy skin from the base of the mini-phallus upwards (upside down V). This skin is then rotated downward and inwards, under the base of the mini-phallus, to form the scrotum. Just as in phalloplasty, the best results are obtained when an ablation vaginectomy is performed at the same time, as this allows the scrotum to not be split into two parts. We also offer laparoscopic hysterectomy and ovary removal at the same operation. Unlike other centres, we do not divide the ligament holding the clitoris to the pubic bone, as this makes the base of the clitoris drop downwards, which is counter-productive. The base of the mini-phallus is already lower than the base of a phalloplasty and making it lower still would not look as good in our opinion. We are usually able to excise a large portion of the mons pubis fat, if required, via the scrotal V-incisions. Patients are able to be discharged in two to three days and post-operative care, catheter management and complications are exactly the same as for Stage 2 phalloplasty.

After another 3 months, we insert two small (12ml) testis prostheses and perform any scar tidying up (Figure 6.). If necessary, a formal mons resection, via a short lower abdominal transverse incision, can be performed at the same time. Some patients are happy with the appearance of the scrotum and do not require testes prostheses.

Typical Sequence for Metoidioplasty without Urethra

- Stage 1 – Formation of mini-phallus, scrotum and hidden urethra
- Stage 2 – Testis prostheses

For those patients who just want a nice mini-phallus and scrotum and are happy to void sitting, the surgery is much easier. Stage 1 involves dividing the ‘urethral plate’ exactly as in Stage 1 metoidioplasty with urethra, but no widening of the glans clitoris. At the same time, we incorporate all the mini-phallus and scrotal elements of Stage 2 metoidioplasty with

urethra. The hidden urethra is formed in the same way as for Stage 2 phalloplasty. The catheter is left in for 3 weeks, as usual, and removed locally once all is healed. Laparoscopic hysterectomy, ovary removal and vaginectomy are performed at the same time, if needed. About 3 months later, Stage 2 is performed, which is exactly the same as Stage 3 for metoidioplasty with urethra.

How Does the UK Metoidioplasty Compare to Other Centres?

In other major centres, they often perform the metoidioplasty operation in a single stage, as described by Djordjevic et al. (2009). The mini-phallus, urethra and scrotum with testis prostheses are all formed in one procedure. In order to do this, there are some differences when compared to our technique. The urethra is formed from a BMG strip covered by an inner labial skin flap, but the opening only reaches the base of the glans clitoris, as the glans is not widened. This still allows passing urine while standing. The scrotum is formed by pulling the outer labial hairy skin downwards and towards the middle, under the base of the mini-phallus, so there is no vertical scar on either side of the mini-phallus. Both testis prostheses are then inserted through separate bilateral transverse incisions from above the scrotum, at the end of the operation. One disadvantage of this is that the scrotum sometimes pushes up on the mini-phallus. The phallus is made by lifting the shaft skin off completely and then re-wrapping it around the clitoris. This results in a circumcised look. Djordjevic et al. (2009) reported 100% outcomes in terms of voiding standing and sexual satisfaction. About 10% of patients were re-operated on for urethral complications. Takamatsu & Harashina (2009) reported standing to void rates of about 65% in Japan, using a different technique. Hage & van Turnout, who originally described this operation in 1996, reported their outcomes in 2003 and noted it took an average of 2.6 operations to achieve a satisfactory metoidioplasty.

OUTCOME FOR METOIDIOPLASTY

We performed an in-house telephone survey (unpublished), looking at outcomes for metoidioplasty at our unit prior to 2012. Sexual function was excellent, with nearly 100% of patients being satisfied. For cosmetic appearance, the figure was about 70%. In terms of voiding standing, only 47% were satisfied. The main reason was the small size of the mini-phallus. However, global satisfaction was still 71%. We also noted that about 25% of patients eventually requested a normal sized phalloplasty for penetrative sex, due to changes in their circumstances.

LEARNING POINTS

- Free flap or pedicled flap phalloplasty is the modern method of choice.
- Forearm flap phalloplasty is the commonest phalloplasty worldwide and has the best potential sensation.

- Pubic or thigh flap phalloplasty is useful for those desiring a less visible donor site.
- A free flap urethra has a much better outcome than a skin graft urethra.
- Penetrative sex is made possible with an erectile device, but this will need to be replaced a few times in a patient's lifetime.
- Metoidioplasty is the procedure of choice for those patients requiring minimal scarring and NOT requiring the ability for sexual penetration.
- Phalloplasty/Metoidioplasty surgery often requires multiple operations to achieve the desired result.

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Chapter 22

FACIAL FEMINIZATION SURGERY

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OVERVIEW

This chapter provides an overview of facial feminization surgery both for the general practitioner who may care for transgender females and for the lay person. The various techniques and procedures available are described along with complications and after care. Some useful reading resources are provided at the end of the chapter.

INTRODUCTION

Facial Feminization Surgery (FFS) comprises a group of procedures the aim of which are to alter the features of a male face to that of a female face (Altman, 2012). The practice of facial feminization surgery is regularly performed by only six surgeons in the United States and a handful of other surgeons worldwide (Plemons, 2014). FFS was popularised by Dr Douglas Ousterhout in San Francisco, California, USA in the 1980s and 1990s (Ousterhout, 2009). He examined several hundred dried skulls in the Atkinson skull collection at the University of San Francisco and identified female and male characteristics. He based treatment protocols on these differing features, which enabled surgical procedures to be devised that could change the male face to that of a female or indeed feminize a transgender female face with male characteristics, especially in the forehead area. Analysis of the female face demonstrates specific differences to that of the male face. Overall it is more heart-shaped or triangular with the base of an inverted triangle being represented by a line drawn between the maximum prominence of each zygoma (cheekbone) and the apex of the triangle being represented by the chin point.

The female face has a softer, rounder, curved and more oval shaped form while male faces have square, angulated forms with strong jawlines, wide and prominent chins and an M-shaped hairline (Figure 1.).

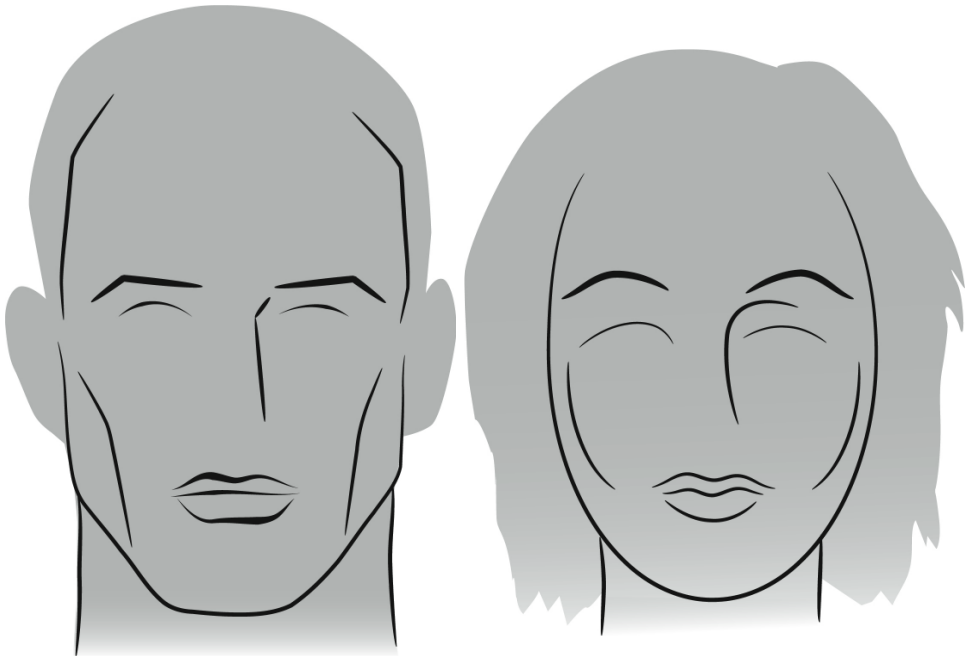


Figure 1. Line illustrations demonstrating the differences between male and female faces. Male faces are square and angulated with sharp lines and a strong jaw, while female faces are curved, round, oval and heart-shaped with smooth lines and overall are smaller. (From K. Altman. Facial feminization surgery: Current state of the art. Copyright © 2012 International Association of Oral and Maxillofacial Surgeons. All rights reserved. Reprinted with permission).

The male forehead often exhibits significant frontal bossing. This is often due to a large frontal sinus, but may also be due to thick, prominent supra-orbital ridges (forehead bone in the brow area). In addition, in profile view, the angle formed at the glabella (brow area) between the frontal area of the forehead and nose is often acute (depending on the prominence of the frontal sinus) as opposed to being much more obtuse in the female (Figure 2.). Eyebrows in females are arched, especially in the lateral, outer third area and are positioned well above the supra-orbital rim, while the eyebrow in the male is often straight and tends to sit at the level of the supra-orbital rim. The female nose may be small and short with a narrow bridge and narrow ala (nostril) base. Often there is upturning of the nasal tip with an obtuse naso-labial (nose/lip) angle. Male cheekbones are flat, while in females cheekbones are high and prominent. There is further accentuation by hollowing beneath the cheek area. The upper lip is full and short in the female with a well-developed Cupid's bow and curl. This is more so in young females. With age the upper lip loses its elasticity and becomes longer and more like a drape, losing its curl.

The angle of the lower jaw in the male has prominent lipping of bone due to the masseter (chewing muscle) attachments and it is wider than in the female. The masseter muscle itself is often bulkier. Male chins can be longer compared to the female by as much as 20%. They are also square and angulated, while female chins are shorter, narrower and more pointed (Figure 3.). The thyroid cartilage is much more prominent in the male and in the notch area forms an angle of 90° as opposed to in the female where the angle is 120° , when viewed from below or above, and so much less pronounced. A prominent thyroid cartilage is an extremely masculine characteristic. Transgender women often hide a prominent thyroid cartilage by

wearing a scarf or polo neck jumper, and so surgery to reduce its prominence is extremely popular in this group of individuals. It is of course important to bear in mind that differences between male and female faces vary significantly within different racial groups.

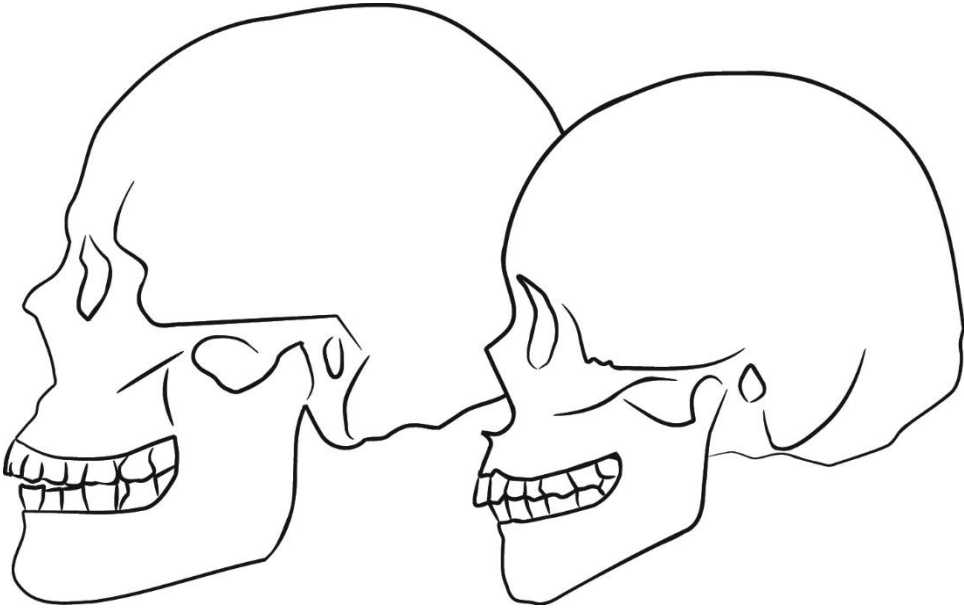


Figure 2. Differences between male and female foreheads. (From K. Altman. Facial feminization surgery: Current state of the art. Copyright © 2012 International Association of Oral and Maxillofacial Surgeons. All rights reserved. Reprinted with permission).

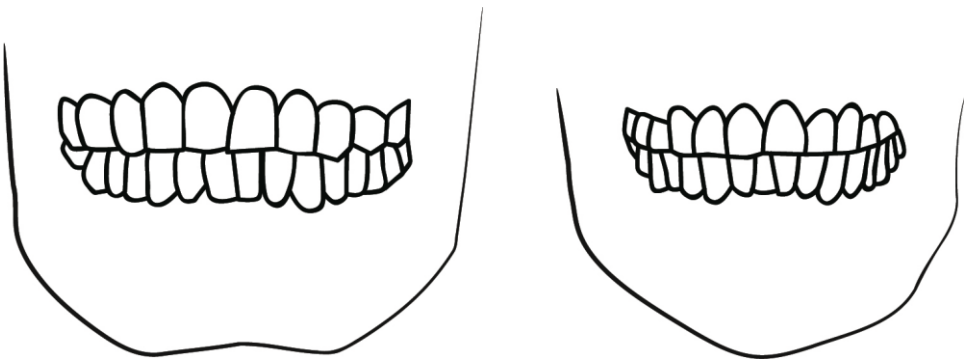


Figure 3. Differences between male and female chins. (From K. Altman. Facial feminization surgery: Current state of the art. Copyright © 2012 International Association of Oral and Maxillofacial Surgeons. All rights reserved. Reprinted with permission).

GENERAL CONSIDERATIONS

Patients are usually seen on average three times before surgery. They are seen at initial consultation for an hour following referral or self-referral. A full discussion takes place to

establish which FFS procedures they would benefit from. A full medical and social history is taken. It is essential to know about the support they will have, especially in the immediate post-operative period and how they intend to go home bearing in mind that many live a long distance away. Some patients stay in the local area until the first postoperative appointment. In addition, the benefits and risks of the surgical procedures are discussed and they are given a comprehensive information sheet to take away. All patients are shown examples of pre- and post-operative surgical cases so they can form an idea of what is available.

Many patients access virtual FFS websites that will 'photo-shop' their appearance by being provided with information on what procedures they are to have. This gives them a useful guide as to what their appearance will be like after the operation. Depending on which procedures are planned will determine the imaging that is requested, which may include a cone beam computerized tomography scan (CBCT) for the frontal sinus and orthopantomogram (OPG), which is a dental X-ray to look at the chin and jaw. These images are viewed at the following consultation and a surgical plan is then formulated. Photographs are also taken.

A date is fixed for surgery and two weeks prior to this, the patient has a nursing pre-assessment, blood tests are undertaken, including a blood group and save of serum, if blood is required after the operation (this is rare or non-existent in my practice). The patient is seen again for final consenting using the detailed information sheet previously provided as a consent form along with the hospital's generic consent form. Patients are advised that for long procedures a urinary catheter may be required which is inserted once under anaesthesia and remains in place for the first night, only. Hair is not shaved for scalp or forehead procedures. Patients can remain on their cross-sex hormone treatment and are given appropriate venous thromboembolic prophylaxis (to prevent blood clots), which includes TED compression stockings, compression boots and low molecular weight heparin medication. Mobilization is encouraged on the first post-operative day. Hair washing with shampoo is permitted once the scalp drains have been removed. The majority of patients are discharged on the second post-operative day, if they have had forehead surgery, when scalp drains are removed. All patients are seen for review at one week and approximately 4-6 months post-surgery. Photographs are updated at this time. Many patients utilise various hair-removal regimens including Intense Pulsed Light (IPL), electrolysis, creams and shaving. Most of these can be continued up to a few days before surgery and resumed a week to ten days after surgery depending on healing and discomfort. Hair can be coloured any time up to the operation and resumed a month after if required.

SURGICAL PROCEDURES

There are various surgical procedures that can be employed to feminize the face. Not all of these procedures will be required at the same time in any one patient as each set of procedures is tailored to the circumstances and requirements of the individual. The surgical procedures available to feminize the face include: forehead reduction, hairline advance, brow lift, rhinoplasty (nose reshaping), cheek implants, removal of buccal (cheek) fat pads, upper lip lift and dermis (inner layer of the skin) graft, angle shave and taper, chin reduction and thyroid shave. These procedures will now be discussed one by one in greater detail.

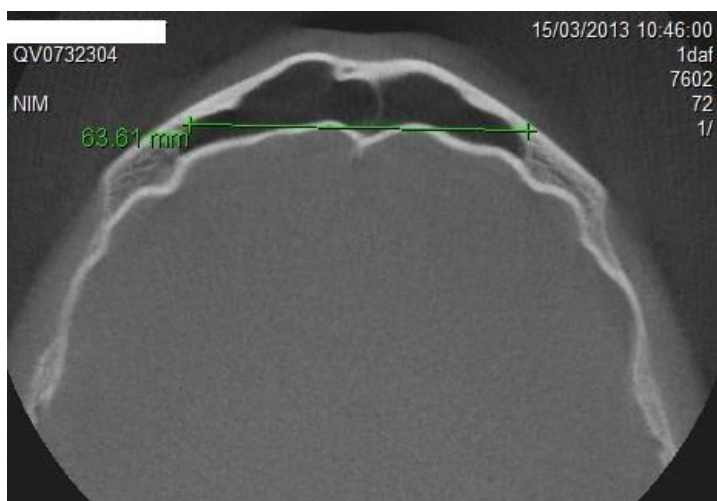
FOREHEAD REDUCTION AND HAIRLINE ADVANCE

Reshaping and contouring of the forehead is a commonly requested procedure to reduce bossing, which is considered a male characteristic. The bossing is caused by thick bone above the eyebrows in association with a large frontal sinus. These together give rise to a bulge often appreciated better in profile. In addition, the angle formed by the bossing and nose is usually acute in profile and so one of the aims of this procedure is not only to reduce the prominence of the bossing but also to produce an obtuse angle between the forehead and the nose. The results of this surgery can be very effective. Following Ousterhout's work, forehead shape and contour was classified into three groups: I, II and III, depending on aeration and size of the frontal sinus or its absence. The significance of this grouping is that in Group III cases, as the frontal sinus is well-developed, the anterior (front) wall must be osteotomized (cut), reshaped and fixed in its new set back position with titanium plates and screws. Planning before surgery requires patients to have a CBCT, which demonstrates the anatomy, but is also used to measure out the dimensions of the frontal sinus for surgery. It is noteworthy that the frontal sinus is often not symmetrical (Figures 4a and 4b).

The forehead is accessed via a scalp incision. This is behind the hairline (coronal flap) if a hairline advance is not required or when the patient wears a hairpiece. When a hairline advance is required a trichophytic incision is used. With a trichophytic incision the skin is bevelled to permit hair growth through the resulting scar and the incision is positioned behind the first 2-3 hair follicles.

The hairline advance incision follows the temporal receded areas, which often require excision and advancement at this point. It then runs into the hair-bearing area to above the ears to permit reflection forward of the entire scalp flap. In order to mobilize the scalp fully it is undermined to the occiput (back of the head) and multiple parallel incisions from side to side are made in the underlying tight layer known as the galea aponeurotica. For each incision in the galea the scalp will advance approximately 1-2 mm. In Group I and II cases reduction of the bossing, including the areas of the orbits (eye sockets) is all that is required to produce an acceptable appearance. Occasionally the use of bone cement may be required to produce a smooth contour but its use is rare. The orbital rims are contoured to expand the orbital perimeter.

Group III cases by definition all require osteotomy (surgical cutting of a bone) of the anterior plate of the frontal sinus. The dimensions of the sinus are marked out on the bone from the known CBCT measurements taking into account any lack of symmetry of the sinus. Once the plate is cut out and removed it is trimmed in such a way as to permit replacement of the inferior (lower) part in a retruded position in a 'tongue-and-groove' fashion. The surrounding areas are contoured. The sinus is inspected for any exposure of the dura (tough layer that covers the brain) which if exposed must be covered with fibrin (tissue) glue and also repaired if torn. The plate is secured with titanium plates and screws in the desired position. The bone plate heals by re-establishing its blood supply from the overlying scalp.



a



b

Figures 4a and b. Cone-beam CT scans of frontal sinus showing preoperative planning measurements. (Reprinted with permission from: Altman K. The Role of the Orthognathic Surgeon in Facial Feminization Surgery. In: F.B. Naini and D.S. Gill (Eds.) (2017). *Orthognathic Surgery: Principles, Planning and Practice*. Oxford: Wiley-Blackwell).

BROW LIFT

Brow lifting aims to raise the eyebrows to a more feminine position. The female brow is located well above the supra-orbital ridge and is arched whereas the male brow lies at the level of the ridge and is straight and more linear. Along with orbital rim contouring, this procedure opens up and ‘freshens’ the eyes. Upper lid blepharoplasty (removal of loose skin) may complement this procedure. Bone bridges each side are drilled into the skull and a permanent suture (stitch) is attached to the dermis (deep skin layer) of the brows at the boundary between the medial (inside) two-thirds and lateral (outer) third and the skull to elevate the brows. As much tension as possible is applied to the suture in the expectation that there will be some loss of the lift over a period of time. Vacuum drains are inserted for 48 hours under the scalp not only to drain any collection of blood that forms, but importantly to apply a vacuum to the scalp so that it heals very quickly due to its large surface area. In addition, a head bandage for external compression is applied for 24 hours.

Complications and Aftercare

Long-term complications of the forehead reduction are unusual. However, short-term complications include damage to the supra-orbital nerves resulting in numbness of the forehead skin. The scalp behind the scalp incision will also be numb in a patch up to the crown area for approximately 18 months. Extremely rarely, the frontal branch of the facial nerve can suffer a traction (stretch) palsy resulting in weakness of the forehead. Eyelid bruising and swelling are very common. The feared complication of total loss of the bone plate due to resorption or infection appears to pose a negligible risk. Furthermore, exposure of the dura (tough layer that covers the brain) does not appear to cause problems if it is dealt with appropriately. However, an unrecognized cerebro-spinal fluid (CSF) (fluid that surrounds the brain and spinal cord) leak from the nose, while likely to stop spontaneously after a few days may possibly require reoperation to deal with, but this has not been the author’s experience. The scalp is closed with sutures and metal staples or clips. Pain and discomfort after forehead reduction is manageable with simple painkillers. Aftercare involves frequent hair washing with normal shampoo and conditioner so that the wounds are kept hygienic and the hair does not snag on brushing. Avoidance of nose blowing to reduce the risk of air being introduced into the frontal sinus area is advised for 10 days after the procedure. Initial eye care may be required until the swelling reduces. The hairline advance scar may be visible and red to begin with and this will very much depend on hairstyle. The scar becomes pale over weeks and months following the procedure. Occasionally, there may be some minor breakdown in the wound and stretching of the scar if too much tension has been used to suture it together. Patients are advised of the risk of hair loss, which tends to be more noticeable in those with thin scalps and less dense or thick hair. More hair may be found on the hairbrush, which may be noticed at 6 weeks after the operation and last for 6 months when spontaneous recovery is to be expected. For those individuals who wear hairpieces or wigs, these can be worn as soon as they are comfortable to wear. Scalp sutures and clips are removed at 7-10 days.

RHINOPLASTY

Rhinoplasty in transgender women aims in most cases to reduce a dorsal (bridge) hump and to narrow the bridge. The dorsum can remain straight though some individuals may request more curvature with an upturned tip giving a retroussé nose. Large nostrils can be reduced by nasal sill or ala base excision. Smaller or ‘button’ noses are often requested, but this can be difficult to achieve and may not be appropriate when taking account of the overall size of the face.

Importantly, rhinoplasty complements forehead reduction by assisting to reduce the acute angle between the male forehead bossing and ‘take-off’ angle of the nose. Septoplasty may also be undertaken to improve the nasal airway. However, this procedure is outside the scope of this chapter. Rhinoplasty is done open in the sense that a columella (skin between the nostrils) flap is raised to assist full visualization of the nasal complex. The incision for the columella is often combined with the lip lift incision if being done at the same time. Incisions are also placed just within the nostril margins and are closed with dissolving sutures.

Complications and Aftercare

Butterfly strips and a nasal splint are placed for a week. External sutures are removed after one week. Initial complications include substantial peri-orbital (around the eyes) bruising and swelling. Pain is seldom untoward. The nose remains swollen for a few weeks or months and the nasal tip may be numb. There is a risk of dislike of the nasal aesthetics. Revision surgery may be required.

CHEEK IMPLANTS

Augmenting the cheeks with malar (malar: relating to the cheek) implants not only increases their prominence but can also be effective in helping to produce a feminine inverted triangle appearance of the lower two thirds of the face where the chin forms the apex of the triangle. High-density polyethylene implants are used and a few different malar shapes and sizes are available. They are inserted via the mouth and silicone sizers are used by placing in the desired position to gauge the correct size before the implant is selected and packaging opened. An adequately sized pocket has to be developed to ensure that the implant sits passively on the underlying cheek bone. The implants are porous and are immersed in a suitable antibiotic solution before insertion and are secured with two titanium screws each side to prevent migration and rotation. Achieving symmetry of the two implants can be challenging. The malar implants also permit some degree of plumping of the cheeks. Some surgeons advocate removal of fat pads in the cheeks to produce hollowing but in the author’s experience this procedure is of limited benefit in producing the desired result. Dissolving sutures are used in the mouth.

Complications

Cheek implants rarely become infected which may necessitate their removal and replacement at a further procedure. Characteristically, only one becomes infected but both may require removal to maintain symmetry before they are both replaced, but this is rare. Patients may experience numbness of the upper lip and surrounding skin, gums and teeth in the upper jaw. This normally resolves over time.

LIP LIFT AND DERMIS GRAFT

Lip lift is a common feminizing procedure, which is most often undertaken along with other procedures or can be done as an office procedure under local anaesthesia. Its aim is to vertically shorten the lip in the area between the alar (nostril) bases of the nose, which permits more show of the upper tooth crowns. In addition, the lip takes on a more curled profile with more show of the vermillion (red part of the lip), giving a more feminine and youthful look.

The procedure is accomplished by excising an elliptical or ‘bull-horn’ shaped area of skin immediately adjacent to the nasal sill, ensuring that the incision does not extend beyond the nostrils. The amount to be removed depends on the amount of shortening required but it is essential not to remove too much. The author’s ‘rule-of-thumb’ is not to remove more than 25% of the overall height of the lip measured from the nasal sill to the vermillion border. Dermis grafting plumps up the vermillion border of the upper lip. The dermis is harvested from the scalp flap skin, which is discarded from the hairline advance. It is tunnelled into the lip via three small incisions in the lip mucosa (mouth lining). Dissolving sutures are used.

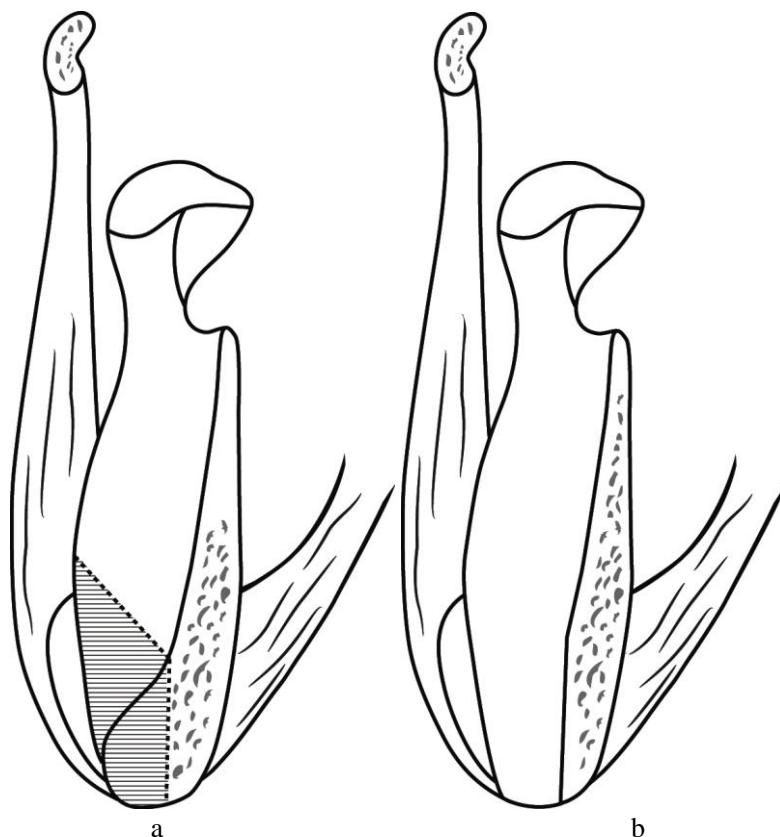
Complications and Aftercare

This procedure has few complications. Lip swelling following dermis graft may be significant for a few days. If the patient requires revision of this procedure, this can be easily done under local anaesthesia after a few months of settling. Paraffin gel may be used over the sutures to keep them clean and to prevent crusting. External sutures are removed at one week.

MANDIBLE (LOWER JAW) ANGLE SHAVE AND TAPER

The mandible may require contouring if it is angulated. This is an extremely masculine feature, where the angle is prominent and square with associated lipping along with bulkiness of the overlying masseter (chewing) muscle, which leads to additional width of the mandible. The procedure is done entirely through the mouth from an incision that starts in the wisdom tooth area and runs round towards the front of the mouth, often joining a chin reduction incision if done at the same time (Figures 5a and 5b). The entire angle and body of the mandible is widely exposed, which gives good visualisation but also protects against inadvertent muscle damage and bleeding from the drill. Good retraction is essential. The dense cortical bone is reduced in thickness over the angle and body area of the mandible.

Care must be taken not to expose adjacent tooth roots or the inferior dental nerve that provides sensation to the lower lip and chin.



Figures 5a and 5b. Angle shave by reducing the lipping at the mandibular angle and subsequent result (shading indicates area to be contoured). (From K. Altman. Facial feminization surgery: Current state of the art. Copyright © 2012 International Association of Oral and Maxillofacial Surgeons. All rights reserved. Reprinted with permission).

Where there is a significant mandibular angle present, the angle is cut away with a saw, again via the mouth. This is a difficult procedure due to the limited access and visual appreciation of the cuts to be made (Figure 6.). Due to the extensive exposure and masseter muscle stripping, atrophy (thinning) of this muscle is thought likely to occur, which is a favourable effect. Meticulous haemostasis (arrest of bleeding) is required and internal drains are placed for 24 hours. Dissolving sutures are used.

Complications and Aftercare

Patients may experience significant pain, swelling, bruising and stiffness in opening the mouth from this procedure, which may last for 2-3 weeks. The stiffness and swelling will still be resolving fully over the following 3-6 months. Inferior dental nerve sensory disturbance, though rare, will lead to altered sensation of the lower lip and chin. Also rarely, the marginal

branch of the facial nerve, which is the motor nerve of the lower lip, may suffer from a traction (stretch) palsy due to retraction. This will cause temporary weakness of the lower lip which normally recovers quickly. Wound healing inside the mouth can be protracted and can lead to food accumulation in the cheeks and scar banding. Simple tooth brushing and the use of chlorhexidine mouthwash for 2 weeks is advised. A normal semi-soft diet can be taken after the procedure.

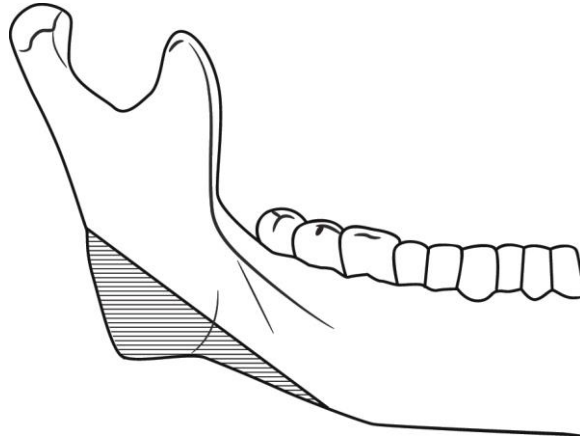


Figure 6. Angle shave and osteotomy cuts to the angle of the mandible (shading). (From K. Altman. Facial feminization surgery: Current state of the art. Copyright © 2012 International Association of Oral and Maxillofacial Surgeons. All rights reserved. Reprinted with permission).

GENIOPLASTY (CHIN REDUCTION)

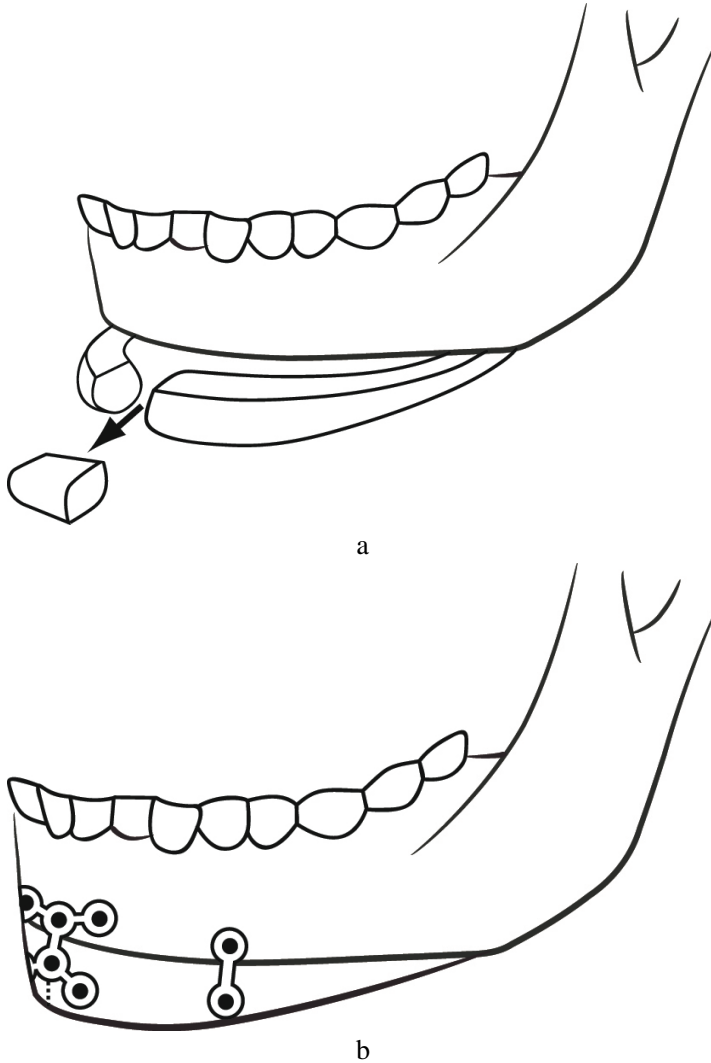
The masculine chin is often too wide and long and so the objectives of this procedure are to narrow and shorten it, where appropriate. Often some contouring of the chin is also required, but osteotomies (sectioning or cutting of bone) of the chin generally give superior results (Figures 7a and 7b). The procedure is done via the mouth to expose the whole chin area. The mental nerves, which provide sensation to the lips and chin, and are the continuation of the inferior dental nerves, are protected. The chin is reduced horizontally by removing a midline block of bone to bring the two halves of the chin together in the midline. Fixation is with titanium plates and screws. If required, the chin is reduced in height if it is too long by removing a segment of bone. If desired the chin width towards the back can be narrowed by fixing the tail ends of the chin fragments in a more inward position. It is important to not only suture the oral mucosa, but also the muscle layer (mentalis) to prevent ptosis (drooping) of the soft tissue chin pad. Dissolving sutures are used.

Complications and Aftercare

Pain, swelling and bruising of the chin, neck and under the tongue are not uncommon and settle after a few days. Sensory disturbance of the lip and chin are common. It is rare for this

to be permanent. Rarely, there may be temporary weakness of movement of the lower lip, which recovers in a few days or weeks.

As with the mandibular procedures, mouth care is essential along with the use of chlorhexidine mouthwash for a couple of weeks. A soft diet is advised for a few days.

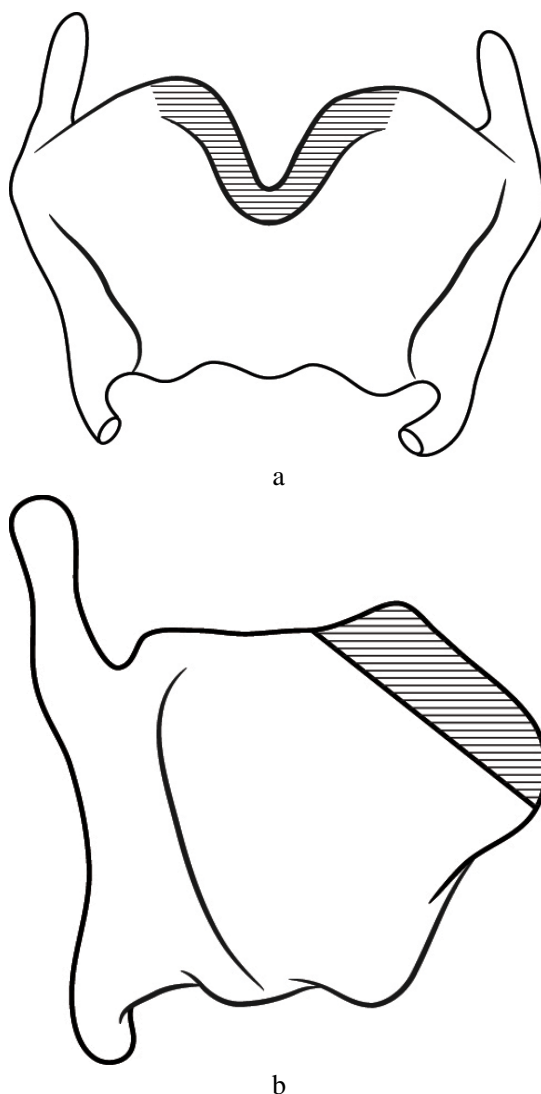


Figures 7a and 7b. Chin width reduction and fixation. (From K. Altman. Facial feminization surgery: Current state of the art. Copyright © 2012 International Association of Oral and Maxillofacial Surgeons. All rights reserved. Reprinted with permission).

THYROID SHAVE (CHONDROLARYNGOPLASTY)

The male thyroid cartilage tends to be larger than that of the female. The laryngeal prominence is much more apparent. The two laminae (plates) of the cartilage diverge at an angle of approximately 90° in the male and 120° in the female. In order to feminize the

thyroid cartilage, the laryngeal prominence must be reduced in size to a more obtuse and softer angulation (Figures 8a and 8b). It is noteworthy that in older individuals the thyroid cartilage is almost completely ossified (bony). The cartilage is accessed via a 2 cm incision in a suitable neck crease based as high up as possible in the neck. If the incision is placed over the cartilage for access, once healing has taken place, the scar can attach to the cartilage and puckering will be obvious when swallowing takes place. The cartilage is either 'shaved' using a blade or by using bone nibblers to achieve a satisfactory reduction. Where the cartilage is ossified, the prominence will require reduction with a slow running drill. Dissolving internal sutures are used along with a subcuticular (under the skin) running suture for the skin. Steri-strips™ (3M, Minnesota, USA) are placed over the wound and a water-proof dressing applied. Drains are not required.



Figures 8a and 8b. Thyroid cartilage, demonstrating the areas of resection in thyroid shave (shading). (From K. Altman. Facial feminization surgery: Current state of the art. Copyright © 2012 International Association of Oral and Maxillofacial Surgeons. All rights reserved. Reprinted with permission).

Complications and Aftercare

Some bruising and induration (hardening) of the area is normal for a few days or weeks. Pain is unusual, but a sore throat may be experienced. In the author's experience, it is highly unusual for the voice to be affected, but all patients are warned that if the structure of the cartilage is weakened, this may result in bowing of the vocal cords and an unfavourable deeper pitch change of the voice. As a consequence, voice coaching or surgery may be required. This rare complication is more likely in the younger individual where the thyroid cartilage is formed of cartilage rather than of bone. In teenagers and those in their early 20s, the cartilage is of the consistency of a bar of soap. In older age groups, because the cartilage is ossified, it maintains its integrity much better and therefore this complication, if it occurs at all, is to be much less expected. The skin scar is initially red and this becomes pale over a period of weeks and months. The dressings, Steri-stripsTM and suture are removed at one week. Glue may be applied at this point if there is any concern about the strength of the wound.

DISCUSSION

Facial feminization surgery has derived its origins from a broad range of cranio-maxillofacial (skull, jaw and face) surgical techniques and procedures specifically applied to that of converting a male to a female face. No attempt is made to beautify or rejuvenate the face. Most individuals simply wish to pass as a female and to integrate as well as possible into the community in which they live and work (Figures 9, 10 & 11 show three patients who all had forehead reduction including other procedures as part of their facial feminization surgery). Patients come from various walks of life and many are professionals. Some self-refer, others are referred, while others come on recommendation. The initial consultation establishes what the patient is looking for in terms of surgery and the author offers his thoughts and views as to what he believes they would benefit from. A detailed information sheet on the different procedures is provided and if the patient wants to be seen further, a CBCT and/or OPG if required, is arranged at the same time as the next consultation. It is suggested that patients bring a friend or relative to the consultations as a lot of information is provided. It is important to know what support they have and their living circumstances and occupation as all these factors have a bearing on their immediate post-operative care and progress. Most patients are on prescribed cross-sex hormone treatment and other associated medication. Some inadvisably obtain their medication over the Internet, which is therefore not being taken under medical supervision. Patients do not need to stop their hormones when they are undergoing their FFS. At the second consultation a firm surgical plan is arrived at and date given for surgery. The patient is seen for a third time approximately two weeks prior to surgery for a nursing pre-assessment, blood tests, MRSA (bacterial) swabs and detailed consenting for the procedure. Photographs are taken at this appointment. Many patients live a long distance away and need to be prepared to travel for the consultations. After surgery, those who live a long distance away often stay in a local hotel once discharged from the hospital until the review appointment after one week and then travel home. Patients having multiple surgeries are advised to take time off work for 3 weeks or so. At the first post-

operative appointment one week after surgery sutures, scalp clips and nasal splints are removed. The patient is then seen finally at 4-6 months and final photographs are taken.

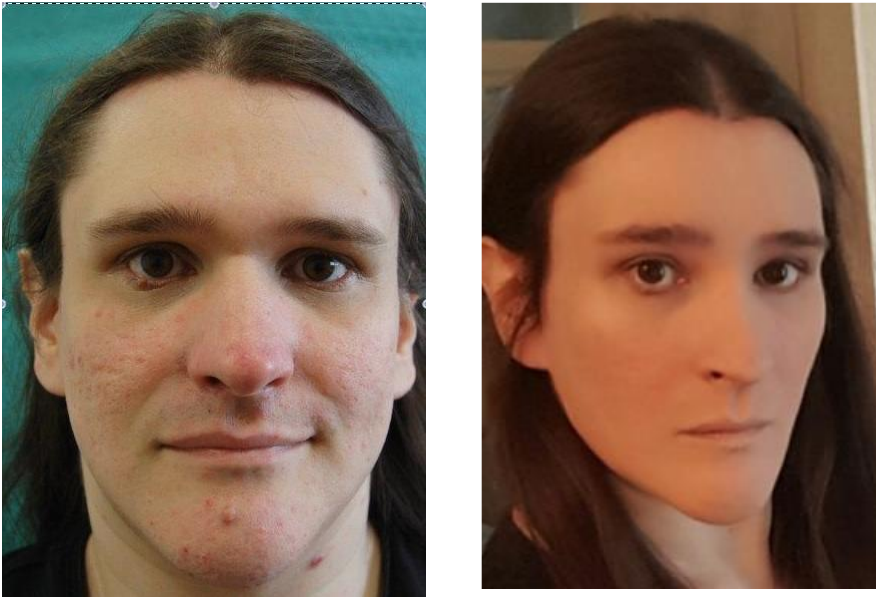


Figure 9. Photographs before and after forehead reduction, brow lift, hairline advance, rhinoplasty, chin reduction.

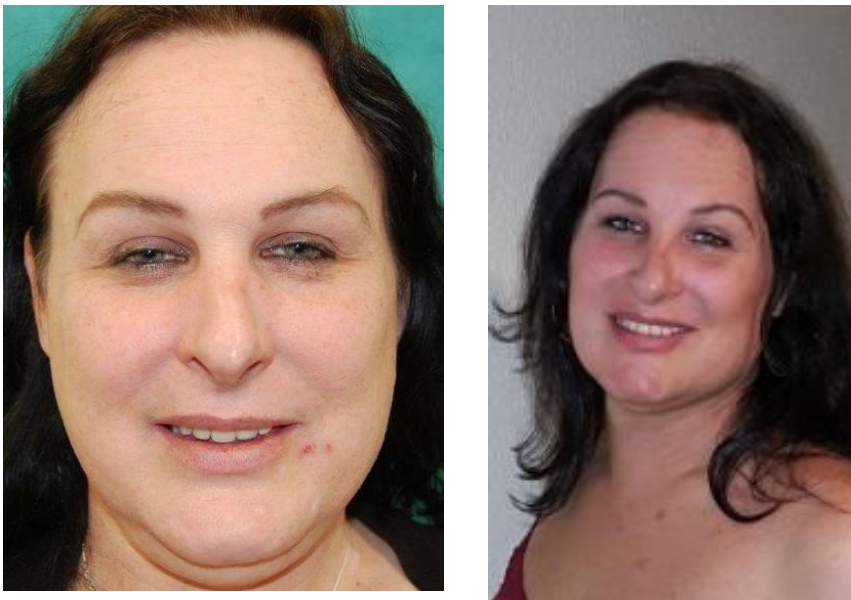


Figure 10. Photographs before and after forehead reduction, hairline advance, rhinoplasty and chin reduction.

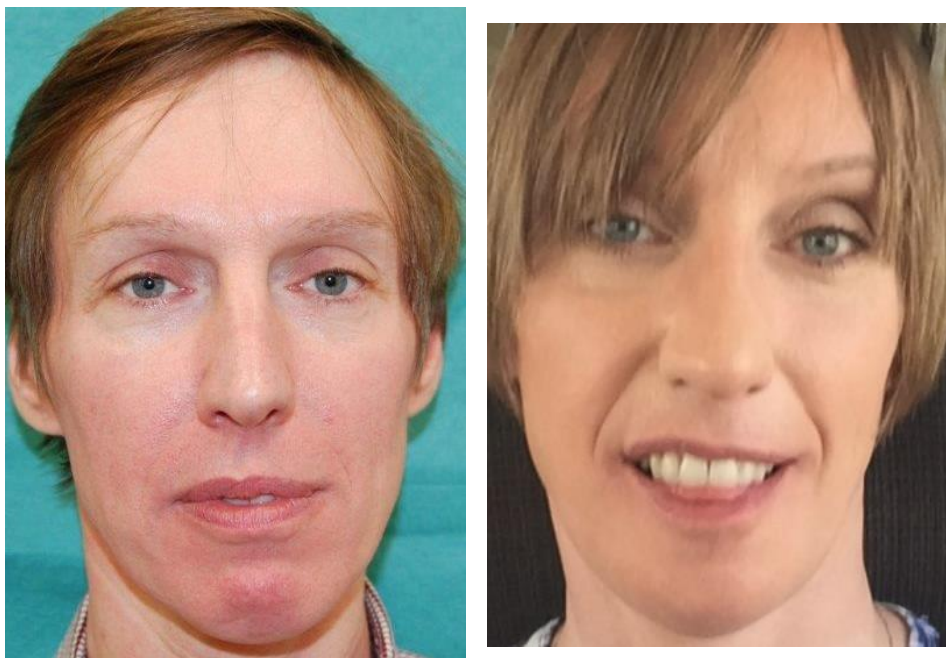


Figure 11. Photographs before and after forehead reduction, brow lift, hairline advance, rhinoplasty, chin reduction and thyroid shave.

On occasion, revision procedures may be required, but normally these are not done until a few months have passed. Most transgender patients have lived in role for a good period of time. Some only live fully in role and apply make-up once the facial surgery has been undertaken as they are more confident to do so. It is entirely sensible that patients opt for FFS before other gender-confirming surgical procedures, because the face is their ‘shop window’ and they mention that it is essential for them to “pass” as females and integrate fully into society. In terms of clinical effectiveness, there have only been a few long-term studies looking at Patient Reported Outcome Measures (PROMs) for FFS and the quality of life, though it appears that these techniques are highly efficacious and beneficial to patients (Morrison et al., 2016). Some patients may have a significant psychiatric history, which must be considered before surgery is undertaken and in some cases surgery may not be suitable or advisable at all as the benefits may not be fully realized or even appreciated. Although facial feminization surgery does not require referral by mental health professionals, in some cases such professionals can play an important role in assisting patients in making a fully informed decision about the timing and implications of such procedures in the context of their social transition (Coleman et al., 2012). Although most of these procedures are generally considered as being ‘aesthetic’, FFS is undertaken for medical necessity.

Rather than producing a change in degree – from less beautiful to more beautiful or from old to young – FFS effects a change in kind by reflecting the fundamental form of males and females whose distinctiveness as natural kinds is measurable and observable through the ostensibly objective and value-neutral methods of biology and anatomy (Plemons, 2014).

LEARNING POINTS

- Facial feminization surgery (FFS) is a group of procedures that aim to feminize the face.
- Procedures available include forehead reduction, hairline advance, brow lift, rhinoplasty (nose reshaping), cheek implants (and removal of buccal fat pad of Bichat), lip lift and dermis graft, chin reduction, mandibular (lower jaw) angle shave and taper and thyroid shave.
- FFS is major surgery necessitating up to two days in hospital and up to approximately three weeks off work.
- Patient satisfaction is generally high and the techniques are highly efficacious and beneficial.
- Robust clinical effectiveness and quality of life studies are required with the use of Patient Reported Outcome Measures (PROMs).

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Chapter 23

VOICE, SPEECH AND LANGUAGE THERAPY

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OVERVIEW

Voice specialist speech and language therapists (SLTs) work increasingly with transgender individuals who seek voice and speech modifications to help them present in their experienced gender. This chapter will outline the basic SLT treatment guidelines, the referral process and the process of voice change. The effects of hormone treatment on the voice, for both transgender women and transgender men, will be outlined. The initial assessment and the early, intermediate and later stages of treatment will be discussed, including the possible benefits of group voice therapy. Treatment for the singing voice, as well as surgeries to the larynx for both transgender men and women, will also feature in this chapter. SLT intervention can play a vital role in assisting social gender role transition for transgender people.

INTRODUCTION

Speech & Language Therapists (SLTs) work with a variety of conditions or disorders that affect an individual's communication and swallowing. Most SLTs tend to specialise in either adult or paediatric work. SLTs can work for state funded systems, such as education or the National Health Service (NHS) in the United Kingdom (UK), or they can work in private practice. Some SLTs specialise in the field of Voice and it is voice specialist SLTs who may work with transgender people. SLTs may form part of a Multi-Disciplinary Team (MDT) at a transgender health clinic, or be based in hospitals or community clinics. Transgender, or gender nonconforming people, who seek voice modification do not have voice disorders. The primary role of the SLT is usually

...“to help individuals find and develop voice and communication that reflects the individual’s sense of gender, so that the outside expression reflects the person inside.” (Davies, Papp and Antoni, 2015)

In the UK, speech and language therapy for transgender individuals is currently listed as a ‘core procedure’ within the NHS Interim Gender Dysphoria Protocol and Service Guideline 2013/4 for the treatment of transgender individuals (DoH, 2013). This has ensured that more SLTs are now offering a service to the transgender population and that more are seeking specialist training. Communication change aspects that may be targeted include: resonance, pitch, intonation, voice quality, volume, articulation and speaking rate. Nonverbal communication, such as the use of gesture, and social skills confidence building may also feature in treatment sessions.

SLT TRAINING AND REGULATION

Standard SLT training covers a wide range of subjects including: head and neck anatomy, audiology, phonology, linguistics, neurology, paediatric speech language disorders and acquired adult speech and language disorders, counselling skills, psychology, voice, stammering and statistics. In the UK, the professional body for SLTs is The Royal College of Speech and Language Therapists (RCSLT) and all practising SLTs need to be registered with the Health Care Professions Council (HCPC). SLTs often work closely with other health professionals such as doctors, surgeons, nurses, physiotherapists and occupational therapists. Liaison with relatives and families may also be a part of an SLT’s role.

VOICE SPECIALIST SLTs

The training of Voice specialist SLTs and their links with other medical or allied health professionals means that they differ considerably from voice teachers or vocal coaches. SLTs often work closely with Ear Nose and Throat (ENT) surgeons. Those who work with transgender voice may see people as part of a general voice caseload which will mainly be comprised of voice disordered patients, such as those with vocal cord nodules or vocal cord paralysis. A few SLTs will be based in, or closely allied to, transgender healthcare clinics (as part of the state funded health service, if available) and some will be based within the private sector or a combination of both. The level of experience will vary amongst clinicians; some may have seen only a few transgender people over many years, whilst others may have seen a higher concentration of people. Generally, those SLTs who are based, or have been based, at transgender healthcare clinics will have the greatest level of experience, particularly if this experience spans many years.

PRACTICE GUIDELINES

Currently the RCSLT from the UK offers no formal guidelines of practice for SLTs working with transgender voice. However, a speech and language therapy section is included in the Royal College of Psychiatry (RCP) Good Practice Guidelines for the Assessment and Treatment of Adults with Gender Dysphoria (2013). The World Professional Association for Transgender Health (WPATH) Standards of Care (SOC) also includes SLT guidelines (2011). However, fuller guidelines and a wider literature review are provided in the SLT SOC companion document: “Voice & Communication Change for Gender Non-conforming individuals: Giving Voice to the person inside” (Davies, Papp & Antoni, 2015). Although studies in this field have traditionally been limited, and mainly focused on the transgender female voice, research is now growing for the population of both transgender women and men.

THE REFERRAL PROCESS

In many state funded health services (if available), like the NHS in the UK, people may need to be referred to speech and language therapy via their primary care physician or General Practitioner (GP). Within a transgender health clinic, the transgender health specialist, in many cases a psychiatrist, psychologist or endocrinologist, will be the person making the referral to an SLT. In the private sector, people can also be referred by their doctor or they can self-refer to a suitably experienced SLT. If a transgender person is interested in voice modification, it is advisable to refer to an SLT in the earlier stages of treatment.

TIMING OF SLT TREATMENT

There is no absolute optimal timing when treatment should begin. However, within state funded services, where sessions are likely to be more limited, it is more heavily recommended that people are referred to services when they are close to, or have already embarked on, their social gender transition. It is also generally recommended that the transgender person has began the social role transition in order to experience life as their experienced gender, as this will greatly assist voice development, especially in the intermediate and more advanced stages of SLT. It is not necessary for the transgender person to attend the sessions dressed as their experienced gender.

IS VOICE AND COMMUNICATION CHANGE IMPORTANT?

Voice and communication change is only important if it matters to the person. Speech and language therapy intervention is not about SLTs imposing their views about speech and language and perceived gender norms onto the client. “It is important for speech and language therapists to remain sensitive to their clients’ (possibly changing, evolving) wishes rather than

follow their own assumptions about voice-and-communication goals.” (Davies, Papp & Antoni, 2015). If an individual has no interest in voice change, then referral to SLT is not appropriate. Some transgender people chose to not work on their voice and communication and have no overt concerns regarding this. Others, however, can be very focused on their voice and may consider complete voice modification as vital to successful social transition. Some may be so concerned about their voice that they refrain from social interactions and can remain socially limited because of this. There is a middle ground that many individuals reach and where they are contented to stay. This is where the voice reaches a gender neutral type presentation, or is partly or adequately changed such that it works well in the course of their general life or their stage of transition. Individuals who are open about their transition, in some ways feel less pressure to achieve a perfect or fully modified voice according to their gender presentation. In contrast, transgender people who wish to live in stealth tend to have greater motivation and sometimes much higher levels of anxiety with regards to voice and communication change.

WHAT EFFECTS DO HORMONES HAVE ON THE VOICE?

For transgender men, testosterone treatment does thicken the vocal folds, which makes the voice sound lower (thicker vocal cords produce lower pitched sounds). Although transgender men may not be routinely referred to SLT, particularly in the UK, they can request or seek this if they are not satisfied with their voice or have specific vocal, speech or language issues to address. They may also benefit from counselling regarding some of the possible vocal restrictions they may experience. Although not the norm, it may also be the case that a transgender man does not wish to take testosterone treatment and is, therefore, more likely to seek SLT assistance. For transgender women, oestrogen hormone treatment has no effect on the cartilaginous framework of the larynx or the vocal cords (Money & Walker, 1977). Thus, oestrogen hormone therapy has no effect on the pitch (fundamental frequency) of the voice. Except in rare cases, where the client has managed to self-modify their voice, those who wish to feminise their voices are, therefore, obliged to seek the services of a voice specialist. This means that far more transgender women than men are referred to, or seek, speech and language therapy and the number of therapy sessions transgender women have is generally far greater.

THE PROCESS OF VOICE CHANGE

All therapy is a process, and speech and language therapy is no exception. It is a therapeutic process that also aims to ensure that transgender people acquire the necessary skills and confidence to make voice and communication changes. These factors, together with the issues which challenge most individuals transitioning gender, such as emotional, family and work adjustments, mean that the area of voice work often presents as one of the most challenging aspects of social transition for transgender people. The task of changing from one voice to another can seem insurmountable to many individuals, particularly transgender women. However, SLT experience and research studies have shown ...”that therapy can be

effective in feminizing the voice in transgender women” (Davies, Papp & Antoni). Whilst it is true that voice therapy may not be a linear process, the stages of treatment and the skill of the SLT in guiding transgender people through the process can ensure the secure acquisition of skills in a supportive environment. For transgender women, other than the time spent in hair removal services, the next greatest time outlay may well be for speech and language therapy. SLT sessions are generally between 45 and 60 minutes and this author recommends at least 12 treatment sessions, particularly for voice change for transgender women. For some people, especially transgender men, a few sessions may be all that is required to adequately modify the voice. However, other transgender men may have a stronger focus on their voice change needs. A study of 16 transgender men found that 88% of participants felt that communication masculinisation was at least as important, or more important than, gender reassignment surgery (Van Borsel, Cuypere, Rubens, & Destaerke, 2000). Whilst telepractice sessions, using mediums such as Skype and Facetime, are increasing, especially in the private sector, the majority of SLT sessions still take place face to face. These SLT sessions can be a safe and useful environment in which to develop confidence with dressing and presentation aspects and to increase levels of social confidence. For this reason, and perhaps to assist with non-verbal communication aspects for those who seek this type of assistance also, this author recommends that the initial sessions, at least, are carried out face-to-face. The generally recommended treatment process I recommend is an Initial Assessment/Consultation followed by up to four short blocks of follow up treatment sessions, with approximately 3-4 sessions in each block. This ensures that the various stages of voice therapy can be worked through and allows for review at the end of each block. It may be the case that SLT is not indicated following the initial assessment, for example, if the timing of intervention is unsuitable. Some people will achieve their goals in fewer sessions than the usual required number, whereas others will require additional sessions. The therapy process seeks to break down tasks into manageable steps, which increase in length and complexity over time, so that the person gains adequate awareness and ability with the exercises. Sustained practise will give the best chance of the ‘new’ voice becoming naturalised into the actual voice of the individual. Unfortunately, there are generally no quick fixes when it comes to voice change. As an aspect of self that is closely linked with identity, the process may bring many challenges for some individuals. However, the rewards from voice modification can be manifold and very rewarding for both the transgender person and the SLT who practises in this field. Aligning voice with experienced gender can be deeply satisfying and liberating for many transgender people, who very often report increased social confidence as a result of undergoing speech and language therapy.

THE INITIAL ASSESSMENT

It is normal for many transgender people to feel nervous at their initial SLT assessment. Voice work can be exposing for anybody, and more so if the individual is a shy or socially anxious person. The SLT will aim to put the client at ease and encourage the person to be themselves during the meeting. Some people present for therapy at a time when emotional or personal issues are more strongly influencing their lives, particularly if they are in the early stages of transition; while others may be at a more optimal point for beginning voice

modification work. One purpose of the initial consultation is for the SLT to gain an understanding of where the person feels they are with regards to their social and vocal transition requirements and wishes. It may also include the following:

- Studying a case history
- The client filling out a self-evaluation questionnaire
- A perceptual assessment of the person's voice and communication by the SLT (hearing and visual observations made by the SLT)
- Voice recording
- Objective voice analysis, using specialist analysis equipment such as the Electrolaryngograph or computer software systems that analyse aspects of voice, such as pitch
- The SLT outlining the therapy process to the client
- A basic explanation of how voice works
- Explanation of how voice and speech differ in cisgender males and females
- Establishment of initial treatment goals
- Practising initial exercises with the SLT
- Explanation and advice about how to practise the exercises
- Discussion regarding the spacing between appointments and the client's ability to commit to speech and language therapy
- The setting up of future appointments

It is the author's preferred approach, if indicated, and if the client is willing and able, to practise one or two initial stage exercises with the client before the end of the initial assessment. This provides something tangible for the client, who, in the majority of cases, has experienced a significant waiting time to access treatment. It helps to give a sense that voice change is possible.

THE INITIAL STAGE OF TREATMENT

Indirect Therapy

Just as different SLTs may differ in their approach and choice of exercises, respective clients have their own ways of learning. Thus, an individual approach is usually taken with regards to each person. However, the basic elements of voice care and how voice is produced are usually dealt with in the first treatment session. There is no strong consensus on the importance of non-verbal communication training, such as body and face mannerisms and the use of gesture and posture. Although this type of intervention does fall under the remit of speech and language therapy, in many cases, it is not required. When this type of treatment may be offered / sought, it is recommended to give general advice such as 'cisgender women tend to use more gestures and smiling in communication' rather than making categorical statements. The research in this area remains weak, but adaptations have been found to be useful to some people, who may benefit from video recording feedback. The bulk of the SLT's work, however, will be in the area of teaching and practising direct voice exercises

with the client. The initial exercises will tend to be drill-like repetition of sounds, words and short phrases. These exercises will include both reading and speaking tasks, if possible. Demonstrations and modelling of the exercises by the SLT greatly assist the client's learning.

The principles of chest versus head resonance may be explained and practised with clients, as well as pitch exercises. Intonation patterns and speech style characteristics can also be introduced in the first few treatment sessions. Broadly speaking, the initial goals of voice work with transgender women are the exact opposite of the voice work with transgender men! Both client groups may be taught the different ladders of resonance within the body. However, for transgender women, an initial goal may be to gain an understanding of how to decrease chest resonance and increase the use of facial (head) resonance.

For transgender men, increasing the amount of chest resonance may be the prime goal of treatment, particularly in cases when hormonal treatment has not sufficiently masculinised the voice. Some transgender men can achieve appropriate pitch range, but need assistance to speak in those frequencies consistently. "These transgender men would then need to be retrained to realise the existence of and then adjust to frequency ranges that are conducive to presenting as the desired gender" (Davies, Papp & Antoni, 2015). Similarly, whilst the majority of transgender women will be encouraged to increase pitch and intonation variation in line with the voice and speech patterns of cisgender females, transgender men are more likely to be encouraged to use a lower and less extensive pitch range, particularly in cases where androgen treatment has not, in itself, reduced the intonation range. The aim in all voice therapy is to establish the principles of the exercises and to carry them out without causing strain to the larynx. In voice training with transgender females, raising the pitch safely is possible when the necessary guidance is given to reduce laryngeal muscle tension / constriction. Soderpalm, Larsson and Almquist (2004) found that transgender females were able to raise speaking fundamental frequency without strain or vocal damage. However, it is this author's experience that approximately a quarter of transgender females present with at least mild level voice hoarseness (dysphonia) at the start of their treatment and this should be addressed at the very beginning. These findings have been noted by other SLTs also (Hancock & Garabedian, 2013). A hoarse or strained voice may be the result of people's attempts to self-modify their voice prior to seeing an SLT. It could also be because the client has trialled some online recommendations by non-voice trained individuals. What may work for one person, may not necessarily work for another. Long term safe voice change depends on practising exercises which develop gradually, so that the client gains increased vocal stamina and ability. At the end of the first stage of treatment, it is recommended that a second voice recording is made by the SLT, repeating the same tasks as for the initial assessment recording, so that a direct comparison can be made. This is an ideal point in time to review the findings or progress made at this stage. It is often at this moment that clients are shocked to hear that they can detect an obvious voice shift. Whilst they may still feel unsure about the newer voice that is emerging, more often than not, they feel encouraged and pleased with the progress and motivated to continue treatment.

Intermediate Stage of Treatment

In the second phase of treatment (approximately over four treatment sessions), the length and complexity of the tasks increases. If dyslexia is an issue, fewer reading tasks may be

used, but the modelling of each line by the SLT is generally very useful for people who are challenged by reading aloud, and the client's confidence tends to increase over time. Short phrase length is extended to short sentences, then to longer sentences. More general vocabulary can be practised, such as greetings 'Hi', 'hello', 'how are you?' etcetera, in preparation for structured, short conversation tasks with the therapist, such as, 'Can you tell me three things you did today?'. It is also beneficial to use a wide variety of reading and spoken tasks with clients. Reading texts may include traditional SLT exercises, such as sentences and poems or texts, which increase in length. Depending on the client's level of ability at this stage, aspects such as telephone and voice projection tasks can be introduced. The conversation tasks can also increase in length, but still retain a structured element, e.g., 'Tell me five things you did last weekend?' It is usual for people to raise the issue of a mismatch between the reading or 'therapy room' voice and the spoken or 'outside of therapy' voice. This discrepancy is a normal part of the voice therapy process, since the reading and therapy tasks are more controlled and practised with the SLT, whereas free speech is spontaneous and, therefore, requires an additional level of skill and practice to reach the goal of sustaining a conversational voice. Intermediate stage recordings may reveal this discrepancy and are also useful for highlighting the gap, if the client's awareness regarding this is low. Again, steady perceptual improvements are often noted at the intermediate stage recordings, in comparison to initial recordings, which can act as a source of motivation to move on to the higher levels of treatment. Group voice therapy can be considered in the intermediate - advanced stages of treatment, although it may not be suitable for everyone. Listener feedback from others can be useful, as can the supportive environment of individuals working on exercises collectively. Group voice therapy recommendations will be outlined below, following the section on advanced stages of treatment.

Advanced Stages of Treatment

It is in the later stages of speech and language therapy that more time is devoted to extending the conversational tasks to insure carryover of the 'therapy voice' into everyday voice. Longer reading tasks, with more complex subject matter or vocabulary, can be practised to facilitate this. Using material that pertains to the client's interests and work life is recommended. More often than not, people will describe scenarios at work where their voice reverts to their old voice due to being caught up in work events. Role play can be useful for improving this, as well as practising specific vocabulary with the patient related to their work situations. The patient's voice being misidentified on the telephone can remain an issue, even in the latter stages of therapy. This can be reduced by the client stating their name at the start of the call to alert the listener to the client's gender. However, it is possible to achieve a voice that 'passes' fully by carrying out further practice. Using voice recording will assist an individual's awareness of how their voice sounds to others. There is often a mismatch between how individuals hear their own voice and how it sounds to others, which can only be fully realised by the, often difficult to bear, act of listening to self-recordings! Once again, varied material and more challenging tasks assist in improving the general ability of the voice to sustain its changes. In addition, 're-setting' the voice during conversation tasks, when it drifts significantly from the goals of treatment, also helps the individual's muscle memory. It is at this stage, in particular, where conscious learning is more likely to become unconscious.

For additional practice, and to provide an additional communication experience and /or maintain newly acquired ability, a structured voice practice group run by the SLT can be very helpful.

GROUP WORK

There can be many benefits to group voice practice sessions. These include:

- A supportive and safe place to practise voice exercises
- Gaining awareness of others' vocal abilities and challenges
- Gaining an increased understanding of one's own vocal abilities and needs
- An opportunity to increase social skills and confidence
- More varied therapy context extending beyond one to one sessions with the SLT
- Longer practice time
- A greater number of therapy tasks
- Opportunities for conversation practice with new people

For many individuals, group voice therapy, following individual therapy sessions, is the ideal way to gain increased confidence and to fully establish the modified voice. For others, although confidence and ability may be improved, there is still a struggle maintaining raised pitch. In these cases, vocal surgeries may be a viable option to further assist the client's voice.

LARYNX AND VOCAL SURGERIES

SLTs who work with the transgender population need to have an understanding of the vocal surgeries offered by Ear Nose and Throat (ENT) Surgeons. More surgical procedures are available for transgender women than for transgender men, and more vocal surgery intervention is sought by the transgender women population. Larynx and vocal surgeries are currently referred to as 'additional core procedures' in recent NHS protocols for the treatment of transgender individuals. This does not guarantee funding for these procedures in the UK. The patient's GP is required to make a funding application with the local funding authority, and the decision to fund the surgery lies with the local funding body. It is advisable, therefore, that a referral to an ENT specialist within the NHS is made via the patient's GP. Privately, an individual may self-refer to a suitably experienced ENT surgeon. The surgeon may seek confirmation of full social gender role transition and will explain the surgical procedure to the client. The possible benefits and limitations of any surgery will be discussed with the client, prior to any surgery being carried out. Transgender people are often keen to pursue larynx and vocal surgeries prior to full social role change or early on in their transition journey. However, it is strongly recommended that the following criteria should form the basis of any referral to ENT:

- The client has completed a full social gender role transition

- The individual has completed a course of speech and language therapy (a minimum of six-twelve one to one sessions is recommended prior to a referral for vocal surgery)
- The SLT has made pre-surgical recordings of the client's voice

LARYNX AND VOCAL SURGERIES FOR TRANSGENDER WOMEN

Thyroid Chondroplasty (Adam's Apple Reduction)

Reducing the thyroid cartilage is often cited, by many transgender females, as one of the aspects of treatment that significantly reduces psychological distress. Whilst some people do not have a prominent Adam's apple, and are therefore not troubled by this aspect of presentation, others may describe moderate to extreme levels of discomfort and see their Adam's apple as a revealing sign of masculinity. Thyroid chondroplasty (also sometimes referred to as 'laryngeal shave') is the surgery that aims to give the neck a feminine contour. Two approaches are widely adopted by surgeons regarding this surgery. The first, more often used by ENT surgeons, is to make a small incision in a suitable skin crease over the larynx. "This approach allows for the dimensions of the larynx to be measured accurately for maximal and safe removal of the laryngeal prominence. The soft tissues are closed in layers so that there is little risk of skin tethering to deeper structures" (Antoni & Sandhu, 2015).

Although many people express concern regarding an incision being made directly over the larynx, in the majority of cases, unless there is a history of keloid or poor scar healing, the incision gradually fades so that it tends to blend into the skin crease and, therefore, is not easily visible after a few months. Healing from this procedure tends to go very well and, because of minimal risk to the voice and airway, ENT doctors generally prefer to adopt this surgical approach.

The second approach is more commonly adopted by facial plastic surgeons. This involves a small incision being made high in the midline neck, which has the advantage of the scar being largely hidden under the chin. "Scissors are passed through a soft tissue tunnel and the laryngeal prominence is removed without direct visualisation" (Antoni & Sandhu, 2015). This technique carries a slightly higher risk of the skin 'puckering' on swallowing. More significantly, there is also a small risk of voice and airway damage due to vocal cord detachment. This is because the vocal cords attach directly behind the front of the thyroid cartilage.

Pitch Elevation Surgery: Crico-Thyroid Approximation Surgery

The most common approaches for raising the pitch of the voice are:

- Shortening the vocal cords
- Reducing the mass of the vocal cords
- Increasing the tension of the vocal cords (aiming to make the vocal cords thinner)

In the UK, the most common approach is to increase the tension of the vocal cords by carrying out a crico-thyroid approximation (CTA). To carry out a CTA procedure, an incision is made in a skin crease directly over the larynx. If an Adam's apple reduction is also desired, the two procedures can be carried out at the same time. The thyroid cartilage and the cricoid cartilage are approximated (brought together) to close the gap that is between them. This has the effect of tensioning the vocal cords, with the aim of elevating the vocal pitch. In transgender females aged 50 years and older, vocal fold laxity (less tension in the vocal cords), related to an ageing voice (Baker, 2005), may mean that a standard CTA may not be enough to achieve adequate pitch elevation. For these individuals, a variation of the standard CTA procedure is indicated. The enhanced CTA involves removing the lower edge of the thyroid cartilage to increase the cricothyroid gap prior to approximation (Antoni & Sandhu, 2015). Although formal studies remain limited regarding the outcomes of all voice feminisation surgeries, general findings for standard CTA surgeries (currently the most researched of the surgical techniques) show that the pitch does tend to be elevated in at least two thirds of people. One review of this procedure showed that 80% of patients were satisfied with the results, and voice measurements of fundamental frequency (Fo), showed that 71% of individuals had experienced pitch increases in free speech, and their reading and singing voice. However, a reduction of vocal range was noted following surgery, which was effectively addressed by post-surgery speech and language therapy (Kanagalingham et al., 2005). In the above study, and in an earlier study by Matai et al. (2003), the reported success is attributed to both the surgery and post-surgical speech and language therapy. It is difficult to judge the relative contribution of surgery versus therapy, as a full evaluation of the type and amount of speech therapy received was variable. Matai et al. (2003) suggest that probably both surgery and speech therapy work in conjunction and increase the likelihood of a good result. Transgender women seeking voice feminisation surgeries should be made aware that, whilst the surgeries may increase the pitch of their voice, other aspects of voicing and communication, such as increased use of intonation and speech delivery style, are more successfully modified through a course of speech and language therapy.

VOCAL SURGERY FOR TRANSGENDER MEN

Vocal surgery to reduce vocal pitch is possible for transgender men. However, it is not commonly required. The combination of treatment with androgen hormone therapy and, sometimes, speech therapy is usually sufficient to achieve adequate voice change. In rare cases where surgical assistance is sought, the easiest approach is to increase the mass of the vocal folds with a suitable injection of material such as fat harvested from the individual's own body (Coleman, 1997). Whilst fat injections can last for a reasonable length of time, there is generally a need for 'top-up' injections. If vocal injections prove to be inadequate, a procedure where both cricothyroid muscles are divided can be considered, in order to lower pitch. As other muscles remain intact, a monotone voice after surgery is less likely (Antoni & Sandhu, 2015). Surgical techniques for relaxing the vocal cords developed by Isshiki, Taira, and Tanabe (1983) have been used for transgender men (Hoffman et al., 2014; Ramacle, Matar, Verduyck, & Lawson, 2010). Currently, however, these surgeries are rarely carried out.

SINGING VOICE

In the voice of transgender men, testosterone may reduce or negatively impact on singing and performance voice (Scheidt, Kob et al., 2004). Some individuals may, therefore, seek the assistance of an SLT. The voice may still be in a process of change and the SLT can help monitor this and offer some help with voice stabilization and practice to access the newer, lower ranges of the voice. For transgender women, accessing higher pitch ranges is, generally, easier after spoken voice speech and language therapy has taken place. Gradual range extension exercises can prove very useful, such as glides and sirens. The issue for many transgender women, then, is to work on tone modification in the singing voice and developing a higher chest register and mixed chest and head register. Some voice specialist SLTs may have experience of working with the singing voice and can assist the client with regards to this, whilst maintaining a voice that is produced without undue vocal strain. Once speech and language therapy is completed, or near completion, the client may also benefit from singing lessons to develop technique, repertoire and performance confidence.

LEARNING POINTS

- Many transgender individuals seek voice, speech and communication modification to assist in their gender transition.
- SLT voice specialist services are increasing and are available in state funded health services, or can be accessed privately.
- The SLT may form part of the multi-disciplinary team of the transgender healthcare clinic, based in a hospital, or community clinic, or private clinic setting.
- The main goal of treatment is to assist transgender and gender nonconforming individuals to find and use voice and communication that reflects and fits with their gender identity.
- Voice and communication change is a staged therapeutic process. It involves practising exercises, which gradually increase in length and complexity, to develop skills and confidence.
- The SLT can guide transgender people with regards to larynx and voice surgeries.
- SLT is often regarded by transgender people (particularly women) as an integral part of successful social transition.

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FURTHER RESOURCES

ChristellaVoice MTF voice apps. Speech Tools Ltd.
 MTF Voice Feminisation with Christella Antoni. [youtube.com](https://www.youtube.com)
www.christellaantoni.com
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Chapter 24

TRANSGENDER IDENTITIES IN EDUCATION

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OVERVIEW

This chapter seeks to highlight the chasm of learning opportunities regarding gender identity within current school systems and the consequential needs of trans people within their educational setting. It positions trans identities and gender diversity within the broader array of Lesbian, Gay, Bisexual, Transgender, Queer, Questioning and Intersex (LGBTQI) communities. I understand gender diversity as no less than part of a great rich tapestry of life, rather than a medicalised or ‘health’ related phenomenon. In light of the increase in numbers of young people coming out as trans, or expressing gender variance within their educational settings, this chapter aims to offer some useful information, some necessary contextualising and some helpful signposting around their next steps and their journey towards trans inclusion and celebrating gender diversity in their settings.

INTRODUCTION

The visibility of trans people has increased significantly over recent years. In her article ‘(Trans)Forming Gender: Social Change and Transgender Citizenship,’ UK sociologist, Sally Hines writes of how ‘transgender has emerged as a subject of increasing social and cultural interest in recent years’ and she charts ‘the “cultural turn” to transgender’ and the ‘shifting attitudes towards transgender people’ (Hines, 2007). In “‘We Walk among You’: Trans Identity Politics Goes to the Movies,’ Sharon Cowan states, ‘culturally trans people are currently everywhere. In the United Kingdom, as well as other jurisdictions such as North America, the transgender movement, if it can be referred to as such, has gained widespread visibility and recognition, although not always positively’ (Cowan, 2009).

Given such an increase of trans visibility, this chapter sets out to consider how trans people (specifically students) exist and how trans identities (and gender more broadly) are discussed within the education sector in the UK. For the purposes of this chapter I use the term ‘trans’ to include a very wide and all-encompassing understanding of the diverse trans

communities, including non-binary people. Gender variance is also a term that I will use, which describes more a set of behaviours, rather than categorising an identity in and of itself. It can be useful to describe the behaviours of children who are not currently identifying themselves as trans and who may or may not go on to identify as such. Yet I do acknowledge that there are medical connotations to the expression ‘gender variance,’ as it does have its history within medical discourse. Other terms such as ‘gender dysphoria’ or ‘gender incongruence’ are terms that I wish to resist here also, due to their medicalising connotations. I position much of my thinking within a cultural, social and political context, rather than understanding gender variance as a health matter *per se* (although we will discuss health needs a little). I posit trans and gender diversity within the broader array of Lesbian, Gay, Bisexual, Transgender, Queer, Questioning and Intersex (LGBTQI) communities. I understand gender diversity as no less than part of a great rich tapestry of life.

Within university settings, Transgender Studies is a growing academic field, which not only examines transgender communities as ‘minority’ communities, but also engages in wider interrogation of how gender identities are produced (Stryker and Whittle, 2006). Within a wider framework of Gender and Sexuality Studies, Transgender Studies crosses various disciplines, such as sociology, history, cultural studies and other arts and humanities fields, as well as the sciences of biology, bio-chemistry, neurology, psychology and psychiatry. This multi-disciplinarity produces a rich, but often contradictory, set of understandings that do not easily come together in any single idea of sex, gender and what it means *to be trans*. This means that thinking about trans identities is a complex and messy business. Yet, it is important not to over simplify what it means to be trans, because reductive thinking can affect trans people negatively. It is my view that we would do better to invest time and energy into thinking about gender and gender diversity and to consider more fully the ways in which gender norms – the social expectations that manifest around how one should and should not express one’s gender – pervade society. In short, my argument is that we can (and should) work towards becoming more *intelligent* about gender in order to open up opportunities for all people, including trans people, to express their gender in rich and diverse ways.

Whilst students in university settings are given opportunities to grapple with discussion and debate around gender identity, there is very little discussion taking place in our schools. No doubt this has a direct impact on young people in schools coming out as trans, or those expressing gender variance. There is a direct relationship between the quality of life of trans people and the understandings of gender diversity that surround us. In short, the logic follows that if people were more aware that gender is diverse (and not simply a binary of just ‘boys’ and ‘girls’ and all the trappings that go along with those two categories) then trans people would not have such a bad time.

Over the past decade, I have straddled academic and community life - dedicating much of my time working with and supporting trans people, particularly young trans people. In 2008, I co-founded Gendered Intelligence¹. The logic for our company name came from thinking

¹ Our vision is of a world where people are no longer constrained by narrow perceptions and expectations of gender, and where diverse gender expressions are visible and valued. We work with the transgender community and all those who impact on trans lives. We specialise in supporting young trans people. Since 2008 Gendered Intelligence has delivered extensive work in the education sector delivering workshops and assemblies for students, delivering LGBTQI and trans awareness training to hundreds of schools. We have worked closely with SLTs with our consultation provision, supporting them with policy development and practices with a focus on gender diversity and transgender inclusion. We currently work with hundreds of young trans people each year through group activities many of whom have been and are victims of HBT bullying. This has given

through Howard Gardner's notion of 'Multiple Intelligence,' which argues that intelligence is not linear, but rather people can be intelligent in multiple ways – he specifically argues seven different ways (Gardner, 2006). After completing our first arts-based project, 'Sci:identity – What's the science of sex and gender?', which involved 18 young trans and gender questioning people delivering arts based workshops, it was noteworthy how, on the whole, our young members had an extraordinarily high level of intelligence when it came to thinking about gender². The young participants had the opportunity to interview various 'experts' in the field of medical science, within sex and gender specialisms. These included Dr Andrew Levy, endocrinologist; Dr Richard Curtis, a GP specialising in Trans Health; and Terry Reed, co-founder of the Gender Identity Research and Education Society (GIRES) in the United Kingdom. In many ways, the *need to know* generated by these young trans people gave these experts a run for their money. One example was when Dr Curtis sat down to be interviewed by a young person. The young person stated: "The first question we wrote down was: "What, if anything, is the relationship between a GP, a psychiatrist and an endocrinologist when treating a trans person? Do these disciplinary frameworks for understanding gender and transsexuality overlap and, if so, how?" to which Dr Curtis feigned falling off his chair. Later in the project, we delivered workshops to Year 10-13 students in secondary schools (ages 15-17). Here, some students admitted that they had 'never thought about this kind of thing before' and questions around what it means to *be* gendered or what it means to challenge gender norms (specifically through a trans identity) were found to be rather complex. This feeling was also shared by the various teachers, youth workers and professional staff that we came across, confirming how unconfident they felt, when thinking about the lives of trans people. The gap between the gendered intelligent young trans people and their peers and teachers was duly noted.

There is a political point to be made here about the possibilities of learning and developing an intelligence about gender. Gardner's argument (2006) posits that everyone can become more intelligent in the different ways or types that he sets out. Likewise, anyone can be intelligent about gender. However, whilst most school students are not exposed to learning opportunities about diverse sexualities and gender identities to any large degree, many undergraduate programmes will explore them. Of course, not all school students go onto higher education and certainly not all professionals (including those working in education) will be taught such things as part of their ongoing professional development and training.

Much has happened since our first project in 2006, not least the increase in the number of young people coming out as trans, or expressing gender variance within their educational settings. Yet the teaching and learning opportunities about gender diversity have not moved on swiftly enough. In addition, (and perhaps consequently) many schools are worried about the retention and attainment of their young trans students. Heads of schools and their senior leadership teams identify a lack of understanding and confidence from their staff, when

us an extensive understanding of the lived experiences of gender variant young people in their school settings and elsewhere. We have consistently and successfully embedded this knowledge into our professional development and work in education. See www.genderedintelligence.co.uk.

² Funded by the Wellcome Trust in 2006, undertaken by project manager Catherine McNamara from Central School of Speech and Drama, Jay Stewart as a freelance artist and documentary maker and evaluator Dr. Alison Rooke of Goldsmiths College, University of London. See www.scidentity.com for more information including the evaluation report of this four-phased project. A documentary was also produced and is screened as part of our dissemination or training opportunities at Gendered Intelligence.

working with trans students, and they are also unsure about what it means to be compliant with equalities legislation, as well as other governing policies such as safeguarding.

Today, Gendered Intelligence supports all professional settings to develop and improve their trans inclusion and gender diversity good practices. Our vision at Gendered Intelligence is of a world where people are no longer constrained by narrow perceptions and expectations of gender, and where diverse gender expressions are visible and valued. Our aims are to increase understanding of gender diversity, to raise awareness of trans people's needs and to improve the quality of life of trans people, and young trans people in particular. We engage the wider community in positive discussions, debates and activities, which will make these changes a practical reality. We run trans youth groups in London, Bristol and Leeds for ages from 8-25. We also provide a range of services for all professional settings, including Public Sector, Commercial Sector and not-for-profit organisations. These include: membership for professional services, training and presentations for staff, professional consultancy, policy development and other special projects. Gendered Intelligence also provides a range of services for all educational settings including schools in Key Stages 1-2 and 3-4, further education colleges and higher education institutions, as well as other educational programmes such as pupil referral units or schools in hospitals across England and Wales. We deliver educational workshops and school assemblies to students, lectures, presentations and educational workshops to students in further education colleges and higher education institutions, as well as training and presentations for staff. In addition, we deliver mentoring for young trans people in schools, sixth form colleges, further education colleges and higher education institutions. Our approach at Gendered Intelligence has always been to be positive and non-judgemental of the educational institutions that we work with. It is our experience that schools, colleges and universities are, on the whole, keen to adopt pro-active and anticipatory strategies to create respectful and inclusive learning environments for their trans students. Typically, Gendered Intelligence is brought in to help staff manage the period when students transition, but also to tackle specific problems that arise, such as bullying behaviour from other students. Other staff are keen to develop strategies, policy, procedures, resources and/or guidance around what it means to include trans people in their school community.

YOUNG TRANS AND GENDER VARIANT PEOPLE IN SCHOOL SETTINGS

When a young person comes out as trans, or is expressing gender non-conformity in their educational setting, the staff can feel uncertain as to how best to support them and, sometimes, quite isolated. Often, senior management team members want to know what is legally required of them, but also how they can go the extra mile to ensure that trans students feel safe in their settings. The key piece of legislation that protects trans people from discrimination and harassment in school settings in the United Kingdom (UK) is the Equality Act (2010). There may be similar legislation in other countries. Trans people, including those under 18 years old, are understood as having the characteristic of 'Gender Reassignment.' The Equality Act (2010) states: "A person has the protected characteristic of gender reassignment if the person is proposing to undergo, is undergoing or has undergone a process (or part of a process) for the purpose of reassigning the person's sex by changing

physiological or other attributes of sex.³ Whilst ‘gender reassignment’ has medical connotations, there is an emphasis in the Act on the ‘social’ transition, rather than ‘medical’ transition, of the trans person. Socially transitioning is the series of activities a person will undertake in order to share more fully their self-identified gender as something that is different to the gender that they have been assigned at birth. The process (or part of a process), that the Act refers to, includes making changes to various visual or linguistic signifiers, such as name changes, asking for others to use a different pronoun, and making changes to appearance such as haircuts, clothes and make-up⁴. Alongside legislation there is various written documentation from government departments and local authorities, as well as third sector organisations that offer schools guidance⁵. Nonetheless, whilst many members of staff want to do the right thing for the young person, they can feel quite uncertain and, indeed, deem the work as ‘risky.’ Those staff members will often reach out to organisations in the third sector, especially when thinking about practical matters such as: uniform, single sex facilities (toilets and changing rooms), changing records (names and gender markers), sharing information with students and staff, physical education, sex and relationship education, prom night, pastoral support, etc. There is a bigger picture here too, which is to use the opportunity to drive through important messages around the ethos of the school, concerning being inclusive and welcoming diversity. Revisiting things like mission statements, ethos, values and statements of commitment can be valuable. In addition, reflecting on their Anti-bullying policies, Equality and Diversity policies, Uniform policies and ‘Transitioning at school’ policies give schools the opportunity to spell out their (new) stated approach to trans inclusion and celebrating gender diversity throughout the school. There is a current consensus across most sectors that services are generally better when they are designed to take account of different people’s needs, and schools and other educational institutions are no exception here. Yet, thinking about gender diversity and trans inclusion is relatively new, and there is still much work to be done.

³ <http://www.legislation.gov.uk/ukpga/2010/15/contents>.

⁴ With regards to medical intervention, there are lots of misconceptions around what happens with people under the age of 18 (legal children) and sometimes staff can panic that young people are making decisions that will have irreversible effects. However, when a young person reaches a particular stage in puberty development it maybe that they wish to explore options around hormone blockers. It will not be until they are 16 that they will go onto ‘cross-sex’ hormone therapy and 18 before they have surgical intervention (See Chapters 17-21).

⁵ For instance: DCSF (Department for Children Schools and Families) now DfE (Department for Education), have produced Guidance for schools on preventing and responding to sexist, sexual and transphobic bullying: <http://webarchive.nationalarchives.gov.uk/20130401151715/http://www.education.gov.uk/publications/eOrderingDownload/DCSF-01141-2009.pdf>. EHRC (Equality and Human Rights Commission) produced Technical Guidance for Schools in England. Whilst general, it includes specific trans examples: <https://www.equalityhumanrights.com/en/publication-download/technical-guidance-schools-england>. Intercom Trust, produced ‘Cornwall Schools Transgender Guidance.’ <http://www.intercomtrust.org.uk/item/55-schools-transgender-guidance-july-2015>. There is also ‘Transgender Guidance for Wrexham Schools 2015.’ http://www.schools-out.org.uk/wp-content/files_mf/1470607662TransGenderGuidanceSchoolsFinal.pdf. Stonewall’s ‘Supporting LGBT young people’ also has some important sections specifically around trans students: https://www.stonewall.org.uk/sites/default/files/an_introduction_to_supporting_lgbt_young_people_-_a_guide_for_schools_2015.pdf.

TRANSPHOBIC BULLYING IN SCHOOLS

In 2014, in the UK, the Department for Education commissioned a pilot phase and a subsequent set of work aimed to tackle Homophobic, Biphobic and Transphobic (HBT) bullying in schools⁶. The evaluation of the work by NatCen found that HBT bullying behaviour comes out of a series of attitudes that link as much to sexism and misogyny as to an ignorance and fear of LGBT people and communities⁷. Sexist bullying is when you are bullied *because of* your gender and can happen to both boys and girls. It generally occurs when someone has stereotypical ideals of what boys' and girls' roles should be. It normally occurs because boys (or men) believe that girls (or women) are subordinate and relates to the heteronormative principles and patriarchal structures of power. Heteronormativity is the framing that assumes, and states as 'normal', that all people will go on to identify as the gender assigned at birth (male or female) and also as being heterosexual. Sexism can be quite pervasive and difficult to pin-point and it can also be connected to sexual bullying. Homophobic bullying is understood as bullying behaviour towards a person because of their sexual orientation, or perceived sexual orientation, specifically because of their relationships with, and/or desires for, someone of the same gender. However, homophobic bullying could also happen when a person does not fit into the stereotypical roles of men or women or boys or girls, for instance, a boy behaving in a way that is deemed more feminine or a girl behaving in a way that is deemed as masculine. Simple examples would be girls doing rough and tumble play and boys crying. In this way homophobic bullying is related to gender expression and highlights the expectations that we have to conform to gender norms as well as to being heterosexual. In this sense there is overlap or similarities with homophobia and transphobia. Transphobia is the behaviour of ridicule or repulsion when a person expresses their gender in ways that do not meet social expectations with their assigned sex at birth (as either male or female). Examples of transphobic and gender related bullying could consist of mean-spirited name-calling about a person's gender identity or gender expression, obscene and/or sexualized gestures, as well as harassment, teasing, taunting or making threats. Spreading rumours about a person's gender identity, or unwanted disclosure of someone's gender identity, are also forms of bullying. If bullying is not addressed appropriately in schools, it reinforces to everyone that it is okay to discriminate. Bullying that is not dealt with promptly and effectively can escalate into criminality. As part of its crime reduction programme, the Crown Prosecution Service (CPS) in the UK created a hate crime work pack that states that homophobic, biphobic and transphobic bullying can lead to hate crimes. Transphobic hate crimes are considered serious, because they not only have an impact on the person, but also on the wider transgender community, who are made to feel unsafe. The CPS state:

"They [LGBT related hate crimes] attack people's right to feel safe and confident about their sexual orientation and their gender identity. As with all incidents and crimes that are motivated by prejudice and hate, they have a devastating effect on those who are targeted." (CPS, 2014). In addition, transphobic words and behaviours feel like attacks on the person's identity and self-worth. This means that they often hurt more deeply. Ofsted (the Office for

⁶ An evaluation of the pilot phase was published in 2016 by NatCen: <http://natcen.ac.uk/our-research/research/evaluation-of-anti-hbt-bullying-programme/?gclid=COPdrbjcgtACFe0Q0wodnV4PRQ>.

⁷ NatCen is Britain's largest independent social research agency. See: <http://natcen.ac.uk>.

Standards in Education, Children's Services and Skills), who regulate services that care for children and young people in the UK, define unacceptable behaviour and bullying as being:

"name calling, racist and sexist behaviour, making threats, making people feel small, hurtful remarks and personal comments, dares which make someone do something they do not want to, whispering about others, laughing at a hurt or upset person, preventing someone getting help, ignoring people and leaving them out, mocking differences, damaging work or belongings, hiding belongings, and pressuring children to join in inappropriate behaviour."

When Ofsted carry out their inspections they look for: "types, rates and patterns of bullying and the effectiveness of the school's actions to prevent and tackle all forms of bullying and harassment - this includes cyber-bullying and prejudice-based bullying related to special educational need, sexual orientation, sex, race, religion and belief, gender reassignment or disability." Ofsted state that schools should ensure that their curriculum, including personal, social and health education, teaches pupils about all aspects of individual difference and diversity. Pupils should be taught about differences related to race, appearance, religion, disability and ability, sexuality and gender identity. Ofsted also look at the "effectiveness of the school's actions to prevent and tackle discriminatory and derogatory language." The case for developing ideas around gender diversity is clear enough. Behaviours and words expressed, that work to undermine and demean others, can have devastating results for everyone involved.

MENTAL DISTRESS

One could argue that, not some, but *all* young trans people experience transphobia - not only due largely to a lack of general understanding by people and society in general, but also due to the absolutely entrenched gender binary system that operates in society, and certainly in schools, together with such deep seated social expectations to conform to gender norms. In order to flesh this out a bit, I want to share with you the story of a young trans person – let's call her Keira [this is not her real name]. This is not an extraordinary story, but instead, rather ordinary for us at Gendered Intelligence. Keira says:

"I got good marks in my A' levels. I did maths, further maths, biology, chemistry and physics. And I got a place at a top university. I'm in my first year now, but I'm struggling. I get scared easily. I feel uncomfortable all the time. I don't mention that I'm trans but I think it's not hard to guess. I don't talk to anyone. From about the age of 13 life got more difficult. I spent time in my bedroom. I didn't socialise. I kept myself to myself at school. I've not had any friends for years. I went on the Internet to find out about gender stuff. And told my mum about my gender identity when I was 17. At home, I have mum, dad, and an older sibling. I feel supported by them. But it's a negative experience living [in halls] at University. My attendance is now at about 50%. I can't bring myself to go. I don't like being around people. I feel scared. I would like to do normal things without feeling scared. I have abysmal confidence levels. I'm on anti-depressants. I get the sense that nothing is helping. I have low energy. I'm just not fussed about anything. And I'm fed up 'cos nothing is helping. I'm trans and I call myself trans but I wish I wasn't trans. I don't like myself - because of being trans

but other things as well. I've had to drop out of University. I hope to go back some time. At the moment, I just kill time. I don't do anything.⁸

Keira's experience, her mental distress and the barriers she faces are related to transphobia. Transphobia can be difficult to pinpoint, but the effects of transphobia are easier to spot. It is living in fear that someone, somewhere is going to be cruel or unkind. Living with the fear that this could come from anyone and from any direction, means living an extremely stressful life. The reasons that prevent many trans youth from achieving their potential are largely due to this embedded fear. In 'Queer Youth, Suicide and Self-harm' McDermott and Roen (2016) state: "Marshal et al.'s (2011) recent meta-analysis found that 28 per cent of sexual-minority youth reported a history of suicidality compared to 12 per cent of heterosexual youth, and this disparity increased as the 'severity' of suicidality increased. For young trans people, the prevalence rates are even higher (Grossman and D'Augelli, 2007; Bailey et al., 2014; Nodin et al., 2015)". In a report called 'Youth Chances' (2013), of just under 1000 young trans people who completed the survey, 72% claimed to be currently self-harming or have in the past self-harmed (<http://www.youthchances.org/>). 'Engendered Penalties' (Whittle et al., 2007) tells us that 31% of trans people attempt suicide and 73% experience harassment. The report states, "young transgender people are particularly vulnerable to discrimination and harassment." Evidence of mental distress and suicidality amongst our young trans population is sufficient, however, McDermott and Roen (2016) also note that 'there is only a scant understanding of why being young and having a marginalised sexual or gender-identity increases the risk of suicidal distress and self-harming'. Consequently, they are curious as to 'why... some queer(ed) young people, who experience known 'risk factors,' hurt themselves, while others do not?'

McDermott and Roen (2016) remind us of the link between feelings generated and being in the world: 'We are working with the idea that the emotional is not figured solely as residing in the individual (in the form of sadness, for example), but instead is understood as relational and implicated in the production and maintenance of norms. If we reconceptualise emotion as being in relation to the social, rather than exclusively as psychological or psychobiological, we might come to think of self-harm, and suicide differently.'

CONCLUSION

I argue that there is a direct correlation between the social norms that attribute a 'wrongness' to gender variance and the mental distress experienced by gender variant people. The lack of positive representation, or not being represented or reflected *at all* in the culture surrounding us, also can create or induce mental distress. Certainly, there is very little about trans and gender variant lives reflected in school life, however, we might agree that schools are an excellent place to focus energies on tackling gender stereotyping, celebrating diverse gender expressions and challenging gender norms. Some schools are outstanding in their support and provision for young trans people. Yet, we need more coherence and a standardised approach to supporting young trans people in and through their education. Trans inclusion in our education system is not rocket science. Splitting the girls from the boys without a first thought is old fashioned and detrimental, not only to trans people, but to

⁸ This case study was used at the Stonewall Education for All conference 2015.

everyone. Prioritising gender diversity and challenging gender stereotyping works to encourage more girls to go further with their education in science, engineering and technology as it does to support boys who wish to pursue more ‘caring’ professions, such as nursing and early years’ practices. Both of these feature in current UK government thinking.

The Personal, Social, Health Education (PSHE) curriculum, anti-bullying work, diversity events and LGBT History Month are some of the ways that gender diversity can be made visible and valued in schools. Embedding gender diversity within other areas of the curriculum, ensuring there are library books that discuss and debate gender diversity, giving reference to LGBT people in published materials or through web presence, as well as valuing and making more visible LGBTQI staff, students and parents/carers within the school community, are additional ways to increase awareness. Students are often taught to recognise and value diversity, to respect difference, to have a responsibility to others and to assertively challenge prejudice and discrimination. We are not born with prejudice. We learn it. But we also learn to be kind. Teaching kindness requires consistency, commitment and hard work. It is my view that, in our schools, teaching kindness must come before numeracy and literacy. Where we witness unkindness, we must intervene as teachers and as students – in the classroom, in the corridor, in the streets and on-line. It is through acts of kindness that we will move the game on, and allow Keira and others like her to not feel scared.

LEARNING POINTS

- ‘Trans’ is a term to include a very wide and all-encompassing understanding of the diverse trans communities, including non-binary people. Thinking about trans identities is complex. Yet, it is important not to over simplify what it means to be trans, because reductive thinking can affect trans people negatively.
- There is a direct relationship between the quality of life of trans people and the understandings of gender diversity that surround us. There is a direct correlation between the social norms that stipulate a ‘wrongness’ to gender variance and the mental distress experienced by gender variant people. The lack of positive representation, or not being represented or reflected *at all* in the culture surrounding us, also can create or induce mental distress.
- Many schools, colleges and universities are worried about the retention and attainment of their trans students. They are, on the whole, keen to adopt pro-active and anticipatory strategies to create respectful and inclusive learning environments for their trans students.
- There is current consensus across most sectors that services are generally better when they are designed to take account of different people’s needs; schools and other educational institutions are no exception here. Yet, thinking about gender diversity and trans inclusion is relatively new and there is still much work to be done.
- Socially transitioning is the series of activities a person will undertake in order to share more fully their self-identified gender as something that is different to the gender that they have been assigned at birth. This can include name changes, asking for others to use a different pronoun, and making changes to appearance such as haircuts, clothes and make up.

- Homophobic, Biphobic and Transphobic (HBT) bullying behaviour comes out of a series of attitudes that link as much to sexism and misogyny, as to an ignorance and fear of LGBT people and communities. HBT bullying could happen when a person does not fit into the stereotypical roles of men or women or boys or girls. Transphobic hate crimes are considered serious, because it is not only the impact that they have on the person, but the impact on the wider transgender community, who are made to feel unsafe. Trans people experience transphobia due to the entrenched gender binary system that operates in society, and certainly in schools, together with such deep seated social expectations to conform to gender norms.
- Embedding gender diversity across the curriculum, ensuring there are library books that discuss and debate gender diversity, giving reference to LGBT people in published materials or through web presence, as well as valuing and making more visible LGBTQI staff, students and parents/carers within the school community are additional ways to increase awareness.

FURTHER READING

Meg-John Barker and Julia Scheele (2016). *Queer: A Graphic History Paperback*. London: Icon Books Ltd.

Andrew Moffat (2015). *No Outsiders in Our School: Teaching the Equality Act in Primary Schools*. London: Speechmark Publishing Ltd.

<http://itspronouncedmetrosexual.com/>

FURTHER RESOURCES

<http://genderedintelligence.co.uk/>

www.schools-out.org.uk/, <http://the-classroom.org.uk/>

<https://www.diversityrolemodels.org/>

<http://www.educateandcelebrate.org/>

<http://www.stonewall.org.uk/>

Organisations

Gendered Intelligence

Activities, support, training and resources for trans people and those who work with and support them across the UK; youth services for the under 25s.

genderedintelligence.co.uk

Mermaids

Forum space, summer residentials and information for young trans people (<19) and parents.

www.mermaids.freeuk.com

GIRES (Gender Identity Research and Education Society)

Promotes research, campaigns, provides publications, especially in medical/healthcare field.
www.gires.org.uk

Scottish Transgender Alliance

Campaigns, researches, builds alliances and has a selection of excellent downloadable reports (some Scotland-specific, some UK-wide) and guidance notes.
www.scottishtrans.org

UK Trans Info

A hub for resources that also promotes activism and campaigning.
<http://uktrans.info/>

Trans Media Watch

A charity dedicated to improving media coverage of trans and intersex issues.
www.transmediawatch.org/

Schools Out

A range of information, campaigns and resources for educational environments and professionals.
www.schools-out.org.uk/http://the-classroom.org.uk/

Educate and Celebrate

Offers teacher training and resources to support development of an LGBT + Inclusive curriculum.
<http://www.educateandcelebrate.org/>

Diversity Role Models

Workshops for young people led by LGBT role models and allies, addressing bullying.
<https://www.diversityrolemodels.org/>

Stonewall

National LGBT campaigning and education charity with a range of programmes and resources. Stonewall became trans inclusive relatively recently and is currently working to make all programmes trans-inclusive.
<http://www.stonewall.org.uk/>

Guidance and Teaching Tools**Cornwall Schools Transgender Guidance**

Intercom Trust, 2015 (edition 2)

A good example of how to include and make appropriate provision for young trans people in a school environment.
www.intercomtrust.org.uk/resources/cornwall_schools_transgender_guidance.pdf

Trans Inclusion Schools Toolkit

Brighton and Hove City Council, Allsorts Youth Project, v2, 2014.

www.school-portal.co.uk/GroupDownloadFile.asp?GroupId=891984&ResourceId=4950 802

Classroom Project

School's Out

Lesson plans and resources by key stage/by subject to help teachers introduce LGBT issues.

<http://the-classroom.org.uk/>

Schools Project Homophobic and Transphobic Bullying and Hate Crime

CPS (Crown Prosecution Service) North West

Full teacher pack including videos information and lesson plans.

www.cps.gov.uk/northwest/get_involved/hate_crime/schools_project___lgbt_hate_crime/

It's Pronounced Metrosexual

<http://itspronouncedmetrosexual.com/>

Guidance for Schools on Preventing and Responding to Sexist, Sexual and Transphobic Bullying

DCSF (Department for Children Schools and Families) now DfE (Department for Education), 2009.

No Place for Bullying

OFSTED, June 2012

Case studies, summary and full reports.

www.ofsted.gov.uk/resources/no-place-for-bullying

Technical Guidance for Schools in England

EHRC (Equality and Human Rights Commission), July 2013

Whilst general, this includes specific trans examples.

www.equalityhumanrights.com/uploaded_files/EqualityAct/PSED/ehrc263_code_england_v3.pdf

Trans Staff and Students in HE and Colleges: Improving Experiences

<http://www.ecu.ac.uk/publications/trans-staff-and-students-in-he-and-colleges-improving-experiences/>

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Chapter 25

EMPLOYMENT ISSUES: A PERSONAL VIEW

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OVERVIEW

Getting and keeping careers—even just jobs—can be difficult for gender-variant/creative people, and for adults who transition after establishing a career or building a business. When gender issues are a part of the mix for an individual, there are a number of concerns of which to be aware. As well, there are ideas and “tried and true” principles to help navigate being trans or supporting someone who is trans in their workplace. Education, mutual respect, professional regard are all important, but upper management that is committed to diversity, is willing to visibly live the values they espouse, to insist that everyone follows the example they provide, and actively demonstrates that there is no place for adverse treatment or discrimination, no matter how covert, so that everyone knows they mean it, is a critical asset for a transgender, gender-variant, or gender-creative employee, job hunter, or career seeker.

INTRODUCTION

When we are young, sooner or later we learn that the adults all around us—when they are not tending to our immediate needs—are most often engaged in various activities called “work.”

The man driving the bus is working; the woman at the grocery counter who takes your mother’s money is working. Perhaps your father and your mother both go off somewhere to work most days; or one or both of them works at home. Work is everywhere. We are encouraged to think about what we would like to be when we grow up, which means, really, what kind of work would you like to do? We are often told that “boys don’t do that kind of work,” or “girls wouldn’t want to do work like that,” or “that’s not a real job; you can’t make enough money wrapping presents all day!” If we’re lucky, we’re told, “that’s an interesting idea! That would be excellent work.” Because it doesn’t matter what a small child chooses; it’s unlikely that life will turn out as one imagines, anyway. What matters is that the child

receives encouragement to engage with the world. Those simple, guiding suggestions, like “wouldn’t you want to be a furniture salesman, like your dad?” or “see how you like to feed the ducks at the park? You could grow up to be a zookeeper!” can have portentous meaning, even though they’re not necessarily meant to be taken seriously. “Look how she watches the clerk make change: she’s going to be an international banker, I just know it!”

MY STORY

My own younger brother thought for years that he would grow up to be an orthodontist because our dad told him he should, declaring then he would be wealthy enough to take care of our dad in his old age, since he’d paid so much money to an orthodontist for my brother’s braces. Never mind that the boy had no attributes or interests that would lead him toward a dental profession. The poor kid didn’t figure out that he could choose some other occupation until he was in high school, and even then he still didn’t know what it would be. No worries, though; he slogged through a 4-year university program in economics and got a job with an insurance company, dealing with automobile claims. He worked there for over 30 years, meanwhile doing all the basic things expected of a man: marrying, begetting a child, buying a home, divorcing, marrying again, more children, another home, grandchildren, downsizing to a motor home as he and his wife prepare to retire to a life of leisure on the open road in the American west. I, on the other hand, as a gender-incongruent child, was plagued with other challenges. I could not imagine myself growing up to be a woman, as my young body erroneously foretold my terrifying future. Much of the time, in my pre-teen and teenage years, people perceived me as male, even when I was wearing “girls’ clothes.” To be honest, I felt more male than female, but I knew of no context in which to express that in any meaningful way that would not be met with resistance, ridicule, or outright punishment.

Through the 1950s and ‘60s, I struggled to find ways to live authentically that would not make me a socially awkward spectacle inspiring laughter at my expense, or would not render me unemployable. From the time I was in primary school, it had been my dream to be a writer, one who could influence people’s thoughts and feelings without having to be seen by anyone. By the time I had earned my Bachelor’s degree in English Literature, followed by a 2-year Master of Fine Arts program in English (creative writing), it had dawned on me that writers were needed in many places, and maybe I could find work with an advertising agency or some corporation. I ended up in a construction job with the telephone company, where I became the first female-bodied person to qualify for a “top-craft” position. I worked (mostly) outside for 3 and ½ years, dressed in jeans and work shirts, coveralls and work boots, a hard hat and safety glasses, and a tool belt, and I had a company truck full of tools and materials. It was quite an adventure, really. In that position, I learned a lot about men at work, and about the obstacles that women faced in the workplace, while my gender dysphoria was suspended somewhat because of the challenges I faced in the physical aspects of the job, and in the social aspects of anti-feminism in a context where it was important to earn the respect of one’s co-workers, so that if you needed help at some point out in the field, you could rely on your crew members.

I endured a lot of teasing at first, but eventually I won them over. Still, after a little over 2 years, I actually began to be bored by the job, and I ultimately left to look for more

intellectually stimulating employment. What I had learned at the telephone company had given me a strong enough foundation that I was able to talk my way into a position as a technical writer with a medical device design, manufacturing, and sales company. It was then the early 1980s, and I had settled on what I felt was an acceptable wardrobe for my professional life: boy's slacks, boy's Oxford shirts (I was too small for men's sizes), a blazer-style jacket from the women's department at Macy's (because neither men's nor boy's blazers would fit me then, and I was a bit worried about seeming too much like I might have been "pretending" to be male). My greatest concession to what I imagined to be fanciful femininity was to wear red Nike running shoes – because men would not wear shoes like that, and I imagined that something frivolously fashionable (unusual shoes?) would signal that I was female (huh? What foolishness! After all, what self-respecting businesswoman wears the same shoes EVERY DAY?). The most difficult aspect for me of being at work in those days was my own self-consciousness about my inability to fit in as either feminine or masculine. In reality, most people simply accepted me as I was. Looking back on this time, it seemed that as long as I did my work well and presented myself as collaborative, competent, and concerned for the success of the enterprise, I actually got along pretty well with everyone. In some ways, I was my own harshest critic, having internalized almost incessant messages from peers and superiors (such as parents or other more mature adults, not just bosses) that there was something unusual about me that was making other people uneasy, and it was up to me to take corrective action so that others' discomfort might be relieved. No matter how much workplace success I experienced in the form of positive performance reviews, regular wage increases, and justified promotions, I still was always aware of my failings as a woman, and of the solidity of my masculinity. My gender dysphoria was increasing again.

By 1988, I had done enough researching and soul searching to know that I needed to transition from female to male, and to have located the medical resources I required. By that time, I was working at a major Silicon Valley computer design and manufacturing company as the System Software Publications Manager. The "sex reassignment program" administrator advised me that I might consider changing careers, or moving to another city or region of the country so that no one would know about my past. I waved those suggestions away. I had determined that I would not be ashamed of myself any longer. Within a year of starting my hormonal treatments and 6 months post-chest reconstruction, I was giving educational lectures and participating in panel presentations at colleges and universities about gender-variant people at the rate of roughly one talk per month. For the most part, these talks focused on personal experience, and it gradually dawned on me that, while it undoubtedly was (and still is) valuable to share individual stories, it was fundamentally important to destigmatize transgender (then called transsexual—though, as the reader must know by now, the two terms are not interchangeable, but encompass different groups) people so that others would realize that we are everywhere. We are just like anyone else, and we do not deserve to be scorned or mistreated. Trans-ness must be demystified so that trans people can become integrated in the larger communities where we live and work, so that the same opportunities for self-actualization that are available for anyone are not cut off when a trans person appears at the door, or when someone already inside the institution is discovered to have a history of trans-ness. What we need to do, over and over again, is inform people who do not understand trans people that there is nothing to be afraid of when a trans person is present.

EMPLOYMENT ISSUES

As we began in the mid-1990s to achieve non-discrimination protections based on gender identity or expression in addition to sexual orientation in some municipalities across the US, my educational lectures morphed into consultations with business managers who were either trying to understand their transgender employee, and worrying that other employees would be upset if they “condoned” the trans person’s “behavior,” or trying to understand what they did wrong when they condoned harassing behavior toward their transgender employee. What I’ve learned after over 25 years of educating in diverse workplace settings about accepting a transgender colleague and letting go of one’s preconceived notions about what being transgender means, is, essentially, that people fear and lash out at what they don’t understand, and a successful workplace transition depends largely on the quality of one’s work and one’s work relationships.

Transitioning “on-the-job” can be complicated or difficult, but it’s also possible today to transition with full support from your employer, providing they have non-discrimination policies in place that specifically cover transgender people, or that the business is operating in a jurisdiction where such discrimination is unlawful, or it is clear that anti-trans discrimination is prohibited on the basis of sex, and management is cognizant of the employer’s responsibilities under the law. It is most difficult when there is absolutely no acknowledgment of diversity and inclusion, when job functions are rigidly segregated by sex, or in environments where employees are mostly homogenous and have low levels of education. The exception to this rule occurs when the trans person is recognized already as being different somehow from their workplace peers, yet they are well-liked and regarded as a valuable contributor to the team effort. Sometimes trans people, before their transition, or as they are contemplating their need to transition and worrying about what might happen at their job, will withdraw from relationships and try to just focus on their work. Perhaps they’re trying not to connect because they don’t want to deal with the rejection they fear is coming once they reveal who they are. This usually is not a good tactic. Distance and avoidance only create distrust, and may even make one a target for ridicule or abuse. There are no guarantees, of course, but an effort to be likeable, cooperative, collaborative, and to demonstrate one’s competence on the job without seeming self-centred usually will go far to engender goodwill, which stands a chance of extending to personal support during and after one’s transition. And sometimes there is nothing one can do that will deflect a tidal wave of disrespect, teasing, bullying, silent staring, obvious whispering while shunning, and formerly supportive managers who suddenly find fault with one’s work performance when nothing has changed but one’s gender presentation, pronoun, (sometimes) name, and the designated sex on one’s records. Those changes may not seem like much to the trans person who has been contemplating this process for (usually) years, but for others in the immediate vicinity, these changes may seem like an earthquake in their lives, and they know no other way to respond than to create the backlash wave of destructive hostility that usually ends up sweeping the trans person out of the workplace.

In this situation, the only thing that has a chance of saving the situation is if there is an upper level manager who models the accepting behavior the trans employee needs, makes it clear that harassment will not be tolerated, and provides for training to educate employees who are the immediate co-workers of the transitioning employee, and to answer their

concerns and questions, as well as to provide additional resources to managers and supervisors so they feel equipped to respond to other employees' concerns about the transitioner, without undermining the process or the working relationships. Such training should come from an external provider, ideally a trans person who is well-versed in the dynamics of workplace settings, management concerns, co-worker concerns, any relevant legal protections for trans people, as well as the medical, legal, and social history of trans people, and who is prepared to answer ANY question put before them. The transitioning employee should resist the role of trainer in their own organization, even if they are qualified to deliver it, and anxious to explain themselves. This is a matter of privacy and confidentiality for everyone concerned. It's very easy for a person in early transition to mistake a simple question, such as "How's it going?" for an invitation to describe every aspect of their hormonal and surgical process, which is usually Too Much Information (TMI; that's a technical term). People may ask uncomfortable or inappropriate questions ("Will your new genitals work?"), and an outside consultant can respond dispassionately, factually, and also deliver the message that, "I understand your curiosity about that, and this is the place to ask about it. I can describe the various types of surgery that trans people may obtain, and point you to some further published resources if you want to know more, but I need to point out to everyone that this is precisely the kind of question that you should not ask a co-worker in a public, or a private space in the workplace. Your colleague may answer you, and feel badly about that later, sensing they were coerced into revealing personal information, and they may file a discrimination complaint or lawsuit naming both the company and the questioner on the grounds that you have created a hostile work environment, or failed to provide a safe workplace. Whether or not the claim is valid is beside the point; the point is that an employer should do everything in their power to ensure that personal information is not shared through the formal activities of the workplace, so that employees are not inadvertently placed in compromising or vulnerable positions, and employees should not behave in ways that may subject the employer to litigation." It's very difficult for employees to convey this information without sounding hostile themselves.

However, not all trans people are going to go through a "transition at work." Some people finish school (or leave school without finishing), transition and then look for jobs, or change careers or locations—move to a different village, town, or city—for various reasons, and then find themselves in the job market. And some people never "transition," but consider themselves gender-queer, or a-gender, bi-gender, or non-gender, or all manner of permutations of different ways people may perceive or want to express their gender. Both medical transitions and social transitions—and diverse manifestations of gender identity without medical intervention—present different issues for the trans person, and for the employer and co-workers.

Usually the biggest issue for an employer is "getting the work done to meet the forecast, to keep the business running, and to make a profit for the shareholders." That means keeping the work flow going smoothly, ensuring there is little or no lost or wasted time or materials, maintaining quality of performance and products, and hiring people who will show up, fit in, and aspire (generally) to the same objectives as the enterprise espouses. The sudden introduction of a trans person into the mix can (the employer fears) cause an immense distraction from the business day. Usually, a good training for the appropriate people can reduce that disruption period to about two weeks; without training and policy consulting, it

may cost the company perpetual low-level disruption until there is some attrition, either by the trans person, or by their antagonist(s)—a far higher cost than a competent consultant.

When I first began doing corporate/business training in support of workplace success for trans people, it was very common for human resources and other managers or directors to say to me, “We don’t need that training; we would never hire a person like that.” All I could do was smile and say, “You’d be surprised. You probably already have; you just don’t know about them.”

“Oh, no,” the manager would assure me. “I’d be able to tell.”

“Really?”

“Of course! They’re very obvious, you know. Man-in-a-dress, and all that.”

“I see... Well, if they were an extremely skilled female impersonator or cross-dresser, you actually might not be able to tell, but I grant you that you can usually identify a man in a dress. The fact is, though, that trans women are not men in dresses; they are women in women’s clothing. And then there are trans men. They are not women, but men in men’s clothing.”

“Nope, we’ve never had one of them here, and I don’t expect we ever will. Thanks for stopping by. Don’t call us; we’ll call you.”

But they would call, eventually. Sometimes years later. Usually when they were in crisis mode because an employee had come forward to say they were going to transition, and management didn’t know what to do. For the trans person, coming forward to their manager, or to the Human Resources (Personnel) Department, is typically fraught with apprehension. Unless they are fortunate enough to be working in a very open company or group, where everyone is extremely accepting of differences of any kind, the greatest fear is that one may be summarily dismissed. Even though workers are theoretically protected from such actions, not everyone is aware of the non-discrimination laws or regulations in their own jurisdiction, or their workplace’s policies (or lack of them). So having those laws, regulations, or policies in place does not necessarily protect one from being unfairly sacked. What the laws and regulations do is provide a remedy to right the wrong, or to receive compensation for damages that were inflicted by the wrongful act(s). Of course, one must file a complaint through the proper channels and pursue the matter, often with the help of a lawyer, all of which takes diligence, time, and money that few trans people possess. One of the major fears that people have about finding that someone they know is trans is that the condition has something to do with sexual behavior, and that takes us straight to the restroom issue. In one factory setting where I delivered training, one male co-worker of the male-to-female transitioner asked me, “So he thinks he’s a woman. Does that mean he’s going to start coming on to me?”

My answer: “No, not at all. She’s going to be doing her job, just like she’s always done.”

And then a female co-worker asked, “So, he’s married to a woman. Does that mean he’s a lesbian? And is he going to start using the ladies’ room?”

My answer: “I can’t answer any questions about her sexual orientation because that’s private, between her and her partner, but she is entitled to use the women’s restroom. She may choose not to do so right away, because she wants to give you all time to get used to her. Because her appearance will gradually change over time, and you’ll see that while she is changing in some ways, in many ways she is still the same person you’ve always known, just

in a different package. You'll see that she will be more relaxed and more sociable, and you will realize this isn't anything for you to be afraid of."

"Maybe, but it's still really weird," says a large balding man in the back of the room. "Can't management just tell him to stop it?"

"Not any more successfully than if they told you to stop going bald," I replied.

"Oh," he said. "You mean this is real? It's like a real thing?"

"Yes, it's real. It's not a joke; it's not something she's doing to provoke you. It's not about you, or sexuality, or trying to be something she isn't. She's being herself, after decades of pretending to be the person you thought you knew. This stuff isn't easy, and it isn't something you just wake up one day and decide to do. It's hard. It's difficult, complicated. No joy ride. She can use your support. You know how much of your life is taken up by your work. It's important that she's able to do that work, to come here five days a week and continue to rely on your good will. Maybe some of you will want to hold back a bit, watch for a while, see how she changes. I'm not saying you have to go out of your way to talk to her, unless that was something you would have done before this change. What I'm going to ask you all to do is to not be mean to her. It's that simple. Now, are there any more questions?"

Two months later, I received a phone call from the factory's human resources manager. She wanted to let me know that everything was so much better after the training. Not the first day or so, when everyone was still processing what they'd heard, what they'd felt. But things were pretty quiet. Then the energy shifted, people began to relax, and they were all speaking to each other again, and including their transitioning colleague, just as they had in the past.

Demystify trans-ness, provide information, let people ask questions, help them understand. Ideally, though, managers might want to do this before there is a target, before an employee puts you on the defensive and you're scrambling to figure out what to do.

You don't know where you've seen trans people, but we are everywhere. Some people actually think the only thing trans people are good for is to become sex workers. And, yes, some of us do sex work, sometimes for survival, sometimes for fun, sometimes because it's easy money (maybe, for some...). But stereotypes are so constraining! I know trans people who are police officers, firefighters, attorneys, judges, politicians, physicians, surgeons, psychiatrists, psychologists, clinical social workers, teachers, architects, engineers, cosmeticians, corporate executives, managers, administrative assistants, electrolysisists, artists, writers, retail cashiers, waiters, chefs, construction workers, farmers, dancers, mechanics, you name it, we're working there, somewhere, somehow. A lot of us are self-employed, that's true, too. A lot of us find ourselves forced out of our jobs. We stop getting challenging assignments, we lose promotions, get sidelined. We become bored, frustrated, angry, depressed, despondent; even suicidal. But most of us are pretty resilient. Something else will turn up. We'll be okay if we have friends, people who love us and encourage us. We're just like anyone else.

Trans people who are "stealth", who don't reveal their trans status except to a few trusted individuals, are completely entitled to choose that path. In fact, from a civil and human rights point of view, society should not single us out, we should not be shamed, objectified, ridiculed. Being a trans person should not be such a big deal. One day, if we keep talking about it, if we continue the education, perhaps it won't be an issue anymore, and everyone will be able to be themselves. But at this cultural moment, we are not there yet, and trans people who are stealth do sometimes feel cut off from the only people who share their experience. They may have deeply conflicted feelings about being "out" or "remaining

invisible,” undistinguished from the crowd, while trans actors and actresses, models, musicians, and writers, and entrepreneurs are taking the stages of the world, being written up in magazines and newspapers, blogging on Huffington Post, publishing their autobiographies. It can be very painful to feel as though one is being left behind, when one KNOWS that one’s struggle was just as challenging as theirs, maybe more so. I think these tensions are typical of the growing pains that occur when individuals come to terms with who they are, which is something that can happen to anyone multiple times.

Even before acknowledging a transgender identity or beginning transition, some trans people may choose to work in fields that permit them to dress comfortably and present themselves in an androgynous way. Or they may prefer occupations that have rigid dress requirements or uniforms, so that they don’t have to worry about what to wear, or about standing out from the crowd. Some are very successful in a field that they would not have chosen if they were a member of another sex, and if they do transition they may end up changing their working life dramatically, which may be a move up or down the ladder of monetary success. Anyone, trans or not, can have similar occupational trajectories, for all kinds of reasons, but with trans people, it seems with every problem, every upheaval, every derailment, every difficulty they encounter, their trans-ness is to blame. From an outsider’s point of view, the benefits of acknowledging one’s trans-ness are obscured by the sheer unimaginability of undertaking such a project, one that inescapably touches every aspect of one’s life, present, past, and future.

This changeability, this possible redirection is one that can worry some managers, who may be reluctant to be supportive of a workplace transition, creating policies, disrupting the whole staff’s peace of mind for one person’s personal process, paying for training, negotiating new healthcare benefit plans, ordering new materials for everything that bears the employee’s name, so that all documents, name plates, security badge, and business cards are consistent. Payroll records may have to remain the same for Social Security, until the employee makes the effort to get a legal name change, obtaining a court order that compels the Social Security office to modify their records. Official requirements for legal name and gender change are established at the state level, so the best way to get some guidance is to contact one of the national advocacy groups appearing in the Resource list at the end of this chapter (you may find what you need posted on their web sites, or you may have to write or phone). Of course, if you don’t plan on changing your name, the whole process is that much easier, because gender shows up in far fewer places than your name does. It isn’t on your Social Security card, but it is in their records, so you may, eventually, want to request that change. The National Center for Transgender Equality (NCTE) has the information you need for federal document changes, such as Social Security, US passport, and military discharge papers.

More and more these days, people ask what they can do to help their co-workers through their workplace transition. Here are some suggestions to point in the right direction: Don’t avoid your co-worker. Don’t over-emphasize the transition, but don’t ignore it, either. Remain engaged in your work, and acknowledge your transgender co-worker’s contributions, just as you would do for any other staff member. Always show respect for others, promote understanding and remove barriers to productivity. Respect everyone’s personal privacy and confidentiality. Maintain professional regard for and engage with others in the workplace. Acknowledge and leverage differences that strengthen your team; recognize the accomplishments of everyone on the team, and the talent, skill, and knowledge that each

person brings to your work in support of your products and customers. Recognize the difference, if there are any, between your personal values and the community values of your workplace, and strive to maintain the integrity of each.

Help co-workers who are having trouble with another employee's transition; don't unintentionally collude with prejudice or bigotry by agreeing with them just to avoid a potentially unpleasant discussion. Interrupt any expressions of disgust, ridicule, or criticism of your transgender co-worker, and (in your own words) tell the speaker it doesn't help anyone for them to speak that way about a co-worker, and you'd rather not participate in discussions of that nature. And finally, be aware that your transgender co-worker(s) may not know everything about transgender issues and may prefer not to be asked about either their own personal experience or about the transgender community at large. Become knowledgeable about transgender and other protected classes of employee characteristics on your own; seek advice from your human resources department or a qualified professional.

CONCLUSION

Transgender people can have meaningful work, successful careers, professional growth, and yet all too often the ignorance, fear, and bigotry in society will attempt to destroy (figuratively, and sometimes literally) someone who is perceived as unacceptably different. Education is the key to overcoming prejudice, and employers must be encouraged to establish and enforce policies that forbid harassment in the workplace, and provide employee training that effectively supports diversity and inclusion at all levels of their organization. Management must unambiguously demonstrate through their statements and behaviors that diversity is valued, and that transgender employees--like all employees—are not to be shunned, ridiculed, or undermined. Treating all employees equally and respectfully garners more loyalty and higher performance, and makes a positive difference to the enterprise's bottom line.

Work is a fundamental part of human existence. Work is everywhere. As trans people become more visible in society, and are better understood and incorporated into various social institutions, like workplaces, we can contribute our creativity, resilience, dedication, ingenuity, and our integrity to the world's talent pool.

LEARNING POINTS

- Job or career opportunities may be difficult for some trans people to locate or retain.
- Trans people will usually be more successful in their work if they learn effective social skills that help them (both) become valuable team members, and become capable of expressing their integrity in ways that don't alienate others.
- The value of diversity is that embracing it strengthens our own ability to be adaptable and useful; and, in a group, diversity expands the available skillsets for problem-solving.

- Managers can save time and money if they are proactive about providing competent trans-inclusive diversity training for ALL employees, before they are in a crisis over suddenly having a trans person in their midst, and they “don’t know what to do.”
- Trans workers should avoid being trainers in the organizations in which they work.
- Don’t ignore your co-workers, even if you are, or someone else is, transitioning. Be respectful of other; promote understanding, and remove barriers to productivity.
- Respect everyone’s personal privacy and confidentiality.
- Demystify trans-ness: Educate, educate, educate.

FURTHER READING

Bender-Baird, K. (2011). *Transgender Employment Experiences: gendered perceptions and the law*. New York: SUNY Press.

Weiss, J. T. (2007). *Transgender Workplace Diversity: Policy Tools, Training Issues, and Communication Strategies for HR and Legal Professionals*. Self-published.

FURTHER RESOURCES

US

Human Rights Campaign, Workplace Project, Washington, D. C.; www.hrc.org.

Lambda Legal, Transgender Rights Project, New York, NY; www.lambdalegal.org.

National Center for Lesbian Rights, San Francisco, CA; www.nclrights.org.

National Center for Transgender Equality (NCTE), Washington, D. C.; www.transequality.org.

Out & Equal Workplace Advocates (O&E), San Francisco, CA; www.outandequal.org.

Transgender Law Center (TLC), Oakland, CA; www.transgenderlawcenter.org.

Transgender Legal Defense and Education Fund, New York, NY; www.tldef.org.

UK

Gendered Intelligence, for youth and families, London; www.genderedintelligence.co.uk/.

Press for Change, a web-based organization, UK; www.pfc.org.uk.

Canada

Benefits Canada; How to Support Transgender Employees (2015);

<http://www.benefitscanada.com/news/how-to-support-transgender-employees-72318>.

Canadian Centre for Diversity and Inclusion, Toronto, Ontario; www.ccdi.ca.

Australia

Pride In Diversity, Surry Hills, NSW; www.prideindiversity.com.au.

The Gender Centre, Inc., Sydney, NSW; <https://gendercentre.org.au/services/education-training>.

Chapter 26

EMPLOYMENT ISSUES FOR TRANSGENDER AND GENDER VARIANT PEOPLE: A LEGAL PERSPECTIVE

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OVERVIEW

This chapter describes the recent development of laws protecting trans people against discrimination in Europe, and specifically focuses on legislation relating to employment issues for trans people in the United Kingdom. The Equality Act, which came into force in 2010 in the United Kingdom and provides protection from unlawful discrimination or harassment for everyone, including anyone belonging to a protected group such as trans people, is discussed as it relates to trans people.

INTRODUCTION

Recent years have seen a significant increase in the public presence of transsexual and transgender (trans) people in the workplace, in many parts of the world. Their colleagues are often surprised to discover that they are mostly much more ordinary people than those seen in many of the limited representations portrayed in the media in the past. Having said that, even the media is finally coming round to presenting a more realistic and nuanced presentation of trans lives.

Prior to the 2000s, trans people in the United Kingdom (UK) had little substantive protection from discrimination. In 1997, UK television's most popular soap, *Coronation Street*, showed workers harassing and bullying a transsexual woman out of her, fictional, job in a clothing factory, after they found out her past 'transsexual' history. Two years later, the 'wedding that never happened' for that same, most ordinary of transsexual women, *Coronation Street*'s café manager, Hayley Cropper (played by the non-trans actor Julie Hesmondhalgh), was a small but extremely significant part of the campaign that was to create a major social change in British life. As the public's previously complex attitude to the 'perverts who had sex changes' softened to the representation they saw on *Coronation Street*,

it was merely the small beginnings of what were to become huge changes. They were all meeting increasing numbers of trans activists, ordinary trans people, who took part in the campaign of the pressure group Press For Change (PFC). These were the trans people who were deciding, finally, that they had done nothing to be ashamed of, and they had a right to stay, not just in their towns, but also in their jobs, whilst they progressed through their gender reassignment treatments.

Europe's trans people had formally obtained workplace protection in a decision of the Court of Justice of the European Union, in one of the first employment cases brought with the support of Press For Change (*P v. S and Cornwall County Council* [1996] Court of Justice of the European Union, Case C-13/94, IRLR 347). The Court had held that the use of gender rather than sex in the Equal Treatment (Gender) Directive was inclusive of those people who changed their gender, as well as those whose gender remained that attributed to them at birth.

However, there was not a will in government to support the decision in *P v S*. Just a few months before the public was to watch Coronation Street and discover that a trans woman, like Hayley Cropper, could not legally marry the man she loved, and who loved her, the UK Government held a consultation in which they proposed restricting the rights given by the decision of the Court of Justice. The consultation suggested that trans people would be barred from work with children, or where a person might be in a state of undress. At the stroke of a pen they were proposing the dismissal of youth workers, teachers, nursery staff, nurses, doctors and care workers.

The final straw, however, was the proposal that trans people would only be allowed to use the toilet of their preferred gender role, once a senior manager had determined they looked 'reasonable'. In less than the three weeks given to them to respond to the proposal, Press For Change managed to get over 800 individual letters written, not just by trans people, but also their families, their friends and, in some cases, their employers. The demand for employment rights for trans people reached government, well and truly, as it not only hit the desk of the responsible Minister in the Department of Work and Pensions, but also hundreds of constituency MPs and the Prime Minister. Employment protection, like trans people fighting back, would not be easily put back into the closet

THE TRANS EXPERIENCE OF THE BRITISH WORKPLACE

Twenty years of campaigning for 'Respect and Equality for All Trans People' by Press For Change was to culminate in 2010, when transgender and transsexual people were fully included as a group receiving protection from discrimination and harassment in the Equality Act 2010. The Act significantly clarified and expanded the protection afforded to trans people, and yet, despite that, recent research has demonstrated how many UK workplaces have not kept pace with the legal obligations now owed to their trans employees (Alexandra-Beauregard et al., 2016). A recent review of the annual reports of FTSE 100 firms, by the LGBT network OUTstanding, showed that trans people are not mentioned in the diversity policies of most these top UK firms; less than 20% of them had a trans-inclusive non-discrimination policy (Bentley, 2015). The results were neither surprising, nor unexpected by the researchers.

In a 1992 survey of 122 transsexual and transgender (trans) people, 35% were unemployed, with 43% claiming to have been forced to leave their employment after transitioning to live permanently in their preferred gender role. Eight years later, in a 2000 survey with 208 trans respondents, only 9% were unemployed (the national rate was just five percent) and a further 8% were economically inactive, having a diagnosis of permanent disability. By then, protection from discrimination in employment on the grounds of gender reassignment had technically been in law for four years, since the decision in *P v S*. However, it was clear that it did not exist in practice, as still 16% of the respondents claimed they had been forced to leave their job (Whittle, 2002).

In 2007, after ten years of supposed legal protection at work, a survey of more than 800 trans people in the UK was to find that, after transition, 22% of respondents were required to use the toilets of their former gender role, or the disabled toilet, at work. Of the rest, almost all had had inappropriate comments made to them when using the toilet, and one third had received verbal abuse. Furthermore, at least 10% of those who transitioned whilst working, had been physically or verbally assaulted, such that, if they had made a complaint, a trial of the perpetrators could have resulted in a criminal conviction. Sadly, none of the respondents had felt able to report the matter to the police. Only a very few had even spoken to their line manager (Whittle et al., 2007).

Twenty-five years after the 1992 survey, despite European Union and UK law now affording the most extensive workplace protection to trans people, they continue to experience workplace prejudice, discrimination and harassment. In 2011, the UK Government Equality Office's Transgender Action Plan states that 88% of trans employees still experience discrimination or harassment in the workplace (Government Equalities Office, 2011). In 2015, the Women's and Equalities Committee of the House of Commons (HofC) said:

“Evidence, and legal opinion, that we received indicate that the protections are not universally seen as legally complete and many trans people still face discrimination in employment and in other aspects of their lives” (HoC Women and Equalities Committee, 2016).

THE VALUE OF WORK TO TRANS PEOPLE

Legal studies continue to focus on the trans persons' right to birth certificate change, their right to marry and the medico-legal issues of treatment and surgery. They are rarely concerned with employment rights protection for trans people, despite employment being probably the most important 'quality of life' issue for most adults (Alexandra-Beauregard et al., 2016).

A job, or lack of one, is of primary concern to most of us. Without a job, our place and status in our community is tenuous. Invariably, we are known by our job. As we meet new people, the first thing asked is '... and what do you do'. Many of us form our primary adult social contacts in the workplace and the financial rewards of our jobs allow us to enjoy those social contacts to the full. Our incomes also ensure our access to the consumer goods and services that, in their own turn, provide more jobs for others. Inevitably, it is by having paid employment that we are fully able to participate in our society (Little et al., 2002). A job becomes even more essential for members of the trans community if they wish to receive

genderconfirming treatments, including surgery(ies). Many clinicians still consider it key to a successful social transition for a trans person to be engaged in either full-time employment, full-time volunteer work, or full-time higher education. Many doctors have despaired when their best efforts at improving a trans patient's life quality are confounded by the prejudices of others in the field of employment. Paid employment also provides the financial resources that allow a person's access to treatments and surgery which continue to be difficult to access in a timely manner in many health services in the UK, as well as around the world. There are also those elements of physical body modification, such as hair removal, which continue to require self-funding in many countries including the UK (Whittle, 2008).

In reality, many employers have moved considerable distances in the years since the Court of Justice of the European Union decision in *P v S*. However, for many trans people, obtaining employment and retaining it continues to be difficult. Gaining advancement is nigh on impossible. Many talk about the glass ceiling faced by women in the workplace; for most trans people in work, the ceiling is reinforced concrete.

THE EQUALITY ACT 2010 AND TRANS PEOPLE

The Equality Act 2010 in the UK provides a general 'protection from unlawful discrimination or harassment or' for anyone falling into, or perceived to be in, a protected group. One of these groups is people with the protected characteristic of gender reassignment (the Equality Act, s.7). The Equality Act outlines the characteristic as belonging to those people,

"proposing to undergo, ... undergoing or has undergone a process (or part of a process) for the purpose of reassigning the person's sex by changing physiological or other attributes of sex" (The Equality Act 2010 s.7(1)).

A criticism of the Act is that s.7 is couched in outdated language (House of Commons Women and Equalities Committee, 2016). Gender reassignment is not, of itself, defined by the Act other than through the words of section 7(1) and section 7(2) which states that,

"a transsexual person is ... a person who has the protected characteristic of gender reassignment" (The Equality Act 2010 s.7(2)).

The term 'Transsexual' originated as a medical concept and is nowadays used only to refer to those trans people who wish to undergo, or who are undergoing, or who have undergone, gender reassignment treatments, including surgical procedures to alter their body so it more closely resembles the body of someone born into the opposite sex group. Yet, the Guidance to the Equality Act 2010 indicates that transsexual people undergoing medical gender reassignment are not the only trans people provided protection by the Act. The explanatory notes to the Act, clarify that the Act "*no longer requir(es) a person who falls under section 7, to be under medical supervision*" (The Equality Act 2010 Explanatory Notes, Commentary on Sections: Pt 2, Ch. 1, S.7, para 43). Consequently, "*gender reassignment is now a personal, social, and sometimes medical process*" (The Highland Council Members' Equalities Working Group, 2011). Despite that, in the examples given in the Guidance, the

people protected by s.7 are all people who, at least, intend to change to living in the gender role opposite to that assigned at birth.

THE EQUALITY ACT 2010 AND NON-BINARY OR NON-GENDERED PEOPLE

People who do not experience their personal gender identity as being either both genders (referred to as non-binary trans people) or neither one of the two genders (non-gendered people), currently feel uncertain about whether the Equality Act would protect them from discrimination. Many non-binary people do transition to living apparently as a person of the gender opposite to that ascribed to them at birth. Non-gendered people usually develop a much more uncertain presentation of identity, which, to the outside observer, is often seen as androgynous. This, particularly, makes gaining employment a virtual impossibility (Elan-Cane, 2015, Response to q.182). Non-binary and non-gendered people argue that they are unable to ‘come out’ in the workplace, as doing so would disadvantage them by removing their protection from discrimination. Consequently, society gets a distorted perception of how many people feel their gender identity is one of having parts of ‘both a man and a woman’, or of being neither. Non-binary and non-gendered people argue that the wording of both the Act and the Guidance to the Act is too vague. The language is undoubtedly outdated, and, as the HofC Women’s and Equality Committee put it,

“there is a consequent, apparently widespread, misapprehension that the Act only provides protection to those trans people whose transition involves medical “gender-reassignment” treatment”. Likewise, “transsexual”, being primarily a medical categorisation, can be seen as referring specifically to someone who intends to undergo, is undergoing, or has undergone, such a medical intervention (HofC Women’s and Equality Committee, 2016, 24 para 93).

During the Inquiry of the Women’s and Equality Committee, the Minister, Caroline Dinenage from the Ministry of Justice, clarified that a previous, rather blunt departmental response to an online petition by non-binary people, had meant to say that,

“there is no specific detriment experienced by people who identify as non-binary *that is not already covered by existing legislation*” (HofC Women’s and Equality Committee, 2016, 25 para 99).

She went on to say that non-binary and non-gendered people, not directly covered under s.7, may be covered under the ‘discrimination-by-perception’ provisions (see under Perception below) contained within s.13 of the Act 2010. Alternatively, she went on, they may have protection from discrimination within other areas of employment law (presumably unfair dismissal), Human Rights Law, or Hate Crime Law (HofC Women’s and Equality Committee, 2016, 25 para 100). However, without further exposition, what is meant in law by the phrases ‘non-binary’ or ‘non-gendered’ is not at all clear.

The HofC Women’s and Equality Committee agreed with the suggestions made by Press for Change during the consultation period for the Equality Act 2010, that use of,

“the terms “gender reassignment” and “transsexual” in the Act are outdated and misleading; and may not cover wider members of the trans community. The protected characteristic should be amended to that of “gender identity”.”

THE WORKPLACE, GENDER ROLES, AND DRESS CODES

Despite guidance clarifying that gender reassignment is now a social process, and ‘only sometimes’ a medical process, the examples given in the Guidance imply a person will, at least, intend to transition to living in the gender role opposite to that ascribed at birth (the Equality Act 2010 Explanatory Notes, Commentary on Sections: Pt 2, Ch. 1, S.7, para.43). The question as to whether that is the minimal limit, however, has not been tested in court. This leaves a big question mark. Will the Act protect a person who manifestly is not changing to living in the ‘opposite’ gender role? What if a man goes to work wearing a dress, but is still being a man, i.e., a person merely wishing to adopt aspects of manner or dress that are clearly associated in the minds of most gender normative people as belonging to a person of the opposite sex. Normative rules regarding dress are still extremely common, particularly in the workplace. They can range from the:

“explicit and formal dress codes that are written and detailed and often included in employee handbooks to implicit, often unwritten, norms that are sometimes mentioned at recruitment and selection stages and overseen by line managers” (Nath, 2016).

The Employment Appeal Tribunal has held that it was not discrimination when an employer refused a bisexual male transvestite, who was not seeking gender reassignment treatments, permission to wear female clothing in work. The applicant claimed that he wore the female clothing to express the innate feminine aspects of his personality and, anyway, he did not meet the business’s clients, customers or the public when working. It was held that an employer can reasonably determine what is appropriate dress in a “business-like organisation”, so as to avoid having the business brought into disrepute (*Kara v. Hackney Council* [1995] EAT, case 325/95). The applicant attempted to have his case heard at the European Court of Human Rights, but his case was declared inadmissible, as,

“the rules as to the mode of dress at work affected the applicant during work hours on work premises and ... at other times he remained at liberty to dress as he wished” (*Kara v the United Kingdom*, Commission of the European Convention on Human Rights [1997] application no: 36528/97).

Twenty years later, after many trans-positive decisions of the Court of Human Rights, one does wonder whether the Court would now decide differently. Connolly (2011) has argued that, before dress codes can be challenged on the grounds of sex or gender discrimination (rather than gender reassignment discrimination), they must place more of a burden upon people of that sex. As a rule, the English courts take an ‘in the round’ view of workplace dress codes; restrictions on clothing appearance do not have to be identical for both sexes so long as they are “*imposed to an equal degree*” (Smith and Baker, 2013). On the direct question, of cross-dressing, that is wearing clothing associated with members of the

opposite sex, ACAS¹ guidance is that, whilst Employer's Dress codes, which can include normative practice, must apply to both men and women equally, they may have different requirements (Nath, 2016). This is clearly problematic. Who gets to decide whether dress code requirements are equally burdensome? In workplaces traditionally divided between the sexes, such as the motor industry, how can we compare a requirement of the men who are mechanics to wear steel-capped safety boots, with a requirement of women who are receptionists to wear high heels? The first is for safety reasons; the second is for ...? Restrictive dress codes, and the failure to recognise non-gendered and non binary people are all part of the same malaise. Current law continues to allow internal policies to promote normative gender stereotyping throughout many employment sectors. A principle of law is that it should be clear and able to be understood by ordinary people.

Furthermore, austerity policies have resulted in cuts to free legal advice services and also resulted in the introduction of fees for employment tribunals; a clear problem for a person who may have just lost their income. As reported by Parliament's Women and Equalities Committee

"The Equality Act 2010 was intentionally drafted in a way which relies on test cases being brought to build up a body of antidiscrimination case law. Far fewer of these cases are being brought, however, following the introduction of employment tribunal fees in 2013. We heard that reductions in funding for the Equalities and Human Rights Commission have also had an impact, reducing the opportunities for individuals, often in insecure employment, to obtain support when bringing such a claim. This drop in employment tribunal claims poses an obvious threat to the effectiveness of antidiscrimination law" (HofC Women's and Equality Committee, 2017, para.19).

Access to justice is essential for the Equality Act 2010 to work effectively, but the law does need clarification in this area. Individuals should not have to engage in taking test cases to the Courts to clarify what their legal position is under law, when they are simply trying to get dressed for work.

EMPLOYER'S OBLIGATIONS UNDER THE EQUALITY ACT 2010

It is the duty of all employers to ensure non-discrimination in all workplace practices, so as to protect trans employees, or other trans workers (including volunteers) from unlawful discrimination, which is to their detriment. The provisions of the Equality Act 2010 state an employer's obligations, not just to an individual trans employee, but to any and all trans people, including sub-contractors, service users, clients and customers. Employers must ensure that all of their employees are aware of the employer's obligations under the Act. They must provide training so that their workforce is able to ensure that trans people who are fellow employees, contractors, or customers, clients, or service users of the employers, are treated in accordance with the law.

An employer's obligations to an individual trans employee arises at the point when a person informs their employer that:

¹ ACAS stands for the Advisory, Conciliation and Arbitration Service. It is a publicly funded, independent organisation in the UK, which aims to promote better employment relations.

- They are intending to undergo, or
- They are undergoing, or
- They have undergone gender reassignment.

THE EQUALITY ACT 2010: DEFINED TYPES OF DISCRIMINATION

Section 13, Direct Discrimination

A person (A) discriminates against another (B) if, because of a protected characteristic, A treats B less favourably than A treats, or would treat, others (Equality Act, Part 1, s.13.1). Direct discrimination occurs when a person is treated differently, to their detriment, as compared to others. The Act affords protection from direct discrimination that takes place because a person is trans. For example,

- Refusing to consider appointing a person to a post,
- Refusing to consider promoting a person,
- Always giving a person the worst work,
- Always giving the person fewer working hours, or a lower rate of pay solely because they are trans, is unlawful discrimination. Though the Act is quite clear on this, a problem arises where an Employer's industry has a very high 'wealth base', and continues to discriminate, because they do not care that they may have to pay compensation. The levels of compensation for discrimination are too low, being restricted to (money lost) plus (£5000 or less) for hurt feelings. The occasional large pay-out trumpeted by the tabloid press only exists when a victim experiences additional damage, such as developing a consequent, serious, long term, psychiatric illness.

Association

The phrase in s.13; "because of a protected characteristic" extends the direct discrimination protection to include any situation when a person (trans or not) is treated unfavourably because they are in some way associated with a trans person. It might be that they are a friend, a relative, or simply a co-worker, customer or service user who has objected to other staff speaking badly about a trans person.

Perception

Similarly, s.13 affords protection to a person who is not trans, but who is perceived as being trans, and consequently experiences prejudice and discrimination. This is often seen as how cross-dressers, non-binary, non-gendered or some people with intersex conditions can bring a claim for discrimination. But it will not be of any help if the discriminator can assert

they know that the victim is a person not intending to undergo, nor undergoing, nor having undergone gender reassignment.

Section 19, Indirect Discrimination

The Equality Act 2010 s.19 provides protection to trans people from indirect discrimination. Indirect discrimination means:

- Putting in place a rule, or policy, or a way of doing things, that has
 - A detrimental impact on someone who is trans, or
 - Makes it more difficult for a trans person to seek or continue their employment,

when this cannot be objectively justified.

Historically, the classic indirect discrimination rule was requiring police officers to be a certain height. Not only did it prevent many women from becoming police officers, but because of the height differentials between the ‘sexes’ in the past, trans men would almost certainly have been unable to become police officers. Fortunately, that rule no longer exists, and many trans men and women now work as police or fire officers. Examples of indirect discrimination that could disadvantage transgender women today would be workplace policies that say:

- Female staff cannot wear wigs, hats or scarves in the workplace.
- Female staff cannot wear makeup in the workplace.
- Staff are only able to take a maximum ten days of sick leave per year, including in-hospital stays.

These policies would potentially be indirect discrimination, as they would clearly disadvantage trans women who may have to wear a wig or makeup to successfully look like a woman, and the last would disadvantage any trans person intending to undergo gender reassignment surgery(ies).

Employers have tried to show that there is an objective need for these policies, e.g., in the case of makeup, it was not allowed in a workplace because of the risk of contamination in a sterile laboratory setting. However, the law does not allow a defence of legitimate need against direct or indirect discrimination; rather it requires the employer to adapt to the needs of the trans employees. For example, in sterile setting or clean rooms, the employer should have given consideration to allowing the trans person to work in another part of the business.

Section 26, Harassment

The Equality Act 2010, s.26 affords protection from harassment across the protected categories, and employers and businesses have an obligation to protect their workers, customers, clients, and service users from harassment by their staff. Harassment includes any unwanted conduct related to a person’s status which has:

- The purpose or effect of violating their dignity, or
- Creating a hostile, degrading, humiliating or offensive environment.
- For trans people, this includes:

- Allowing repeated, albeit petty, derogatory remarks, about ‘sex changes’,
- Failing to call a trans person by their preferred name,
- Failing to use the correct gender pronouns for a trans person,
- Putting news articles, posters/pictures or similar which ‘joke’ about trans people, on a notice board,
- Making sexual comments about a trans person. This would include failing to stop fellow staff, customers, clients, or service users asking a trans people about their surgery and/or their genitals. This conduct is clearly not acceptable and, if it takes place more than once, it could amount to harassment.

In *Chessington World of Adventures Ltd v Reed* [1997] EAT, IRLR 556 placing a small coffin, and used tampons, on the work bench of a trans woman amounted to unlawful harassment.

Section 27, Victimisation

The Equality Act s.27 protects trans people, and people associated with them, from victimisation in the workplace. Victimisation occurs:

- When a trans person is treated unfavourably because they have taken, or might take a ‘protected’ action (bring a complaint) under the Equality Act 2010, or
- When a person, who is associated with a trans person, is treated unfavourably because they are supporting a trans person who has taken, or might take a ‘protected’ action under the Act.

A ‘protected’ action under the Equality Act 2010 can be:

- Complaining about discrimination, harassment or victimisation, or
- Taking a claim to a Tribunal about discrimination, harassment or victimisation.

Section 16, Absences from Work due to Gender Reassignment

The Equality Act 2010 s.16 protects a trans person from being treated differently because they are required to be absent from work for their gender reassignment treatments and surgeries. This also ensures that employers provide the time needed for treatments. This provision can be combined with other elements of Employment Law, such as direct discrimination, unfair dismissal or unfair redundancy. For example, many employers now ‘limit’ the time staff can take as sickness absence each year, and if they go over that time, they will be considered for dismissal due to ‘incapacity’. The Equality Act 2010 s.16 makes it quite clear that, if a person is being absent for gender reassignment treatments or surgeries, the use of a ‘time limit’, after which they will be deemed to not have the capacity to do their job, will be unlawful.

Section 60, Pre-Employment Medical Questionnaires or Assessments

In the past, people with disabilities, a medical history of mental illness, or other persistent health problems, and trans people, frequently found it difficult to obtain employment or

vocational training because of the use of pre-employment medicals or medical questionnaires. Employers used these tools to screen out job applicants.

Trans people would successfully pass the initial testing and interview stages to study medicine or teacher training, but, on attending for a medical assessment, would be refused a 'pass' because people like them were not welcome in professional jobs (and many non-professional jobs). Alternatively, if a trans person did not disclose their past or current gender reassignment treatment and, if at some later stage their medical history was discovered, they would be dismissed for not being truthful at the time of their application.

Section 60 of the Equality Act 2010 makes it generally unlawful for a job applicant to be asked questions about their health or disability before they are offered a job. An employer cannot refer an applicant to an occupational health practitioner, or ask an applicant to fill in a questionnaire provided by an occupational health practitioner, before a job offer is made. The UK's Commission for Equality and Human Rights has the power to take legal action against employers who persist in using pre-employment medical examinations or questionnaires. Individuals may bring a successful claim of discrimination if they are asked to take part in any form of medical assessment prior to being appointed to a position.

However, an employer can ask any job or training applicant about their health or disability, after the applicant has been offered a position. There are rules, though, about when and how this can be done. Firstly, when holding a bulk recruitment exercise, the restriction on questions about health or disability only applies up to the point where an applicant has been placed in a pool of successful applicants who are to be offered jobs as vacancies arise. In these circumstances, a trans person may have to make a claim for direct discrimination if the offer is then withdrawn. An employer would then need to successfully defend this by arguing, either that they were not appointing because of prior health conditions, or there was a legitimate need for health based restrictions. However, although not yet tested in court, an employer would then need to demonstrate a real, proportionate, and legitimate need for the medical questionnaire. Because they 'like to do it' would be insufficient.

If the employer is a public authority, i.e., an emanation of the state, a medical questionnaire or other requirement could contravene a trans person's right to privacy (see s.7.1. below) as regards their personal medical history (Goodwin and I v the UK Government [2002] ECHR, Apps Nos. 28957/95 and 25608/94). Clearly, the further in time they are away from, for example, a previous mental illness related to the stigma of being trans, or prior gender reassignment treatments, the more likely those medical details will be judged to be irrelevant to an employer's 'need to know'.

Medical questionnaires may be used positively. For example, an employer can use a questionnaire to determine whether applicants with disabilities require specific support to take part in a job application process. Employers can also use a medical evaluation process to determine whether a successful disabled candidate would benefit from being referred to an occupational health practitioner to explore whether and what reasonable adjustments may help them settle into the job and do well. This is lawful.

Finally, medical questionnaires may also be used pre-appointment, for example at interview, to investigate the integrity and reliability of an applicant, for example:

- Involvement in illegal activities;
- Unspent criminal convictions relevant to the role, particularly if not volunteered by the applicant and only revealed by other checks;

- False or unsubstantiated claims on the CV or application form;
- Unsubstantiated qualifications;
- Unexplained gaps in employment history;
- Adverse references;
- Questionable documentation, e.g., lack of supporting paperwork or concern that documents are not genuine; or
- Evasiveness or unwillingness to provide information on the part of the candidate.

In the UK, whilst pre-employment screening can be used only in a limited way, post-employment screening **MUST** be used to confirm an applicant's identity, nationality and immigration status to ensure they have the right to work in the UK. This can cause problems for immigrant trans people, whose passports do not reflect their personal history. They may need to contact the UK Immigration Advice service to obtain a separate 'permission to work in the UK' certificate.

THE PUBLIC SECTOR GENERAL EQUALITY DUTY

Public Sector Bodies (PSBs) are those organisations which are part of government, or of local authorities, or those bodies in receipt of state funding to perform an act of the state. The Public Sector General Equality duty contained within the Equality Act 2010 requires all Public Sector Bodies to give due regard to:

- *Eliminating unlawful discrimination, harassment and victimisation*, including towards trans people;
- *Advancing equality of opportunity* between different groups, including trans people;
- *Fostering good relations* between different groups, including trans people.
- They should do this by giving due regard to:
- *Removing or minimising disadvantages* suffered, that are connected to them being trans;
- *Taking steps to meet the needs* of trans people, which are different from the needs of persons who are not trans;
- *Encouraging trans persons to participate in public life*, or in any other activity in which participation by such persons is disproportionately low.

PUBLIC SECTOR EMPLOYERS AND THE HUMAN RIGHTS ACT 1998

There are further legal requirements placed upon all employers who are PSBs or who are doing the work of a Public Authority. These are legal obligations of the state and arise through the Human Rights Act 1998, which embodies the European Convention of Human Rights into UK law. Human Rights are individual rights that are held by virtue of residence in a state which is a signatory of the United Nations Declaration of Human Rights and the European Convention on Human Rights. Human Rights are rights that can be claimed against the state or any organisations that are an emanation of the state, which includes government

departments, local authorities, and other PSBs, including NHS health services, state funded schools, colleges and universities. PSBs must ensure that what they do, does not contravene the individual human rights of their employees. A broad description of the full range of human rights that each person resident in the UK, including children, has under the Human Rights Act 1998 and the European Convention, is referred to as the FREDA Principles. These require a person be treated,

- *Fairly*, with
- *Respect* and
- *Dignity* at all times, so as to afford effective
- *Equality*, whilst recognising their right to their
- *Autonomy* as to their personal development and identity.

The FREDA Principles inform our understanding of the obligations of PSBs under the Human Rights Act 1998, and are a useful tool in determining whether a PSB has contravened a person's human rights. However, trans people have also had specific rights, under the European Convention on Human Rights, upheld in cases before the European Court of Human Rights, notably a right of privacy for their past medical history, and their previous name and sex (*Goodwin and I v the UK Government* [2002] ECHR, Apps Nos. 28957/95 and 25608/94).

Section 22 of the Gender Recognition Act 2004 obliges employers to ensure that all trans people, who have obtained recognition of their preferred gender, are afforded privacy for all legal purposes. This means all records should be revisited, and retracted wherever they might disclose that an employee, who has a Gender Recognition Certificate, was previously of another name and (birth) sex.

LEARNING POINTS

- Europe's trans people had formally obtained workplace protection in a decision of the Court of Justice of the European Union in one of the first employment cases brought with the support of Press For Change (PFC – www.pfc.org.uk) in 1996.
- Employment protections for trans people in the UK were greatly enhanced with the introduction of the Equality Act 2010, but there are still significant problems experienced by many trans people.
- Bringing cases to court is not necessarily in the best interest of trans people, it is stressful, and related publicity could cause them even more harm.
- The courts have recognised the need to protect trans people from unwanted reporting of their personal details and, increasingly, when trans people do make their claims in the courts, they are being successful.
- The Equality Act 2010 has also facilitated the legal education of employers and, with negotiation, it is frequently possible to see the creation of new, trans friendly workplace policies, and the retention of a person's job.

- Keeping one's employment, even in the short term, will usually be of far more economic and social value to a trans person than the small amounts of compensation the courts make payable for discrimination or harassment.

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Chapter 27

PHYSICAL ACTIVITY AND SPORT ENGAGEMENT IN THE TRANSGENDER POPULATION

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OVERVIEW

This chapter provides an overview of the barriers and challenges that some transgender people experience when engaging in (or attempting to engage in) physical activity and sport. Throughout the chapter we will consider how socially and medically transitioning may interact with these barriers and affect physical activity and sport participation. The current policies regarding transgender people in competitive sport will also be discussed. We will then move on to exploring how physical activity and sport can be made more accessible and comfortable for transgender people.

INTRODUCTION

Physical activity is defined as any activity (e.g., while working, playing, carrying out household chores, travelling, and recreational pursuits) that involves muscular-skeletal movement and energy expenditure (World Health Organization, 2016). Sport is defined as any competitive physical activity or game. Sport can take place at a recreational level, primarily for enjoyment, socialisation and to maintain or increase fitness. Sport at elite level is usually associated with financial awards. The World Health Organization (2016) recommends, that adults aged 18-64 years should engage in moderate intensity aerobic physical activity for at least 150 minutes a week and in muscle strengthening activities on at least two days a week. Within cisgender populations, adequate levels of physical activity and sport participation have been found to improve quality of life. Physical activity and sport participation can help people manage negative emotions (e.g., De Mello et al., 2013; De Moor et al., 2006; Maltby & Day, 2001) as well as being effective in increasing self-esteem and

social connectedness (e.g., Armstrong & Oomen-Early, 2010; Schmalz et al., 2007). Physically activity and sport is therefore likely to contribute towards improving mental health and well-being in people with a diversity of gender expressions (e.g., transgender, non-binary).

However, studies investigating levels of physical activity among the transgender population when compared to cisgender people, have found the later to be a more active group. Transgender people have reported engaging in less aerobic, strength and flexibility related physical activity in comparison to cisgender people, even when age and gender have been taken into consideration (e.g., Jones, Haycraft, Brewin, Bouman & Arcelus, submitted; Muchicko et al., 2014). The low levels of physical activity and sport among the transgender population are not surprising considering they report several barriers to engagement, which will be next described.

THE CHALLENGES AND BARRIERS REPORTED BY TRANSGENDER PEOPLE WHEN BEING PHYSICALLY ACTIVE

A few qualitative studies have investigated how transgender people feel when participating in sport or physical activity (Elling-Machartzki, 2015; Hargie et al., 2015; Jones, Arcelus, Bouman & Haycraft, 2017). These studies found a total of eight barriers among this population, five of which can be described as external barriers (relating to the physical activity and sport environment), while the remaining barriers are experienced internally. The division between external and internal barriers is artificial as they are interconnected and one affects the other. For example, experiencing discrimination in a sport environment (external barrier) will cause a person to feel fearful of experiencing transphobia, which has been defined as an internal barrier.

External or Environmental Barriers to Sport and Physical Activity

Changing Facilities

One of the most commonly cited barriers to physical activity and sport participation are the changing facilities available in leisure centres and sports clubs (Elling-Machartzki, 2015; Hargie et al., 2015; Jones et al., 2017). Changing facilities are historically built around the binary gender system, in that people assigned male at birth use the male changing rooms and those assigned female at birth use the female ones. In most leisure centres or sports clubs only male or female facilities can be found. Changing facilities that are configured in this way can therefore be problematic for transgender people (especially before socially and medically transitioning. Moreover, most public changing spaces are open plan, and private cubicles (and showers) are usually limited or non-existent. As unhappiness and discomfort with the body is often core to the distress that transgender people experience (e.g., Jones, Haycraft, Murjan & Arcelus, 2016), it is not surprising that transgender people find changing rooms an uncomfortable environment (e.g., Elling-Machartzki, 2015; Hargie et al., 2015; Jones et al., 2017). Even those on cross-sex hormone treatment find such environments a real challenge, despite an increase in body satisfaction (Jones et al., 2017).

The Difficulties of Binding or Tucking While Exercising

Even if changing facilities are not problematic, some transgender people have reported feeling anxious about maintaining a clear gender presentation during physical activity and sport (Smith, Cuthbertson & Gale, 2012). For instance, some transgender males (pre-chest reconstructive surgery) ‘bind’ their chest, and some transgender females (pre-gender confirming genital surgery) ‘tuck’ their genitals. However, when engaging in physical activity, binding and tucking can prove problematic. Participants in a recent study spoke at length about the physical discomfort and performance impairment that binding and tucking can cause when engaging in physical activity and sport (Jones et al., 2017). However, without binding their chest or tucking their genitals they felt unable to mix with others in public spaces.

Sport-Specific Clothing

Related to the above issue, some transgender people have also reported the difficulties of wearing sport-specific clothing. Whilst some physical activities and sports typically involve wearing clothing that is gender neutral (e.g., football kit), there are some activities and sports where clothing is gender specific and/or very revealing (e.g., gymnastics, athletics, dance, swimming or aquatic activities). Although the majority of transgender people appear to avoid physical activities and sports that involve wearing revealing and heavily gendered clothing (e.g., aquatic activities), some transgender people adapt stereotypical sports clothing so they can continue to be physical active. For instance, when swimming, transgender males wear a t-shirt to cover their chest (and binder) and transgender females wear shorts to minimise the appearance of their genitals. Notwithstanding these adaptations, some transgender people will feel uncomfortable about having to adapt traditionally or stereotypically sportswear as they may feel this draws unwanted attention towards them (Jones et al., 2017).

Transphobia in Physical Activity and Sport

An important issue for many transgender people is the experience of transphobia within the sport environment. Transgender people have been victims of transphobia when engaging in physical activity and sport in public spaces (Ellis, McNeil & Bailey, 2014; Hargie et al., 2015). In 2012, a survey conducted in Scotland with 1,722 people (115 of whom identified as transgender) explored transphobia in sport. Of the transgender respondents, 75% of them felt there was a problem with transphobia in sport, 80% had personally experienced or witnessed transphobia in sport, 79% felt transphobia was a barrier to sport and 77% felt there was not enough being done to address transphobia in sport (Smith, Cuthbertson & Gale, 2012). It is therefore evident that more needs to be done to ensure physical activity and sport is safe and comfortable for transgender people.

Team Sport

In sport, the binary gender system appears to be hugely problematic for transgender people. Once gender confirming medical treatment has commenced (and in some cases before then) people feel uncomfortable about being part of a team that does not align with their gender identity (Elling-Machartzki, 2015). The reasons as to why transgender people do not continue to play in the sport they enjoyed prior to transitioning appears to differ according to gender identity. Transgender men have described how pre-transition they played sport (e.g.,

female football) but since transitioning they feel uncomfortable about playing in male teams until they have fully medically transitioned (including surgery). Transgender males have also spoken about the fact that they may not have the correct level of strength or skill to play on a male team while socially and medically transitioning (Jones et al., 2017). Many transgender males find the transgender policies adopted by sport organisations confusing which in turn can also deter this population from participating in sport.

Some transgender females believe that they have an athletic advantage in competitive sport and therefore choose not to continue with a sport they enjoyed prior to their social and medical transition. Within the literature, there are several instances of transgender women being excluded from competitive sport as they have been seen to have an athletic advantage by sporting organisations (over their cisgender competitors) (Cohen & Semerjian, 2008; Tagg, 2012; Travers & Deri, 2010). It is the commonly held belief among sport organisations, sport policy makers, competitors and spectators that transgender females (but not transgender males) have an athletic advantage due to high testosterone levels¹. There is limited research that has explored athletic advantage and hormone levels in the transgender population. The majority of research (although still limited) has been conducted with cisgender people and has not directly measured hormone levels in relation to athletic performance. The unsupported belief, that a transgender female has an athletic advantage, has informed several sport policies around the world, which have had devastating consequences for transgender people (e.g., transgender females have been excluded from competitive sport). However, it has been questioned as to whether testosterone is a good (or even the only) marker of athletic advantage. Karkazis et al. (2012) have argued that there is no evidence to suggest that endogenous (internal) testosterone levels are associated with athletic performance as there is variation in how bodies make and respond to this hormone. Testosterone is only one part of a person's physiology. There are other important factors (both biological and environmental) that should be considered if fairness (in the absence of advantage) is what we are striving for in competitive sport. For instance, having large hands is key for manipulation in some sports (e.g., basketball), but this is not seen as an unfair advantage. Whilst the safety of all competitors is paramount, it is important that transgender people have an equal opportunity (no matter what stage of transition they are at) to engage in sport. Sport organisations and policy makers need to be educated about the fact that testosterone may not be a marker of athletic performance to help dispel the myth surrounding athletic advantage in transgender competitors.

Competitive Sport Policy for Transgender People

The belief that transgender people (especially transgender females) have an athletic advantage has informed the development of several sport policies for transgender people in competitive sport all over the world. In 2004, the International Olympic Committee (IOC) published, for the first time, a policy for transgender competitors. The purpose of this policy was to promote the inclusion of transgender people in competitive sport. The policy stated that that transgender people who transition after puberty are permitted to compete in sport in line with their experienced gender identity providing they have undergone gender confirming surgery, can provide legal recognition of their gender, have been prescribed cross-sex

¹ Testosterone is a sex hormone present in both adult males (secreted primarily by the testes) and females (secreted primarily by the ovaries). Testosterone levels in adult males are greater than in adult females.

hormones for at least two years, and have lived in their experienced gender for the same amount of time (IOC, 2004). Several sport organisations have viewed this policy as the ‘gold standard’ and have therefore used the IOC (2004) policy to inform the development of their own policy (e.g., Amateur Swimming Association, 2015; Badminton England, 2013; USA Gymnastics, 2015; USA Track and Field, 2005). This is concerning considering the flaws that have been identified with the 2004 IOC policy for transgender competitors (Jones, Arcelus, Bouman & Haycraft, 2016). Firstly, the policy discriminates against transgender males as research has shown that transgender males do not hold an athletic advantage at any stage of their social or medical transition (Gooren & Bunck, 2004). Therefore transgender males should be able to compete without providing any information about their gender identity or transition. Secondly, there is a lack of rationale as to why transgender females must be treated with cross-sex hormones for at least two years and individual differences in blood hormone levels are not considered (Sullivan, 2011). Finally, there is also a lack of rationale for genderconfirming surgery as a requirement to compete (Carroll, 2014). Whether an athlete has a penis or vagina appears irrelevant as this will not change the physiology of the body (Lucas-Carr & Krane, 2011). Unsurprisingly, the stringent requirements that are placed on transgender people are thought to be core to the negative experiences that transgender people report in competitive sport (Jones et al., 2016).

Only a few months prior to the 2016 Rio Olympic Games in Brazil, the IOC amended their policy regarding transgender athletes. This policy is non-discriminatory against transgender males as they are permitted to compete in a male category without any genderconfirming medical treatment. Transgender females may compete in a female category if they have declared their gender as female for at least four years and their blood testosterone levels are below a normative male level for at least 12 months prior to competition. However, the latter requirement is a general guideline, and each case will be reviewed individually to determine whether 12 months is a sufficient amount of time or not to suppress testosterone levels to an appropriate level. Transgender females, like transgender males, do not have to have undergone genderconfirming medical treatment. If transgender females do not meet these requirements, they have to compete in a male category. This seems highly inappropriate. Although this updated IOC policy still has flaws (e.g., cross-sex hormones as a requirement of transgender females) and is primarily still focussed on testosterone levels, which have not been shown to be a consistent measure of athletic ability, it is by many seen as an improvement for transgender inclusion in competitive sport.

Individual or Internal Barriers to Physical Activity and Sport

Gender Incongruence

Some transgender people have discussed the issue of ‘passing’ as their felt gender identity when deciding whether to get involved in sport or structured physical activity. It is likely that many transgender people avoid physical activity and sport as they feel they do not ‘pass’ well enough as their felt gender identity. Many transgender people worry that others may query their gender, discriminate against or abuse them because of their perceived lack of gender congruence (Jones et al., 2017).

Discomfort with the Body

Many transgender people, but not all, wish to undergo genderconfirming medical treatments in order to relieve the severe gender dysphoria they experience (Coleman et al., 2012; Wylie et al., 2014). Therefore when socially and medically transitioning, for many transgender people this dysphoria can be the main barrier to their participation in physical activity and sport. Some transgender people also feel that engaging in physical activity or sport may increase their dysphoria as such activities can make them more aware of their body (e.g., awareness about their chest when running or jumping). Whilst discomfort with the body is a significant barrier to being physically active for some transgender people, it may only be a temporary barrier as Elling-Machartzki (2015) found that post-genderconfirming surgery, transgender people reported engaging in more physical activity and sport due to an increase in body satisfaction (Elling-Machartzki, 2015). However, surgical scarring (e.g., after chest reconstructive surgery) may also leave some transgender people feeling conscious of their bodies when using changing rooms, or engaging in physical activities and sports where the body is more visible (e.g., swimming) (Smith, Cuthbertson & Gale, 2012).

Anxiety About Negative Evaluation and Transphobia

Some transgender people have reported feeling anxious about using changing facilities that align with their experienced gender as they fear that their gender identity may be challenged by others (Smith, Cuthbertson & Gale, 2012). Some transgender people fear that this may even extend to overt violence and discrimination from cisgender people when using changing facilities (Jones et al., 2017). Transgender people have also reported avoiding team sports as they anticipate not feeling comfortable or accepted on either a male or female team during their social and medical transition (Caudwell, 2012). However, some researchers have found that this unaccepting behaviour from others is anticipated, as opposed to experienced (Hargie et al., 2015; Jones et al., 2017). Many transgender people appear to be fearful and anxious of non-acceptance by others, when this may not always be the case, especially as the visibility and acceptance of transgender people appears to be increasing significantly within Western society (Bouman, de Vries & T'Sjoen, 2016).

HOW PHYSICAL ACTIVITY AND SPORT CAN BE MADE MORE ACCESSIBLE TO TRANSGENDER PEOPLE

There appears to be a complex interplay between some of the external (or environmental) and internal factors described above. Given the established benefits physical activity can have on mental and physical well-being (e.g., De Moor et al., 2006; Maltby & Day, 2001), these barriers are a significant limitation to the promotion of healthy behaviours in transgender individuals. In this next section, we will consider how physical activity and sport can be made more inclusive and accessible for transgender people.

Changing Facilities

Inclusive changing facilities for transgender people need to be developed in leisure centres and sport clubs. To be inclusive, changing facilities would need to move away from the binary gender system, and instead be gender neutral with separate cubicles for showering and changing. For these facilities to be built, there also needs to be an understanding among facility managers as to why these changes are necessary and beneficial to transgender people. To achieve this, an increase in education and information provision, that raises awareness of transgender people and the challenges they face when engaging in physical activity and sport, would be advisable. Single and private cubicles are not only helpful for transgender people, but also for people with other gender identities and/or those requiring privacy when changing and showering. Such facilities already exist in some places, particularly those where the income of tourist is vital, such as the famous baths and spas in Budapest, Hungary where single cubicles, not divided by gender, are available as well as binary gendered changing rooms.

Sport-Related Clothing

Sports clothing brands should consider developing gender neutral, and less revealing sportswear. This would be especially beneficial for sports such as swimming, gymnastics, dance, athletics and cycling. Less revealing sport clothing would also be welcomed by many cisgender athletes and dancers as the highly revealing clothing they have to wear for their sport has been associated with body dissatisfaction and disordered eating (Goodwin et al., 2014). Additionally, the development of effective (e.g., conceals chest) but more comfortable (e.g., less restrictive) and water-friendly chest binders would be a much welcomed product for transgender men.

Wipe out Transphobia

It is evident, based on the challenges and barriers that some transgender people experience, that physical activity and sport environments need to be made more inclusive of gender diversity. Public campaigns that increase awareness of transgender people and tackle transphobia, with the aim of encouraging greater inclusion and participation of transgender people, would be beneficial. Campaigns that use high profile transgender sport personalities may be particularly powerful. The delivery of diversity training to leisure centre staff and sport facilitators/coaches/participants would also be useful, as well as developing a code of conduct against transphobia, and protocols and directives on how to support transgender people during physical activity and sport.

Team Sports

More mixed gendered sports teams need to be developed where there is less of an emphasis on the size and strength of players. When sport organisations are concerned about the skill or strength of competitors, the Canadian Centre for Ethics in Sport (2016) suggest that skill and size categories should be developed, such as in wrestling.

Trans-Specific Groups

There are a few physical activity and sport groups that are ‘trans-specific’, which means transgender people are only invited and these groups are not usually open to the cisgender population. These groups are developed to act as a safe space for transgender people to engage in physical activities and are thought to be particularly beneficial for people who are socially and medically transitioning. Many of these groups (e.g., Different Strokes in Edinburgh, UK; TAGS in London, UK) involve aquatic activities. A case study of a swimming group in the UK (Different Strokes) demonstrated how these groups are low cost to run and are beneficial to transgender people in relation to social connectedness and increasing physical activity engagement (Smith, Cuthertson & Gale, 2012). However, not all transgender people may view these groups as a positive step. Some people feel that such groups increase the segregation between transgender and cisgender people, when instead inclusivity of transgender people in mainstream physical activity and sport spaces should be promoted. This is something that needs to be taken into consideration when such groups are set up.

Sport Policy

To increase the presence of transgender people in competitive sport, more evidence-based and inclusive transgender sport policies need to be developed. The evidence concerning transgender males is clear; they do not have an athletic advantage at any stage of their transition and therefore should be allowed to compete in accordance with their experienced gender without any requirements. The evidence regarding transgender females is murkier. Some people feel that transgender females, due to high testosterone levels (that they have or had), present with an athletic advantage. However, it has been questioned as to whether testosterone is the only marker or even a useful marker of athletic ability. Until this question has been answered it seems unreasonable to place any requirements on transgender females. The Canadian Centre for Ethics in Sport (2016) suggest that any sport organisation wanting to exclude a transgender person would need to provide evidence that testosterone (or hormone levels) are consistently associated with competitive advantage for the sport in question. Currently, there is no evidence to suggest that this would be the case for any sport. Some people may be concerned that the muscular frame that some transgender females have, may act as an advantage in some sports. However, there is currently no evidence to suggest that this would be the case and it is unknown how quickly muscle mass deteriorates once cross-sex hormones have commenced, or whether muscle mass can be maintained through weight training despite a low level of testosterone. Currently, cisgender athletes who are naturally

more muscular than their competitors are not banded from sport and therefore it may be concluded that a large muscle mass is not perceived as an athletic advantage. There are evidently several questions that still need to be answered by science before a conclusion about what constitutes as athletic advantage can be made. Until these questions are answered, sport group managers need to have a good knowledge of sport policy and the legal rights of transgender people to facilitate their inclusion in competitive sport. This can be achieved through education.

Body Positive Environments

Whilst it is unlikely that many transgender people will feel satisfied with their bodies until genderconfirming medical treatments have been completed, body positive environments to facilitate physical activity and sport in the transgender population, need to be created. To create physical activity environments that are body positive, more emphasis needs to be placed on health and well-being, as opposed to physical appearance. Society-wide initiatives that promote self-acceptance and discourage negative evaluation of appearance would be beneficial not only to transgender people, but also people with a range of different gender identities. Additionally, society's attitudes towards stereotypical gender expressions and presentations need to be challenged so transgender people do not feel anxious or fearful about maintaining a clear gender presentation during physical activity and sport.

CONCLUSION

It is evident that some transgender people will experience a range of barriers and challenges when engaging (or attempting to engage) in physical activity and sport. Some of these barriers and challenges are specific to a transgender persons' social and medical transition, and therefore inactivity may be prevalent during the transitional process. Considering the benefits physical activity and sport can have, not only on mental and physical well-being, but also on achieving the appropriate weight necessary for some genderconfirming surgeries, it is vital that accessibility to physical activity and sport is increased. Transgender people disengage with physical activity and sport due to inadequate changing facilities, sport-related clothing, transphobia (experienced and anticipated), binary gendered sports teams, fears surrounding 'passing' and body dissatisfaction. In competitive sport, discriminatory sport policies have also evidently contributed towards the negative experience some transgender people have when engaging in sport. Several of the barriers and challenges that transgender people experience appear to be associated with a lack of awareness and understanding of transgender people within our society. A conscious effort to increase awareness of gender diversity is a vital component in increasing accessibility and improving the inclusivity of transgender people in physical activity and sport. This will facilitate the normalisation of gender diversity, which in turn will improve the lives of transgender people.

LEARNING POINTS

- Physical activity and sport participation are likely to have benefits in relation to both mental and physical health for the transgender population.
- Transgender people are thought to engage in low levels of physical activity in comparison to cisgender (non-transgender) people.
- The main barriers to physical activity and sport participation for transgender people are related to the external sport environment (changing facilities, sport-related clothing, transphobic experiences, and binary gendered sports teams) and internal feelings (worries about ‘passing’, discomfort with the body, and fears of transphobia).
- The majority of sport policies for transgender people are not evidence-based and therefore are unfairly excluding transgender people from competitive sport.
- Physical activity and sport participation can be made more accessible to this population by increasing public awareness of transgender people, and the challenges they may face during physical activity and sport.

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Chapter 28

MY JOURNEY THROUGH TRANSITION

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OVERVIEW

My Journey through Transition is a true story told from the perspective of a transgender woman. It describes 6 categories of transition, including self-acceptance, coming out, medical transition, social transition, gender realignment surgery, and post-surgery from a personal perspective.

INTRODUCTION

Transitioning from one gender to another is a complicated process. It takes years to complete and for many, it is never truly over. It is far more than just a simple route from A to B; it encompasses many different process and experiences. I can probably speak with a lot of authority on the subject considering I have transitioned myself. When I was born, my gender was assigned as male. I always knew that there was something not quite right and as I entered adulthood I realised that my gender identity was at odds with my body. While I looked male, I was actually female. So, I transitioned in all aspects of my life. I now live, breath and exist as a woman.

On this path through transition I discovered that while my experiences were often different to others, most of the processes took similar forms. I call these processes my six categories of transition.

- Self-Acceptance
- Coming Out
- Medical Transition
- Social Transition
- GRS (Gender Realignment Surgery)
- Post-GRS

Through the course of this chapter I will attempt to explain and illustrate the six categories using my own experiences as a basis. It is important to remember that transition can vary wildly from person to person. My experiences are not another trans woman's experiences and vice versa. However, as I discuss my route through the transition process, I hope it will provide vital information to help others understand what transition entails.

SELF-ACCEPTANCE

The first of my six categories is self-acceptance. This is the process whereby a transgender individual accepts themselves for who they are. It may seem a simple thing, to accept who you are, but it is often far from easy. I didn't accept who I was until quite late on and it actually took me to come close to suicide to do it. I knew that I wanted to be female and that in order to achieve that, I needed to confront my gender issues. It sounds simpler than what it was, but it was an extremely tough and hardening experience. Few of us truly confront who we are, even if we believe we do. To look deep inside of ourselves and to gain a true understanding of what you are and how you fit into this world is scary. That is what I had to do in order to accept that I was transgender. This is what many in the transgender community have to do. Some manage it early on, others not until they're middle aged. I was lucky in that I was only in my mid-twenties when I did it. I guess that in many ways I fought against it. I was in a relationship and I saw a future for us where we got married, had children and lived a happy life. In this vision I was the happy father and husband and I wasn't transgender or female. I was a man happy in my own sexuality and gender identity. That was the life I wanted dearly because it was an ordinary life. I didn't want to be transgender; I simply wanted to be happy and comfortable with whatever gender I was assigned. For a time, I truly thought I could do it, create this happy life with my girlfriend. Then, that vision disappeared and reality struck. I knew that I would always have these issues with my gender. I saw others in my situation, long marriages breaking up, because the husband needed to transition. I saw people estranged from their children and I didn't want that. I didn't want to realise at fifty that I needed to transition. If I was going to do it then I needed to do it soon, before I had built anymore of a life. So, that's what I did.

Something else I did at this time was start an online blog. It was essentially a diary where I talked about how I was feeling. Because it was anonymous and online it gave me an outlet to share my deepest insecurities and issues with the world without fear of being outed. I'm still writing the blog now, eight years later.

COMING-OUT

Coming out to my family about who and what I was remains one of the hardest things I have ever done. Saying that, it was also one of the most important. It was something I had to do if I was ever going to transition. I had reached a point in my life where I just couldn't carry on living as a man. It came down to a simple choice. I could either accept who I was and the sacrifices that would possibly come with that or I could just call it a day. It essentially came down to two very distinct options, life or death. Thankfully, I chose life although there were

times, especially in those early days following my coming out, when I regretted that decision. None of my immediate family took it particularly well. My mother was only worried about me; I realise that now. Coupled with that was the mourning period she experienced with the loss of the person she thought I was. She saw this stranger taking the place of her son. At the time I needed to know I had people in my corner. I needed support and I needed help. Of course my family needed that too. It was the most confusing of times for them, the worst of times I guess. That's the awful thing about transition. It's not something limited to the person going through it, it effects everyone who has ever loved that person. My mother was perhaps the one who took the least time to accept who I was and what I needed to do. My father took perhaps a year but now, six years on, he is my biggest supporter and I know how proud he is of me. My sisters came round to the idea of my transition probably quickest of all. My older brother took the longest. In fact, it is only recently, seven years since I came out and six since I began transitioning, that he seems to have accepted me as his sister. Others took it in their stride. My nieces and nephews seemed to accept it pretty much straight away and so did my grandma, who is sadly no longer with us. Looking back on that whole period of my life upsets me still and I struggle to understand how we got through it as a family. Being active on Twitter and seeing how many in my situation have bad experiences with their family makes me sad too. As members of the transgender community we sacrifice so much just to be who we are. I've been unbelievably lucky with how I've been accepted by family and friends. Sure, it was hard at first but some experience that for far longer than I did. Some, are never fully accepted by their families. I'm not going to lie and say that it has all been plain sailing since I came out. I've lost friends, lost contact with people I cared about and had to sacrifice romantic relationships. But, ultimately I'm still a lot happier than I ever was. They say that you can still feel alone in a crowded room and that's how I felt for most of my life pre-coming out. I had friends but they were friends with this other person, this character I played. They didn't know who I really was. The friends I've retained since transition know that person and I've gained new friends as a result. As far as moments in my life go, telling my mother that I was transgender was the most important. Had I not done that, it is doubtful anything that followed would have happened. We got through the first few months as a family and they all accepted me for what I had to do and for that I feel so lucky and thankful.

MEDICAL TRANSITION

When I talk about medical transition, I mean HRT (Hormone Replacement Therapy), counselling and the path towards a surgical referral. This process actually works hand in hand with social transition as for me, both roughly started at the same time. My route towards accessing healthcare was reasonably straightforward but still quite long winded. My mother worked for the National Health Service (NHS) and she managed to get me some counselling at the place where she worked. I spent the best part of eight months visiting this counsellor and it was a big help. We discussed a lot during our weekly sessions and it helped me to understand some aspects of who I was and why. All of this only strengthened my resolve to transition. She was the one who began the referral process to the Gender Identity Clinic by writing to my GP recommending that course of action. Prior to the referral I was informed that to see someone at Leeds Gender Identity Clinic, there was a two year waiting list.

Sheffield wasn't much better at one year. Thankfully, due to my Nottinghamshire postcode, Nottingham Gender Clinic (as it was called then) was the one she referred me to and that was only a three months waiting list. Within a couple of weeks, I had obtained an appointment to see one of the doctors at the clinic for initial assessment. It felt good and exciting because I knew my dream of living as and being a woman was inching closer. The initial assessment phase was made up of three appointments. The first two appointments I would be seen by two different doctors with the third appointment being with both of them. For that appointment I could bring a relative or close friend so I took my mother. It was at that appointment where it would be decided whether to recommend me for the Gender Reassignment Program. It was a reasonably straightforward process which took around four months to complete. The first appointment was with Dr. Bouman and it was good. The counselling I'd had before helped because I was prepared for a lot of the questions I was asked. It was very much like an informal chat, which eased the pressure I had felt heading into the appointment. It put me at ease and I felt I could relax. The second appointment was with Dr. Murjan and that was essentially a different doctor asking me the same questions I'd been asked by Dr. Bouman. The third appointment was the scariest though. I knew I wanted to transition. I'd taken it upon myself to begin that process a month earlier anyway. I'd changed my name and began living full-time as a woman. For me, there was no going back. However, there was still that doubt in my mind. What if they said that I didn't qualify? What if they said I couldn't access hormone treatment? I knew that if they said that, my life would be over. I could never and would never go back to a male life. It simply wasn't an option for me anymore. Thankfully they said yes and just a month later I received my first prescription of hormone tablets. Starting hormone replacement therapy (HRT) was a huge step for me. I knew that my body chemistry would alter and that I would effectively go through a second puberty. It didn't scare me though, it was exciting. I was eager to see how my body would change and eager to embrace those changes. With regards to HRT, one of the biggest shocks was how much they affected my emotions and how quickly this happened. I began to cry easier and I had a few bad mood swings. I think that I had only been thinking about how much the tablets would change my physical characteristics. The mental side of things just hadn't crossed my mind. While my emotions went wild, the physical side took longer. Eventually, I noticed that my skin was softer and I had started developing breasts. I was happy and growing more content with who I was becoming. They were exciting times.

Once I had been on HRT for a while, I was prescribed a testosterone blocker. This came in the form of a monthly implant although I soon moved on to a quarterly one. I hated it because having it injected really hurt and often left a bruise the size of a fifty pence piece. My GP had been extremely good with the prescribing of HRT pills but he wasn't keen on prescribing the implant. This was the only time I had any problem with him. Eventually I managed to get it sorted out, whereas Dr. Bouman at the Nottingham Gender Clinic prescribed the blocker and my GP only administered it. Once I had my operation, I no longer required the blocker, although I will have to take hormones for the rest of my life. I'm currently on six pills a day, three in the morning and three at night. It's just part of my life now, part of the routines I go through when I get up and when I go to bed.

SOCIAL TRANSITION

For me, social transition began around the same time I began seeing that counsellor at my mother's work. However, some begin transitioning socially long before they access any health services. For others, it isn't possible to transition socially until they've begun HRT.

My social transition began even before I was referred to the Nottingham Gender Clinic. I knew that I wanted to go full-time as a woman so I began being more vocal about it on Twitter and Facebook. I also started introducing my female persona to people at work. This began seven months before I went full-time. I decided to attend the work Christmas party as Emma. Looking back, it was the craziest of ideas and an absolutely huge risk. My work mates could've rejected me and my life at work afterwards could have become impossible. It was a risk that was worth taking though, because it was my first step towards living an authentic life. Many within the transgender community talk of living an authentic life. For a lot of these people it is the main driving force fuelling transition, the chance to finally be free from lies and secrecy. The chance to stand up proud and proclaim "This is me; this is who I really am." That was definitely something I desired early on in my social transition. I had reached a point where the secrecy around my authentic self was affecting me in a deep way. It affected my emotions and thought processes. Whatever I did regarding my female side, I did so with the understanding that no one could ever know about it. In the end, as my secrets began to unravel during the coming out phase, I decided that authenticity was the only way forward for me. With this desire for authenticity came yet more self-acceptance and I guess in many ways, by introducing my female identity to the people I worked with I was finally truly accepting myself. Following the work party, I was finally out and proud. It was a relief more than anything. There were no more secrets and I could be my wonderful authentic self for the first time in my life. This event also proved great for the confidence and I began going out into the real world as a woman more and more. Whether to my counselling sessions or even the odd night out into my local town, I was finally making the most of who I was and progressing towards a life where I could be me. Following my first two appointments at the Gender Clinic, I finally went full-time as a woman in July 2010. I changed my name by Deed Poll to Emma Victoria Jewkes and began living all aspects of my life as a female. I'd be lying if I said it was easy, but in many ways it was easier than the life I had been living up to that point. My family slowly came around to my new way of life, but that was probably because they had no choice in the matter. I also hope that they saw how I changed, how my confidence improved and how happy I became. My biggest challenge in regards to going full-time was work. I had a great support network among my colleagues but there were still the odd ones who saw the whole thing as a joke. I was also dead named fairly often in those early days. Dead naming is when someone refers to a trans person by their old name, their dead name. However, despite these early problems things quickly settled down at work and in my life in general.

A big part of the social transition is learning how to be a woman. While in my head I had been female for all of my life, I had still been forced to behave like a man. I had been pushed towards male pursuits and in order to keep my gender issues secret I had perhaps behaved more like a man than most. Learning how to walk, talk and act like a female is something I'm still learning, even now. Learning how to dress and how to style long hair has also been a

huge challenge but one I've enjoyed. All of this is part of transitioning socially and the truth is that it's probably something I will always be doing.

GRS (GENDER REALIGNMENT SURGERY)

On Monday the 25th March 2013 I had my Gender Realignment Surgery. It is worth noting that this is often referred to as Gender Reassignment Surgery. The reason I call it something slightly different is that I don't feel my gender was reassigned. I was always female so my body was realigned with my mind. The surgery was performed by Mr Bellringer at Charing Cross Hospital in London in the UK at around a quarter past four in the afternoon. I will truly never forget that day nor the week that followed. Prior to being referred for surgery, I'd had a few discussions with my doctor at the Gender Clinic about the risks and what I could expect from surgery. Despite the risks I was determined and fixed in my resolve to go through surgery. I had to check into the ward at eleven o'clock on the morning of my operation. I then spent the rest of the day having visits by the anaesthetist, various nurses and Mr Bellringer himself. Because the surgery takes place so close to the bowels, I had to have an enema which was an experience, because I'd never had to have one before. Then, it was my turn for surgery and I was wheeled up to theatre. When I woke up after the surgery I can remember my body feeling incredibly heavy and I felt like I wanted to throw up. For one horrifying moment I thought I'd woken up during surgery. Thankfully, I hadn't and after what seemed like an age I was taken back to the ward. This gave me a chance to have a look at the surgical area for the first time. My entire groin was bandaged up in what can only be described as being a sumo wrestler's nappy! There were two tubes coming out of it, a drain and a catheter. The drain tube ended in a cylindrical tube that was hooked up to a stand. A gooey red liquid had begun to collect in the bottom of the tube. The catheter tube ended in a bag which was on a small stand at the foot of my bed. Along with these two tubes protruding from my surgical area, I also had a tube attached to my right arm which delivered the morphine. I had a button which, if I pressed it, gave me a shot of morphine with a beep.

That first night was such a long night, one of the longest I'd ever experienced. The first night after surgery they needed to check my blood pressure, heart rate and temperature every hour so it was a night full of disruptions. The general anaesthetic, coupled with the morphine, had also made me nauseous and so I felt sick most of the night. I was also really dehydrated so the water next to my bed proved to be a godsend. In that first night I drank in excess of three litres! The following day I had my dressings removed and the drain taken out. The area looked different to what I was expecting. It was incredibly bruised and there were two thick suture lines leading up into a 'V' shape. I was shocked but also aware that as it healed it would change and hopefully look better. The first few days following the operation were just about beginning recovery. They were boring and long. It wasn't until the Saturday when I had my packing taken out that life began to get interesting. In order to keep the vagina open and to allow some healing, Mr. Bellringer had packed it. Taking this packing out was a long, slow and extremely painful process. If I ever had any doubts over my transition, then this was probably it. It was absolute agony. Once the packing was out I was showed how to dilate. In order to prevent the vagina from closing up, transgender women have to dilate with these Perspex cylinders. At first, I had to dilate three times a day although over time the frequency

goes down. Now, three years after surgery, I only have to dilate every few months. During the final few days of my hospital stay, my parents came to visit. Seeing them meant the world because to me, it finally showed that I had gained their full acceptance. There had been times when I had first told them about who I was that I wondered if they would ever accept me. Now I knew they had and it felt great.

Surgery is the riskiest of all of the processes involved with transition as so much can go wrong. On a personal level, I have heard of some true surgical disasters. Thankfully, I'm perfectly happy with my results. I haven't had many complications, my depth is reasonably good and I've got full sensation. I'm really happy with it, as I am with many aspects of my transition.

Post GRS

One of my biggest challenges of transition was recovering from GRS. It was hard. I thought I was relatively fit and I was only thirty-one at the time. The surgery still knocked me off my feet though. Just a few days after leaving hospital I found out I had an infection. I was put on antibiotics and they only prolonged the recovery. I just felt tired all of the time and the dilation I had to do three-times a day was a real slog. The first time I had dilated in hospital had been okay, but once I got home it was awful. It was true agony at times. I was pushing against fresh scar tissue, but it was something I had to do. I had no choice. On one occasion, I removed the big dilator to see it covered in blood. It gave me a real shock but it turned out I'd only pulled one of my stitches. Recovery took around six months all together. Through this time, I continued to have appointments at the gender clinic although eventually there came a time when I didn't need them anymore. Essentially I was cured and their services were better used on someone who needed their help. One of my challenges following my discharge from the gender clinic has been with regards to hormones. I have yearly blood tests to monitor my levels but I'm never truly sure if I'm on the right dosage. Maybe I just need to trust my GP more, although it would be better if I had access to an endocrinologist who could monitor my hormone levels closely. One of my other big challenges has been my attempt to fill the transition hole. It had been around four years since I had come out to my parents as transgender so for all of that time I was occupied with the idea of transition. It's no exaggeration to say that it had been literally all I had thought about. Even beyond that time, for twenty years prior, I had had gender issues. Now I was 'cured'. I had transitioned. What would I do now?

One of the first things I did following transition was to obtain a new birth certificate. In order to do this, I had to apply for a Gender Recognition Certificate. This was a drawn out process in which I had to supply evidence that I had been living as my true gender for at least two years. I also had to provide notes from two doctors and I had to get a solicitor's signature. My application was then put forward to the Gender Recognition Panel and thankfully they accepted my application. Just a couple of days before my thirty-second birthday I received my new birth certificate through the post proclaiming my gender as female. That dream I had had from the age of six had finally come true, I was a girl and it was written in law.

I know many in the transgender community who don't attempt to obtain a GRC, because of how protracted the process is. I know others who just see it as a piece of paper. For me it's

more important than that. It's a validation and proof of my gender should it ever be questioned. Once I began transition I knew that I needed the surgery and the new birth certificate. Only then would I consider transition complete. For me, transition has unequivocally changed my life for the absolute better. I'm a totally different person to the one I was eight years ago and not just physically. I'm mentally stronger, more confident and generally happier in myself. I find it easier to deal with problems and I'm so eager to see where my future goes. Also, going through transition has given me confidence in my abilities to achieve. If I can successfully transition, then I can do anything right? This outlook has seen me go back to school and now I'm at university. I'm so ambitious and I have transition to thank for that. These are indeed the best years of my life.

LEARNING POINTS

- Not all transgender people experience transition in the same way. Many have far harder transitions than I did, a few have an easier one. It is not a one size fits all process, not in reality at least.
- Starting my blog was extremely helpful for me. It acted as a form of counselling and helped me to come to terms with many issues I had deeply buried.
- The most important part of my transition was when I told my parents that I was transgender. Without that, nothing that happened since could've happened. Obtaining my parents support, however long it took, was so important as their support carried me through a lot of the time.
- Counselling was an extremely important part of my medical transition. My sessions helped me to accept who I was. That was the only way I could expect others to accept me.
- Transition is just as hard on those around us and I think we forget that sometimes. It's so easy to become self-involved through transition, that we don't take into account our parents and siblings actually go through a mourning process.
- It is important to understand that HRT effects the emotions before they ever touch physical characteristics. Mood swings and big emotional changes are par for the course.
- Transitioning socially is a long process that continues beyond any surgical procedures. It is something that can, in essence, continue indefinitely. This brings forward the question, do we ever truly stop transitioning?
- Gender Realignment Surgery is just one of the surgical procedures a transgender person may undergo. Facial Feminization Surgery is becoming increasingly popular, as is a tracheal shave (to remove signs of an Adam's apple and aid a female voice). Also, many transgender women, myself included, have breast augmentation surgery.
- One of the biggest challenges I faced following my GRS was what to do next. With my discharge from the Gender Identity Clinic, I struggled for support in that respect.
- Transition is a long process and one that cannot be taken lightly, by anyone. However, I can profess that successful transitions are a reality. I am proof of that in many ways. Just be patient, understand how your family and friends feel and stick to your route. If it's the right thing, it will happen.

FURTHER READING

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HELPFUL WEBSITES

- Mermaids - A charity, which helps and offers support to children, young people and their families when gender identity issues arise.
<http://www.mermaidsuk.org.uk/>.
- The Angels - A support website for members of the transgender community. Gives you the opportunity to chat with others experiencing gender identity issues.
<http://theangels.co.uk/>.
- The Rainbow Beyond the Clouds - My own personal blog where I documented my transition and which has been such a huge help to me over the years.
<http://the-not-so-secret-life-of-emma.blogspot.co.uk/>.

Chapter 29

MUCH ADO ABOUT SEBASTIAN

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OVERVIEW

Much Ado About Sebastian is a true, chronological timeline of a story told from the perspective of a 23-year-old transgender man. It begins with him reflecting on his childhood, then moves onto his many struggles with coming to terms with (and accepting) his true identity; including the build up to – and aftermath – of his coming out publically... which contains details, and personal anecdotes, about how both his family and friends reacted to the news. It ends with his up-to-date thoughts and feelings on his progression as a trans man – from childhood to adulthood... and the future beyond.

CHILDHOOD AND PRE-TEENAGE YEARS

As a child, and in my younger years, I always found myself strongly disliking anything that was seen as ‘stereotypically female’. Not only did I simply *detest* ‘girls’ clothing’, but wearing it gave me a feeling of great discomfort, frustration, and an ominous sense of unease. I remember having frequent negative reactions to my parents’ wishes to dress me in ‘girls’ clothing’ such as dresses and skirts (this often resulted in arguments and tears – the latter from myself). I would opt for simply wearing jeans and a t-shirt whenever I could get away with it. In a way, it was my first attempt at taking a stance on my gender identity. After many years of protesting: once I was old enough to choose my own clothes (both the ones I was wearing that day, and when purchasing new items of clothing), I would only ever wear fairly androgynous clothing... or jeans, shorts, t-shirts, and jumpers according to the weather. Most of which I persuaded my mother to purchase from the ‘boys’ section’ because they were often cheaper and of a higher quality. Something I knew she wouldn’t moan about. One certain memory that still remains strong in my mind is that of one particular day, in the last year of primary school. It was the day that the headmaster made an announcement that “from Monday, we will be allowing our female students to choose whether to wear skirts or trousers

as part of their school uniform”. I was overjoyed at this news! I finally felt an outward sense of progression in the world of gender expression. Even if I didn’t fully understand all of that at the time. After that day I only ever wore tailored trousers as part of a school uniform (during the remainder of primary school, then throughout secondary school). Luckily, once I entered sixth form (which was attached to said secondary school), we were allowed to stop wearing the uniform and attend in our own casual clothing.

Once I entered secondary school my perception of myself changed quite dramatically. I became increasingly independent and ever more aware of the subconscious hints my body and brain were sending me. I experimented with my personal style and how I presented myself, including how I behaved. It was during secondary school, around the ages of 12-14, that I started wearing ‘boys’ clothing entirely/exclusively. And by the time I reached fourteen, I didn’t own a single item of ‘girls’ clothing’. From the age of 14-16, my hair resembled the hairstyle I have today: short, and stereotypically male. During this time period I also found my mannerisms changing: I started mirroring, and copying, how my male friends acted... and found comfort when younger children/strangers couldn’t ‘figure out’ if I was “male or female”. I would often get asked by younger students if I was “a boy or a girl”. The comfort came solely from the fact that some strangers didn’t automatically assume I was ‘definitely female’. I didn’t mind the confusion over whether I was male or not at the time. I just desperately didn’t want to be read as female by the general public. Additionally, I began using chest binder from the age of fourteen. This had a strong, positive effect on my confidence and made me slightly more accepting of my body (whilst I had it on). Yet I was *still* somewhere between personal comfort and discomfort. Little did I know that I had a lot of self-discovery left to undertake...

AGED 14/15 - QUESTIONING MY GENDER IDENTITY

I began to question my gender identity when I was fourteen, back in 2007. It’s now 2016 and I’m 23 years of age. The term transgender, at the time, was still fairly new to me. At that point in my life, it was simply another term I had picked up in a Biology lesson. I didn’t even think to apply the word to myself, but I started realising that I shouldn’t have been assigned the title of ‘female’ at birth. It was at this age when I began reflecting on my younger years, my behaviour, thoughts, feelings, and memories. Thinking about these things helped me figure out that I *should* actually have been born/assigned the title of male at birth. One would imagine that such a discovery would trouble a young person – but instead it provided me with an authentic sense of self. I was finally becoming self-aware of my true identity as a transgender man. It was during my early teenage years that my Gender Dysphoria was at its worst; I was aware (but not 100% accepting) of who I was as a person, but I didn’t feel ready to admit it to myself, fully, or to anybody else... at all. I remember the devastatingly negative impact this had on my self-esteem and mental health. Writing this, now, I really wish I’d know about such services as Transgender Health Services (of which I’m currently a patient at one). It would have saved a lot of pain and suffering and destructive thoughts to have known this back then. After all, I was beginning to realise who I was as a person... but to everybody else, I was still somebody else. Somebody whom I should never have been. From the ages of 14-16 I was fully aware of my transgender status, yet I couldn’t accept the fact until I was

around sixteen going on seventeen. Mainly because of the stigma surrounding transgender people and the misconceptions that a lot of people have about us.

AGED 16-17 - EARLY SOCIAL TRANSITION AND 'FINDING THE RIGHT NAME'

During the time period of 2009-2010, I not only became fully accepting of my gender identity and status as a trans person, but I began socially transitioning (in a way). I experimented with different names to see which one felt right to me and which one suited me as a person. I tried: Isaac, Zack, Ryan, Jay, and Kyle. None of them felt true to my identity. It was later on that the name Sebastian was suggested to me by my secondary school & sixth form English teacher – a man who was openly gay and the first person I came out to – that became my 'new name', and is now my legal name. It was when I was sixteen that I requested that a few of my close friends start using a male name (as opposed to my 'birth name') and male pronouns when talking to me and referring to me. In addition to this I also started doing lots of extensive research into the medical aspect of transitioning. At the beginning of 2014, around about late January/early February, I re-evaluated the name I was using to introduce/refer to myself as (Zack). I had reached a point where it no longer felt like 'me'. It no longer seemed fitting or representative of who I am as a person, so I thought back to my English teacher, who's now a close friend, and remembered the name he thought suited me. It was after that that I firmly decided on the name Sebastian/Seb and began using it consistently throughout my day-to-day life. This is the name that I then changed my legal name to on the 06/07/2014. Alongside this, I looked into and researched cross-sex hormone treatment (CHT) and Gender Affirming Surgeries. I found information on different ways I could access the hormone treatment and the various operations, then weighed up the 'pros and cons' of National Health Service (NHS) versus Private treatment. Around that time I also made the decision to come out to my friends and family, as bisexual. Looking back on that now: their acceptance of my sexuality would probably have meant they'd have accepted my gender identity as well.

'COMING OUT' PUBLICALLY

There have been countless events during my life, so far, that I could claim have been "the scariest moment(s) of my life!" Some dangerous (for myself and/or loved ones), some nerve-racking, a few uncomfortable, and far too many that resulted in ruminating worrying. Yet, 'coming out' as transgender to my parents terrified me to my very core. I recall thinking to myself (as I mentally prepared myself to tell them) that I'd much rather walk across a motorway blindfolded than simply admit my true gender identity to my parents. It was because of my fears surrounding my parents' reaction that I postponed the coming out process – for several years – my apprehensions made 'finding the right time' to tell them even more difficult. Now I so very much wish I had told them sooner. Especially, as I've been diagnosed with (and still battle with) many mental health disorders. The thought of coming out to my parents had such a profound and damaging effect on my overall mental health and wellbeing

that I suffered two major breakdowns in the build up to the event – one of which resulted in me ending up being rushed from my friend’s house to hospital, and the other resulting in a relative having to desperately call paramedics to the house to repair the damage I did to myself in the process of my mental breakdown. Having engaged in self-destructive behaviour from the early age of eleven, up until early adulthood, those feelings came flooding back every time I thought about telling my parents, thus resulting in the above disastrous events. To me, the suffering and pain I *could* have inflicted on myself (instead of coming out to my parents) seemed, at the time, less distressing than the act of disclosing my status as a transgender man. My assumptions surrounding my parents’ reactions were: they’ll disown me, they’ll hate me and think of me as abhorrent, they’ll find me inhuman; disgusting... or a ‘freak of nature’, they might hurt me, I’ll get kicked out; I’ll be abandoned and alone forever without the family support network I so incredibly and desperately need. Once I’d eventually worked up *just* enough courage to tell them I began planning on how to undertake the task. I prepared for, and expected, the worst. At the time I was taking some time off from University due to stress. So, unbeknown to my father who was downstairs watching TV, I began to pack a suitcase that contained clothing to suit anything the British weather could throw at me, certain favourite personal possessions, and a few comforting items, as well as a selection of entertaining/engaging belongings. Following on from that I located the several bits of handwritten notes I’d made for my ‘coming out letter’ and set about typing the (1,978 word) letter. By this point I could hear my father outside, playing with our dog in the garden and enjoying the hot July sunshine. Quite the opposite atmosphere to that which encapsulated my bedroom as I sat on the floor coaxing my printer to work, chilled to the bone, as my ‘fight or flight’ instinct began to kick in... accompanied by the fact that I’d drawn my curtains and shut my door. Unable to bring myself to connect with warmth of the world outside me. So I hunched over; anxious, bitter, upset, angry, and afraid as I forced my fingers to fly across my keyboard in a bid to pour my heart out to my parents whilst trying, constantly, to find the right words to both explain (in a way they’d understand) how I felt and where I wanted to go from there. As well as trying to word it in a way that would appeal to their maternal and paternal instincts in the hope that if I worded it well enough my fears – as mentioned previously – may not come true. Once my letter to my father (whom I reside with) was printed, I crept into his room and left it on his bed. Then emailed my mother a copy of the same letter (as she lives in a different town). I knew my dad wouldn’t be going back into his room before I left the house; I also knew my mother – not being ‘tech-savvy’ – wouldn’t check her emails until I told her to. So after undertaking those tasks I gathered my stuff together, put on my best happy persona and headed downstairs. Then asked if my dad could drive me down to the University accommodation where I was living at the time, under the pretence that I was “going to visit my housemates for a long weekend”. I chose to inform my parents via letter, not only for the aforementioned reasons, but to afford them the time to read it; re-read it and discuss it together and adjust to the news. Thankfully they both took it very well. My mother and step-father adjusted to the change quicker than my father – they began using my correct name and pronouns from the moment they knew. My father, however, he took around six months to become accustomed to the change. My personal take on this is that because my father and I are so close to one another that any major change that happens in my life seems to affect him also. That and it was he who chose my ‘birth name’, so... for want of a better phrase: he had to mourn the loss of his ‘daughter’ whilst trying to get used to having a son. It was two days into my “long weekend” that my mother called me to discuss the news. I

was, at the time, sitting with a few of my best friends in a pub's beer garden. Comfortably enjoying the mid-afternoon sunshine and the company of several people who all knew about my true identity. It was during that gathering – a memory still so very vivid to this day – that I heard my phone, on the table in front of me, begin to ring. The caller ID showed that it was “Mum”. I didn't want to answer. All the prior fear that had slowly drifted away came flooding back; I was drowning with anxiety and panic. I recall welling up: my throat lumped and my eyes were ready, and waiting, to pour out all they had. In my mind: this was it, this was the moment all the horrors were going to come true. Thankfully, before I gave into my anxiety and dismissed the call, my friend grabbed my phone and answered it for me. She had a good, general chat with my mum whilst I sat opposite her feeling like the world was about to collapse in on me. Despite the heat, despite the joyous atmosphere, despite the fact that I was surrounded by supportive and caring friends... I was numb. Physically I was still sat at the table with them, mentally I wasn't even on the planet. I could hear sounds around me, but my ears weren't listening. I could glance at the sights around me, but my eyes weren't focusing on seeing them. So detached from reality, it took my friend opposite me several moments of waving my phone in front of my face, and my friend next to me – prodding me in the side – to bring me back to reality. I reluctantly reached out and took my phone back. I brought it to my ear, opened my mouth... but couldn't make a sound. “Hello, hello?!” my mum repeated over and over until I eventually replied with a simple “Hi”. I didn't do much talking during that call, but my mum did. “So... [Insert ‘birth name’ here] or should I say... Sebastian: I've read my email and your dad's read his letter; he invited me over to your house so I could have a chat with him about it. Neither of us were *particularly* surprised at the news; you were never typically girly growing up – in the way you dressed and what your interests were. I think it might take a while to get used to, I know you mentioned in your letter that you'd like us to start using Sebastian/Seb and male pronouns. We'll try, we really will, sweetheart, but please don't be too angry or upset if we get it wrong sometimes... it's gonna take a while to replace one with the other. But, I'm proud of you. I really am. Thank you for telling us, and explaining how you felt. So long as you're happy and you know this is who really you are, we'll try our best to support you in any way we can. I'm going to go and let Dave [my step-father] read the letter now, and have a talk with him about it. Then when you get home, your dad's already decided that you, I, and he are all going to meet at your house and have a proper talk about it. You can tell us anything else you need to, and let us know where we go from here... ” After that I mumbled words of thanks, unable to form proper sentences for fear of bursting into tears of happiness/being overwhelmed. Then ended the call. Meanwhile, the handful of friends sat around the table with me had all ceased their merry chatter and were all looking towards me, waiting to see what the outcome was. They, along with me, were all incredibly happy at the fact that my coming out to my parents went so well.

To inform the friends of mine who didn't already know, I sent them various messages by text and social media. Then around a month after this was when I contacted my General Practitioner to request a referral to a transgender health service, where I am currently receiving treatment(s).

AGED 18 - STARTING UNIVERSITY

I started University in the autumn of 2011. Whilst I was registered under my ‘birth name’ and ‘assigned gender’, I introduced myself using my preferred name and pronouns to both students and staff alike. All of the friends I met, most of which I still have now, know me as male only. I chose not to disclose my trans status straight away as I wasn’t comfortable sharing such sensitive information. I decided – after a few months of being at University – to disclose, to a handful of my closest University friends, that I am, indeed, transgender. All of aforementioned friends took the news well and it didn’t change, or have a negative impact on, our interactions at all. In fact, it brought us closer together. They took it upon themselves to educate themselves on trans-related topics, and also (very kindly) came to my rescue when unsavoury characters misgendered me; refused to use my correct pronouns or name. In addition, it was also during my first year at University that I began using the male toilets and changing rooms for the first time. Both on and off campus, starting to use these facilities boosted my self-esteem and helped alleviate some of my Gender Dysphoria, even though (occasionally) people would take it upon themselves to question my eligibility to access the male facilities. At first, people questioning my bathroom/changing room usage bothered me... but after a while I began to expect it – so as it happened less frequently I became less concerned about other people’s thoughts and ignorance on the matter. Around this time was also when I started using an STP (stand-too-pee) devise, to enable me to urinate standing up at a urinal/toilet/outside. This, too, had such an uplifting effect on my overall sense of self, and mental health. Although I’ve gone through a few STPs over the years – due to wear-and-tear – I still use them and will continue to do so until I can access surgery that will allow me to cease using them and allow my body to perform that particular function for me.

ATTENDING THE TRANSGENDER HEALTH SERVICE - GENDER AFFIRMING SURGERY AND ‘THE FUTURE’

Now that all of the above is but past memories and events: I am still currently a patient at a transgender health service. I meet with one of the specialists/clinicians regularly to enable us to discuss my progress, and monitor my medical transition. Since accessing the service(s) that they provide my life (including mental, physical, and emotional health) has improved dramatically, beyond my expectations. I’m healthier, happier, more confident, and genuinely looking forward to ‘The Future’ and continuing my life as the man I was always supposed to be. Which, before being referred here, I really wasn’t – at all. With the help of the particular specialist/clinician I attend appointments with: I’ve been lucky enough to have been granted one of my planned Gender Affirming Surgeries – the aftermath of which has been so incredibly liberating and freeing. I no longer feel entirely constrained and constricted by my body; I feel like my life as my true self has been fast-forwarded by years. And I imagine the same will be applicable once I’ve accessed further surgeries in the future. Taking a brief moment to remember how I felt – sitting in my General Practitioner’s office, holding back tears, trying to explain how I felt... and having to help him with the process of referring me to the particular transgender health service I attend – I now truly understand just how fundamentally important places like these are. The transgender health clinic’s support

network (from the staff) is infallible; the specialists/clinicians truly care about their patients' health and wellbeing. Not only in relation to transgender issues, but in general. They care. They listen. They understand. They empathise. They make you feel like a normal human being who matters. They go above and beyond what's expected of them to help their patients become who they should have always been from birth. They change lives for the better; they *saved* my life... it takes a lot to admit that fact, but it's true. It's so important that other trans-people, like myself, get access to places like the one I attend. It is thanks to their incredible help in getting me to where I am today that I'm able to sit here and type this. I dread to think where I'd be without the service(s) that the transgender health service (and mainly my assigned specialist/clinician) have provided me with. For that I shall be *forever* grateful.

LEARNING POINTS

- Approaching a medical professional, to ask for help, regarding accessing help/treatment from a transgender health service is best done sooner rather than later.
- Try not to let your fears and insecurities defer your coming out, you're more likely to get the help/treatment you need faster if you don't keep postponing it.
- The general public are becoming much more accepting of transgender people than you may think. The people you think are the ones to be the least accepting of you can often be the ones who support you the most.
- Don't be afraid to experiment with your gender identity: try out lots of different names before choosing the one you're going to stick with. Maybe even involve family/guardians/friends in this process – it'll help them feel more involved!
- Seek out others in a similar situation to yourself, LGBT+ clubs/societies/groups are fantastic for this. Peer support, when you're going through such a life changing thing as transitioning (be it social, medical, or both), is vital! Not only is it vital because of the help and advice you can access, but it'll help prevent the whole process from having a negative impact on your overall mental health and wellbeing.

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