The impact of service user's suicide on mental health professionals

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Objectives. Our principle objective was to examine the personal and professional impact of service user (SU) suicide on mental health professionals (MHPs). We also wished to explore putative demographic or clinical factors relating to SUs or MPHs that could influence the impact of SU suicide for MHPs and explore factors MHPs report as helpful in reducing distress following SU suicide.

Methods. A mixed-method questionnaire with quantitative and thematic analysis was utilised.

Results. Quantitative data indicated SU suicide was associated with personal and professional distress with sadness (79.5%), shock (74.5%) and surprise (68.7%) particularly evident with these phenomena lasting less than a year for more than 90% of MHPs. MHPs also reported guilt, reduced self-confidence and a fear of negative publicity. Thematic analysis indicated that some MHPs had greater expertise when addressing SU suicidal ideation and in supporting colleagues after experiencing a SU suicide. Only 17.7% of MHPs were offered formal support following SU suicide.

Conclusion. SU suicide impacts MHPs personally and professionally in both a positive and negative fashion. A culture and clear pathway of formal support for MHPs to ascertain the most appropriate individualised support dependent on the distress they experience following SU suicide would be optimal.

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Introduction

Almost 800 000 deaths per year worldwide are attributable to suicide, with approximately one individual dying by suicide every 40 seconds (World Health Organisation, 2017). In Ireland, 399 [males = 318 (79.7%)] individuals died by suicide in 2016 (Central Statistics Office, 2016). Approximately 40% of individuals who die by suicide have had some previous contact with mental health services (Luoma et al. 2002; Kielty et al. 2014) with 70% of these individuals having contact with mental health services in the 12-month period before their death (Appleby et al. 2014; Kielty et al. 2014). Rates of suicide in psychiatric inpatient units are significantly higher than in the community, accounting for approximately 3-5% of all suicides and often occur shortly after service user (SU) inpatient admission (Qin & Nordentoft, 2005; Qin et al. 2006; Reutfors et al. 2010; Walsh et al. 2015; Madsen et al. 2017).

Many mental health professionals (MHPs) have treated SUs who subsequently have died by suicide, with previous data noting that 67-92% of consultant psychiatrists (Landers et al. 2010; Rothes et al. 2013), 47-61% of psychiatry doctors in training (Dewar et al. 2000; Pilkinton & Etkin, 2003), 55% of psychiatric nurses (Takahashi et al. 2011) and 22-70% of allied health professionals including psychologists and social workers (Gulfi et al. 2010; Trimble et al. 2000; Sanders et al. 2005) have treated SUs who have subsequently died by suicide. The suicide of a SU has previously been demonstrated to adversely impact MHPs, with guilt, sadness, shock, preoccupation with suicide, anger, irritability and depression reported (Chemtob et al. 1988; Grad et al. 1997; Alexander et al. 2000; Yousaf et al. 2002; Sanders et al. 2005; Bohan & Doyle, 2008; Castelli Dransart et al. 2014; Gulfi et al. 2016). A close therapeutic relationship or significant involvement in the care of the SU are factors associated with greater emotional sequelae and professional self-doubt for the MHP (Gaffney et al. 2009). Additionally, the experience of a SU suicide can potentially impact negatively on future

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clinical work practices. For example, some MHPs who have experienced a SU suicide have expressed selfdoubt regarding their competence, describing a reluctance to work with SUs with suicidal ideation (Chemtob *et al.* 1988; Cryan *et al.* 1995; Linke *et al.* 2002; Gaffney *et al.* 2009; Gulfi *et al.* 2010; Rothes *et al.* 2013; Wurst *et al.* 2013). Other adverse sequelae noted by MHPs following the suicide of a SU include concerns regarding adverse familial reactions and potential legal consequences (Bohan & Doyle, 2008; Gaffney *et al.* 2009; Landers *et al.* 2010; Wurst *et al.* 2010).

However, professional development after experiencing a SU suicide has also been reported by MHPs including previous reports of an enhanced capacity to establish therapeutic relationships with SUs, more detailed record keeping, increased use of peer consultation, heightened awareness of risk, improved accuracy in risk assessment and the development of a greater balance between work and personal life (Cryan *et al.* 1995; Landers *et al.* 2010; Rothes *et al.* 2013). In addition, the negative emotional and adverse professional impact of a SU suicide experienced by some MHPs have been shown to reduce in severity over time, resulting predominantly with a return to previous levels of occupational functioning (Landers *et al.* 2010; Wurst *et al.* 2013).

The most valued and most often utilised support by MHPs following the suicide of a SU has been reported as informal peer support (Pilkinton & Etkin, 2003; Gaffney *et al.* 2009; Darden & Rutter, 2011); however formal supports including team meetings, debriefing, psychological autopsies and case reviews have also been reported to be beneficial in relation to reducing the personal and professional impact of a SU suicide (Cryan *et al.* 1995; Wurst *et al.* 2010; Rothes *et al.* 2013).

In this study, we comprehensively examined the impact both personally (including emotions such as sadness, fear and shock) and professionally (including heightened awareness of risk, avoidance of high-risk SUs, fear of litigation, desire for time off work) of SU suicide in a large group of MHPs across multiple disciplines. Additionally, we wanted to ascertain if demographic or clinical factors relating to SUs or MHPs influenced the distress experienced by MHPs. Finally, we wanted to identify factors MHPs perceived as most helpful in reducing their distress following the suicide of a SU.

Methods

Study design

The questionnaire utilised in this study was based on the questionnaire utilised by Landers *et al.* (2010) which investigated the effects of SU suicide on Irish consultant psychiatrists and was provided with permission by the authors on 05/06/2013. The content was modified by two researchers (P.T.M., A.v.L.) to enable use across a range of MHP groups. An additional critical analysis of the existing literature was subsequently conducted evaluating the impact of SU suicide on MHPs (Alexander et al. 2000; Landers et al. 2010; Wurst et al. 2010; Rothes et al. 2013) by a multi-disciplinary focus group including psychologists, psychiatric nurses and psychiatrists with the aim of supplementing material to the modified questionnaire used by Landers et al. (2010). Three researchers (P.T.M., A.v.L., R.o.R.) finalised the 132-item questionnaire utilised in this study and included items quantifiable by 4-point Likert scales with open questions aiming to generate enriched qualitative data. Questionnaire data acquired pertained to the demographic and clinical features of MHPs who had or had not experienced a SU suicide. For those MHPs who had experienced a SU suicide, demographic and clinical data pertaining to the SU, whose suicide was recalled as most distressing for the MHP was collected. The rationale for asking MHPs to consider the most distressing SU suicide was that details pertaining to this SU may potentially be best remembered, that MHPs were most likely to be aware of the distress they experienced and that MHPs may also have been aware of what supports they attained and found helpful or unhelpful following this SU suicide. MHPs were asked to provide a diagnosis for SUs utilising the International Classification of Diseases diagnostic classification with instructions not to provide a diagnosis where uncertainty was present (n = 4). Additional data acquired included recalled levels of distress experienced after the SU suicide, the impact of the SU suicide on the personal life and professional functioning of the MHP, and changes in professional practices and supports that were attained or were deemed to be potentially beneficial after the SU suicide.

Participants

Questionnaires were distributed to all 508 MHPs (psychiatric nurses, psychologists, psychiatrists, occupational therapists, social workers and other mental health staff members) employed in a large catchment area in the West of Ireland (population of approximately 315 000) across different mental health disciplines (general adult psychiatry, child and adolescent mental health, psychiatry of later life, rehabilitation psychiatry and liaison psychiatry) between June and November 2015. Questionnaires were in paper format and sent by internal mail the researchers, with contact details provided for the first author (P.T.M.) if any queries were present. A total of 179 questionnaires were returned yielding a response rate of 35.2%. In total, 83 MHPs (46.4%) who responded had previously treated a SU who died by suicide with the median number of suicides reported as two. Not all questions were completed by all respondents, resulting in a marginally lower response rate for some items. In order to maintain confidentiality and optimise response rates, questionnaires were not coded or ordered in any fashion. Ethical approval was obtained from the Galway University Hospitals Research Ethics Committee.

Quantitative analysis

Statistical analysis was performed for quantitative data using the IBM Statistical Package for Social Sciences (SPSS) 24.0 for Windows. Independent *t*-tests were used to compare parametric data, while χ^2 tests were used to undertake analyses of categorical data. Given the low numbers in some MHP groups, MHPs were grouped into psychiatrists, psychiatric nurses and allied MHPs.

Qualitative analysis

For qualitative data, a thematic analysis (Braun & Clarke, 2006) was conducted by two of the researchers (L.C., P.T.M.). Analysts read all transcripts. One of the researchers (L.C.) extracted themes that assessed the lived experience and impact of the most distressing SU suicide experienced by MHPs. Initial codes were produced by following a line-by-line analysis of acquired free-text data, with repeated ideas or experiences noted. A second analysis by L.C. and P.T.M. was then conducted at the broader level of themes which were reviewed and analysed individually, facilitating the identification of underlying themes. Finally, discussions amongst the full research team were conducted and consensus was subsequently reached on all themes.

Results

Quantitative data: MHP demographics and supports for MHPs following SU suicide

Demographic data pertaining to MHPs are detailed in Table 1. Most responses were attained from inpatient psychiatric nurses (n = 84, 47.0%), the mean level of years of experience working in mental health was 12.60 (s.D. = 8.81) years, and training in suicide risk assessment was completed (before SU suicide) by 137 (76.5%) participants. MHPs who had experienced a SU suicide were more likely to be male [$\chi^2(1, N = 179) = 4.45, p = 0.035$], over 40 years of age [$\chi^2(1, N = 178) = 5.64, p = 0.018$], and work in the discipline of general adult psychiatry [$\chi^2(1, N = 179) = 14.58, p = 0.024$]. No difference was noted in the rates of experiencing a SU suicide between the different MHP groups [$\chi^2(2, N = 178) = 1.74, p = 0.419$].

Support following a SU suicide was offered by management to 23 (17.7%) MHPs and, when offered, was taken up by 15 (65.2%) of these MHPs. Informal support from colleagues was availed of by 71.1% of MHPs.

Quantitative data: method of SU suicide and mental health diagnosis of SU

Demographic and clinical data pertaining to the SU whose suicide caused the greatest distress for the MHPs are detailed in Table 2. Hanging was the most commonly reported method reported by MHPs employed by SUs in their suicide (n = 39, 47.0%). The most common mental health diagnosis was recurrent depressive disorder (n = 43, 53.8%), and 27(32.5%) of SUs had a previously known history of self-harm.

Quantitative data: impact of SU suicide on MHPs

Personal impact of SU suicide on MHPs

The three most common emotions reported by MHPs relating to the personal impact of a SU suicide were sadness (n = 66, 79.5%), shock (n = 62, 74.7%) and surprise (n = 57, 68.7%). These emotions predominantly lasted less than 6 months (sadness = 79.0%, shock = 89.7%, surprise = 94.3%); however, some individuals continued to experience these emotions for more than 12 months after the SU suicide (sadness = 9.7%, shock = 6.9%, surprise = 3.8%).

Female MHPs reported greater levels of personal sadness as a result of SU suicide [$\chi^2(3, N=83)=8.27$, p=0.041], with 23.1% (n=12) compared to 3.2% (n=1) of males reporting this having a major personal impact. Older MHPs were more likely to report a greater degree of sadness [$\chi^2(3, N=83)=10.6$, p=0.014] and grief [$\chi^2(3, N=83)=9.34$, p=0.025] than their younger colleagues (see Supplementary Data, Table 6, for further elaboration of these findings). Professional group affiliation, gender of SU, or site of SUs suicide were not associated with a statistically significant differential impact on the MHPs (Table 3).

Professional impact of SU suicide

Heightened awareness of risk differed by MHP professional group affiliation [$\chi^2(6, N=83) = 13.73$, p = 0.033], with nurses reporting higher awareness post-SU suicide than doctors or AHPs. Other factors commonly noted by MHPs following a SU suicide included reduced professional confidence (66.7%), fears of negative publicity (54.2%), litigation (49.4%) and burnout (47.6%) (see Table 4). Previous formal training in suicide risk assessment was associated with a reduced level of burnout (self-assessed) having a major impact on MHPs (25% v. 4.5%) [$\chi^2(3, N=82)=9.51$, p = 0.023] (see Supplementary Data, Table 6).

No other demographic or clinical factors including age, gender or professional group of MHP, age or gender of SU, site or method of SU suicide impacted statistically on any of these factors.

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Variables	Experienced a SU suicide $(n = 83)$	Have not experienced a SU suicide (<i>n</i> = 96)
Gender (<i>n</i> , %)		
Male	31 (37.3)	22 (22.9)
Age (years) (<i>n</i> , %)		
<40	29 (34.9)	51 (53.1)
Professional group (<i>n</i> , %)		
Consultant Psychiatrists	9 (10.8)	3 (3.2)
Non-Consultant Hospital Doctors	6 (7.4)	13 (13.7)
In-Patient Psychiatric Nurses	40 (48.2)	44 (46.3)
Community Mental Health Nurses	13 (15.7)	10 (10.5)
Psychologists	4 (4.8)	10 (10.5)
Social Workers	3 (3.6)	9 (9.5)
Occupational Therapists	7 (8.4)	4 (4.2)
Other Allied Health Professionals ^a	1 (1.1)	2 (2.1)
Mental health discipline $(n, \%)$		
General Adult Psychiatry	55 (66.3)	50 (52.1)
Psychiatry of Later Life	7 (8.4)	9 (9.4)
Child and Adolescent Psychiatry	7 (8.4)	26 (27.1)
Rehabilitation Psychiatry	10 (12.0)	8 (8.3)
Other Specialities ^b	4 (4.9)	3 (3.1)
Formal training in risk assessment ^c $(n, \%)$	- ()	
STORM	51 (61.4)	42 (43.8)
ASIST	18 (21.7)	23 (24.0)
Safe-Talk	6 (7.2)	5 (5.1)
No	16 (19.3)	26 (27.1)
Clinical experience of MHPs $(n, \%)$	(111)	
<10 years	38 (52.1)	58 (69.0)
10–20 years	24 (32.9)	22 (26.2)
> 20 years	11 (15.0)	4 (4.8)
Supports offered or availed of following a service user	()	- ()
suicide (<i>n</i> , %)		
Offered formal support from management		
Yes	23 (17.7)	
No	60 (72.3)	
Availed of formal support offered by management	00 (72.0)	
Yes	15 (65.2)	
No	8 (34.8)	
Reported that they availed of support from colleagues	0(010)	
Yes	59 (71.1)	
No	24 (28.9)	

SU, service user; ASIST, Applied Suicide Intervention Skills Training; STORM, Skills Training on Risk Management.

^a Includes counsellors, and other therapists (data missing n = 1 from 'Have not experienced a SU suicide').

^b Includes liaison psychiatry, addiction psychiatry and intellectual disability psychiatry.

^c Twenty-six individuals attained training with more than one assessment method.

Qualitative results: thematic analysis

In total, 79 participants who had experienced a SU suicide provided qualitative free-text responses, with most responses from inpatient psychiatric nurses followed by community mental health nurses. Thematic analysis of enriched qualitative data yielded five major themes: (1) personal distress, (2) professional distress, (3) professional development, (4) changes in professional practice and (5) support (see Table 5).

Personal distress

Respondents described greater levels of distress dependent upon SUs personal circumstances, with distress being described as greater where the SU was **Table 2.** Demographic data of service user (SU) detailed as dying by suicide

Table 3. Personal impact of service user suicide on mental health

 professionals (MHPs)

Variables	n (%)
Gender	
Male	39 (47.0)
Female	44 (53.0)
Age (years) ^a	
<26	21 (25.6)
26–40	32 (39.0)
41-60	20 (24.4)
>60	9 (11.0)
Primary psychiatric diagnosis (reported by	
participants) ^b	
Recurrent depressive disorder	43 (53.8)
Schizophrenia or schizo-affective disorder	15 (18.7)
Bipolar disorder	6 (7.5)
Personality disorder ^c	10 (12.5)
Psycho-active substance use disorder	2 (2.5)
No formal or known psychiatric diagnosis	4 (5.0)
Method of suicide	
Hanging	39 (47.0)
Drowning	17 (20.5)
Medication overdose	13 (15.7)
Weapon use	4 (4.8)
Jumping from a height or into traffic	5 (6.0)
Other violent deaths ^d	5 (6.0)
History of previous deliberate self-harm	
Yes	27 (32.5)
No	56 (67.5)
Time since SU suicide (years)	
1–5	43 (52.4)
6–10	18 (22.0)
>11	21 (25.6)
Treatment location at time of suicide	
Inpatient	31 (37.3)
Outpatient	52 (62.7)

^a Missing data (n = 1).

^b Missing data (n=3).

^cEmotionally unstable personality disorder of borderline type was the diagnosis given for all but one case.

^d Other violent deaths include self-laceration, asphyxiation and electrocution.

either an adolescent or young adult or where they were a mother of young children. MHPs also described greater levels of distress when they reported that they had a close relationship with the SU or their family member(s). Some MHPs described feelings of guilt pertaining to the SU suicide believing they should have recognised that the SU was at risk of suicide.

Professional distress

Several MHPs described initially feeling shocked that the SU had died by suicide. On some occasions, this

Variables	No impact [n (%)]	Some impact [<i>n</i> (%)]	Quite an impact [n (%)]	Major impact [n (%)]
General	8 (9.7)	46 (55.4)	20 (24.1)	9 (10.8)
Preoccupation with the suicide	35 (42.2)	38 (45.8)	5 (6.0)	5 (6.0)
Sense of guilt	29 (34.9)	42 (50.7)	8 (9.6)	4 (4.8)
Self-blame	34 (41.0)	37 (44.6)	8 (9.6)	4 (4.8)
Sadness	17 (20.5)	30 (36.1)	23 (27.7)	13 (15.7)
Disturbed sleep	41 (49.4)	29 (34.9)	7 (8.4)	6 (7.2)
Low mood	58 (69.9)	17 (20.5)	4 (4.8)	4 (4.8)
Anxiety	53 (63.9)	23 (27.7)	4 (4.8)	3 (3.6)
Shame	66 (79.5)	11 (13.3)	4 (4.8)	2 (2.4)
Grief	37 (44.6)	30 (36.1)	11 (13.3)	5 (6.0)
Fear	50 (60.2)	24 (28.9)	5 (6.0)	4 (4.8)
Surprise	26 (31.3)	28 (33.7)	16 (19.3)	13 (15.7)
Shock or disbelief	21 (25.3)	28 (33.7)	17 (20.5)	17 (20.5)
Anger	41 (49.4)	27 (32.5)	11 (13.3)	4 (4.8)
Inadequacy	47 (56.6)	27 (32.5)	3 (3.6)	6 (7.2)
Reduced confidence	35 (42.2)	38 (45.8)	7 (8.4)	3 (3.6)
Irritability at home	57 (68.7)	20 (24.1)	4 (4.8)	2 (2.4)
Anhedonia ^a	58 (72.5)	17 (21.3)	1 (1.3)	4 (5.0)
Betrayal ^a	62 (77.5)	11 (13.8)	5 (6.3)	2 (2.5)
Disgust at self ^a	66 (81.5)	11 (13.6)	1 (1.2)	3 (3.7)
Disgust at patient ^a	61 (78.2)	12 (15.4)	3 (3.8)	2 (2.6)
Difficulty with spiritual practice ^a	69 (84.1)	11 (13.4)	0 (0.0)	2 (2.4)

^a Item not answered by all MHPs. Percentages are reported for those who answered.

related to their opinion that the SU had improved from a therapeutic point of view prior to their suicide. Adverse professional sequelae described, included reduced self-confidence in managing other SUs with suicidal ideation. Distress was described as accentuated where there had been greater levels of personal investment (longevity or intensity of contact) by the MHP, with the SU and/or their family. Some MHPs stated they believed that some suicides were potentially preventable had the SU more actively engaged in treatment.

Professional development

After the SU suicide, many MHPs described a heightened awareness of the risk of SU suicide and described engaging more frequently in undertaking both formal risk assessments and informal risk assessments (i.e. verbally enquiring about suicidal ideation) on a more regular basis. MHPs also described deciding to attend further training in risk assessment as a consequence of the SU suicide.

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Table 4. Professional impac	of service user suicide on mental h	<i>nealth professionals (MHPs)</i>
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Variables	No impact [<i>n</i> (%)]	Some impact $[n (\%)]$	Quite an impact $[n (\%)]$	Major impact [n (%)]
General	1 (1.2)	37 (44.6)	37 (44.6)	8 (9.6)
Heightened awareness of risk	1 (1.2)	20 (24.1)	39 (47.0)	23 (27.7)
Decreased confidence ^a	27 (33.3)	41 (50.6)	9 (11.1)	4 (4.9)
Avoidance of high risk patients	62 (74.7)	17 (20.5)	3 (3.6)	1 (1.2)
Increased desire to take time off work	59 (71.1)	19 (22.9)	4 (4.8)	1 (1.2)
Increased desire to change jobs	59 (71.1)	12 (14.5)	6 (7.2)	6 (7.2)
Increased desire for early retirement	68 (81.9)	8 (9.6)	2 (2.4)	5 (6.0)
Fear of negative publicity	38 (45.8)	33 (39.8)	9 (10.8)	3 (3.6)
Fear of litigation	42 (50.6)	23 (33.7)	8 (9.6)	5 (6.0)
Feeling of burnout ^a	43 (52.4)	23 (28.0)	9 (11.0)	7 (8.5)

^a Item not answered by all MHPs. Percentages are reported for those who answered.

Changes in professional practice

MHPs noted themselves to be both recipients and providers of greater support to colleagues after a SU suicide. Some described greater skills in supporting SUs and their family members where SUs experienced suicidal ideation. MHPs also described in some cases that either they or their colleagues were less distressed by subsequent SU suicides.

Support

Several MHPs described either a lack of awareness of how to attain or an unavailability or formal support following a SU suicide. MHPs expressed a preference for a range of supports including most frequently debriefing. Other supports suggested by MHPs included counselling sessions, informal support from a manager, the option of leave (time-off) from work after a SU suicide and further training. Training was most commonly desired in the areas of suicide risk assessment and in various aspects of litigation. Sources of additional stress following a SU suicide included subsequent investigations relating to the SU suicide and a perceived 'blame culture', from clinical and managerial staff both of which were stated to adversely impact on collegiality and increase levels of distress.

Discussion

This study evaluates and compares the personal and professional impact of SU suicide in a wide range of MHPs across different mental health specialities. Findings across different MHPs were largely consistent and were not significantly impacted by a range of demographic or clinical factors.

Clinical factors pertaining to the most distressing SUs suicide noted in this study are predominantly consistent with demographic and clinical data pertaining to data relating to all SU suicides, with, for example, the method of suicide most commonly employed being hanging (Lin et al. 2010; Casey et al. 2012), and approximately half of SUs having a diagnosis of recurrent depressive disorder (Hirokawa et al. 2012; Kielty et al. 2014). Female SUs (53%) were, however, over-represented in this study compared to existing suicide data, with an approximate 4:1 male to female ratio of SU suicides (who were attending mental health services) previously described in Ireland (Kielty et al. 2014) and other (but not all) jurisdictions (Hepp et al. 2010; Hirokawa et al. 2012). This quantitative finding of greater distress associated with females who die by suicide is supported, at least to some extent, by qualitative data suggesting that a SU suicide where the SU was a parent (particularly where female) of young children was associated with greater levels of personal distress, a finding previously noted in studies examining the impact of the most distressing SU suicide for consultant psychiatrists (Landers et al. 2010), although gender of the parent was not specified in that study.

The most common factors causing distress after a SU suicide from quantitative data for MHPs across multiple disciplines were sadness, shock and surprise and these factors have also previously been noted (Yousaf et al. 2002; Landers et al. 2010; Wurst et al. 2011). In this study, sadness post-SU suicide was more prevalent in female and older MHPs. Previous research has demonstrated increased distress (but not sadness in particular) post-SU suicide in females relative to males (Grad et al. 1997; Hendin et al. 2004; Gaffney et al. 2009); however, this is not a universal finding (Castelli Dransart et al. 2014). Data pertaining to age of MHPs and levels of distress experienced have previously yielded inconsistent results (Chemtob et al. 1988; Rothes et al. 2013), with greater distress more frequently noted in younger MHPs (Chemtob et al. 1988). In this study,

Thematic domain	Sub-theme	Quote
Personal distress	1. Services users personal circumstances	The patient's life, trauma and personal story was very, very sad. She had experienced extreme trauma and difficult life circumstances as a result. She was very young (19 years) and this was difficult to come to terms with. I felt there was very little from a therapy perspective that could be done at the point in time I met her (Psychologist) It also involved the death of children whom I felt responsibility for the deaths (Social Worker)
	2. Therapeutic bond	I invested a lot of myself in working towards her recovery (Nurse)
	3. Guilt	I felt guilty that I did not notice something was wrong before I left (Nurse)
Professional distress	1. Shock	It came as a shock because I thought he was starting a new phase in his life, agreeing to take medications and responding well (Nurse)
	2. Therapeutic relationship	I had worked very closely with this man for three years (Consultant Psychiatrist)
	3. SU engagement with treatment	Superficial engagement, didn't feel like I got an insight into how she really was (Nurse)
Professional development	Awareness	I think that it promotes reflection as to what you did, what you didn't do, what you could have done, why you did what you did and how to improve, should a scenario like this occur again (Nurse)
Changes in professional practice	1. Reactivity	I have learned to ask service users openly about self-harm or suicidal intent (Occupational Therapist)
-	2. Collegiality	The senior OT who was my supervisor gave good support as did the other OT staff. Other members of the MDT also supported each other (Occupational Therapist)
	3. Desensitisation	I feel that the patient suicide I discussed has encouraged me to emotionally detach more from my work. I now remind myself that all I can do is my best, with the time and resources I have available to me. I do feel that nurses can become desensitized to suicide and can forget the catastrophic ripple effect suicide can leave on the whole community(Nurse)
Support	1. Availability	None available/None suggested (Community Mental Health Nurse)
	2. Blame culture	A useful debrief can only occur in the absence of fear from blame or litigation as a result of honest disclosure (Social Worker)
	3. Desired support	Immediately after (<i>the SU suicide</i>) –1:1 support from professional colleague to simply discuss what has happened and how feel about before going back to work
		Aftermath–Reflective practice, formal case review (NCHD)

Table 5. Major thematic domains with sub-themes and examples of free-text analysis

OT, Occupational Therapist; MDT, multi-disciplinary team; SU, service user; NCHD, Non-Consultant Hospital Doctor; Nurse, In-patient psychiatric nurse.

being >40 years of age was associated with greater distress, however, this needs to be interpreted cautiously, as MHPs were asked to consider retrospectively the SU suicide that was most distressing which in many cases was, several years earlier, and recall bias pertaining to the levels of distress experienced historically may also impact on the accuracy of this finding.

Qualitative data suggested that sadness, shock and surprise were accentuated where a close therapeutic bond had been formed with the SU. This finding is consistent with some previous data noting that the strength of the emotional attachment with the SU has a significant association with the level of distress experienced by MHPs (Gulfi *et al.* 2010; Castelli Dransart *et al.* 2014). Guilt and self-blame were other factors frequently present (evident from both quantitative and qualitative data), which is consistent not just with data pertaining to MHPs (Alexander *et al.* 2000; Yousaf *et al.* 2002; Gulfi *et al.* 2010; Landers *et al.* 2010) but also data pertaining to health professionals working with SUs who have died by suicide outside mental health services including in hospice (Fairman *et al.* 2014) and general practice settings (Kendall & Wiles, 2010). Qualitative data in this study noted that self-blame was associated with a preoccupation with the SU suicide. Such a preoccupation has previously been noted with non-consultant hospital doctors after the suicide of a SU (Dewar *et al.* 2000), with this study demonstrating that similar cognitions are present across different grades of doctors and other MHPs.

This study clearly demonstrated that SU suicide impacts MHPs professional practice, in both a positive and negative fashion. One of the most significant findings from this study from both the quantitative and qualitative results was a heightened awareness of the risk of suicide for other SUs, a finding consistent with some previous research (Bohan & Doyle, 2008; Rothes et al. 2013; Awenat et al. 2017). This increased awareness was most evident in the psychiatric nurse group and may perhaps relate to the duration of time they spend with individual SUs who are actively unwell, compared to other MHPs. This increased awareness of risk following a SU suicide has additionally been associated with an improvement in risk assessment (Gulfi et al. 2016). All MHP groups in this study expressed an interest in either attaining training or attaining additional training in risk assessment suggesting that such training should potentially be included as a standard part of MHP educational programmes on an on-going basis. An additional potential reason to have ongoing risk assessment training for all MHPs relates to a previous study (Awenat et al. 2017), which noted that a lack of risk assessment training was associated in part with MHPs having more defeatist attitudes when working with SUs expressing suicidal ideation. Some MHPs in this study described having greater skills in relating to both SUs expressing suicidal ideation and their family members after experiencing a SU suicide. Additionally, some MHPs noted that they were able after a SU suicide to support MHP colleagues when a SU they were treating died by suicide. Thus, professional development after a SU suicide was clearly demonstrated for some MHPs across a range of MHP disciplines in this study. Similarly, a qualitative study of social workers by Sanders et al. (2005), report that in addition to distress following SU suicide, some social workers reported that they had learned to respond more sensitively to SUs who have suicidal ideation.

Deleterious professional effects of a SU suicide noted both from quantitative and qualitative data included reduced confidence when working with SUs expressing suicidal ideation, which is largely consistent with previous data (Cryan *et al.* 1995; Landers *et al.* 2010; Gulfi *et al.* 2016). In addition, feeling distressed when engaging with SUs expressing suicidal ideation was particularly evident from qualitative analysis. These emotions have been noted previously (Bohan & Doyle, 2008; Awenat *et al.* 2017) and the term 'secondary trauma' to reflect significant distress experienced has previously been utilised (Hubbart *et al.* 2017). Whilst not particularly evident in this study, 'compassion fatigue' (Figley, 2002) related to MHPs becoming desensitised as a result of engaging with SUs experiencing trauma and subsequent 'burnout' have previously been noted and merit further investigation in future studies (Newell *et al.* 2010; Sansbury *et al.* 2015; Hubbart *et al.* 2017; Branson, 2018).

Whilst nearly all MHPs availed of informal peer supports after SU suicide, a lack of formal supports from senior management was noted. A previous study in the same jurisdiction relating only to consultant psychiatrists noted that no formal supports were attained after a SU suicide (Landers et al. 2010), and thus this study demonstrated that formal supports were offered and attained by some MHPs. Some MHPs suggested that some formal supports might potentially reduce personal and professional distress including in particular debriefing and a period of leave from work if particularly distressed. Debriefing usually involves a short intervention (often, a single session), that is delivered shortly after individuals experience a significant trauma and is designed to alleviate acute distress and, thus, reduce the risk of the individual experiencing ongoing distress (Wessely & Deahl, 2003; Mendes, 2015); however, limited supportive evidence is currently available for this intervention (Wessely & Deahl, 2003; Tuckey, 2007; Hawker et al. 2011; Tuckey & Scott, 2014). Formal supports relating not just to risk assessment training, but also to managing potential legal complications (presenting in a court setting) were suggested by MHPs across different groups and disciplines and were deemed to be particularly relevant given the perception of a 'blame culture' and 'fear of litigation'. Thus, this study suggests that in addition to informal support, formal supports should be offered to all MHPs who experience a SU suicide, with the MHP being able to discuss with management the type of support that may potentially alleviate the personal or professional distress they are experiencing. Indeed, vicarious resilience (working with trauma leading to greater personal and professional growth) has been noted, particularly where there is strong organisational support for staff and a culture of psychological self-care is part of the organisational milieu (Sansbury et al. 2015; Killian et al. 2017).

Strengths of the study include, the use of the same questionnaire across several MHP groups, and different psychiatric specialities, the use of both quantitative and qualitative analysis allowing elaboration and/or clarification of psychometric data a relatively large number of respondents. The number of respondents in this study is similar to or greater than a number of previous studies (Dewar *et al.* 2000, n = 103; Halligan & Corcoran, 2001, n = 103; Pilkinton & Etkins, 2003, n = 197; Landers *et al.* 2010, n = 178), however some studies have previously included larger numbers of respondents (Alexander *et al.* 2000, n = 247; Gaffney

et al. 2009, n = 447). There are a number of limitations with this study. First, the response rate was modest at 35.2%, but higher than a previous study examining the same topic (Gaffney et al. 2009) (21.2%) and is consistent with another recent study from the same region examining multiple MHPs opinions in relation to involuntary detention (Georgieva et al. 2017). Second, the study used a non-validated questionnaire, however, multidisciplinary input was utilised in the creation of the questionnaire which was based on previous data with both quantitative and qualitative analysis subsequently conducted. Third, the questionnaire was not piloted before use in this study and no reliability or validity studies have been conducted in relation to this questionnaire. Fourth, the retrospective nature of the study potentially leads to recall bias, particularly as MHPs were asked to quantify the duration of their distress following SU suicide. Consequently, we were particularly cautious not to focus extensively on the duration of time individuals' experienced professional or personal distress in this study. Fifth, MHPs completed the questionnaire based on the SU suicide that was most distressing to them and thus adverse sequelae may be over-represented. Sixth, in some cases, formal diagnostic testing was not undertaken on SUs by the MHPs surveyed and it is probable that some of the retrospective diagnoses provided may be inaccurate. Finally, some quantitative data require caution with interpretation given the relatively low numbers of individuals in some categories examined, and consequently Supplementary Data, Table 6, has been added providing greater detail on reported study findings.

Conclusions

SU suicide in this study was associated with personal and professional distress for the majority of MHPs across a range of MHP groups and psychiatric disciplines with sadness, shock, guilt, reduced selfconfidence and emotional blunting frequently noted. For most MHPs, these negative emotions and cognitions were relatively short in duration, although some MHPs continued to experience distress for greater than 12 months. Ongoing, professional training in risk assessment and interventions designed to reduce the risk of self-harm such as Dialectical Behaviour Therapy (Linehan, 2015) could enhance MHPs ability to support SUs with suicidal ideation and colleagues who experience a SU suicide. Our results demonstrate that formal supports were rarely offered to MHPs after SU suicide and this study suggests that a culture and clear pathway of formal support for MHPs to ascertain the most appropriate individualised support dependent on the distress they experience would be optimal. MHP induction and educational programmes that could potentially advise MHPs on these supports are recommended.

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Authors' contributions

All authors participated in the design of the study, data attainment and critical review of the manuscript.

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Formal financial support was not obtained for the study. The Health Service Executive (HSE) agreed for staff to participate in the study and provided materials used to complete the study.

Conflicts of interest

None.

Ethical standards

Ethical approval was obtained for the study from the HSE. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008.

Supplementary material

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