

## SECTION IIA. REPLICATION AND EXTENSION OF MARLATT'S TAXONOMY

# Relapse research and the Reasons for Drinking Questionnaire: a factor analysis of Marlatt's relapse taxonomy

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### Abstract

*A factor analysis (n = 183) of Marlatt's relapse taxonomy as assessed by the Reasons for Drinking Questionnaire (RFDQ) (see Appendix I, this article) was conducted using a heterogeneous alcohol treatment sample. Results indicated that the predominant factor was negative emotions. The second factor consisted of social pressure and positive emotions, and a third factor consisted of physical withdrawal, wanting to get high, testing control, substance cues and urges to drink. Each of the 13 categories in the Marlatt taxonomy loaded on one of the three factors. Scores on the first factor for the first and second lapses were correlated. The same held true for the other two factors. The negative emotions factor was positively related to blood alcohol level on the first day of the lapse, the lapse duration (in days), and occurrence of a second lapse (even when controlling for alcohol dependence). The negative emotions factor in turn was related to client reports of alcohol dependence, trait anger, and depression (all positively). Women scored higher on the first factor, and men scored higher on the second factor. The third factor was inversely related to the number of days of abstinence preceding the lapse. Taken together, these analyses illustrate that different precipitants occur together, suggesting that clients might productively be trained in the use of specific relevant coping skills to address potential relapse precipitants. Focusing on the third RFDQ factor may be particularly important in the early stages of abstinence. The importance of anger and depression management during alcohol treatment is also highlighted by these results.*

### Introduction

In their seminal work on antecedents to relapse, Marlatt and his colleagues used content analysis of open-ended questions to classify lapse precipi-

itants reported by clients engaging in different types of addictive behaviors, including alcoholism, drug abuse, and overeating (Cummings, Gordon & Marlatt, 1980; see also Marlatt, this

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Table 1. *The Marlatt taxonomy*


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I.	Intrapersonal–environmental determinants
(A)	Coping with negative emotional states
(1)	Coping with frustration and/or anger
(2)	Coping with other negative emotional states
(B)	Coping with negative physical–physiological states
(1)	Coping with physical states associated w/prior substance use
(2)	Coping with other negative physical states
(C)	Enhancement of positive emotional states
(D)	Testing personal control
(E)	Giving in to temptations or urges
(1)	In the presence of substance cues
(2)	In the absence of substance cues
II.	Interpersonal determinants
(A)	Coping with interpersonal conflict
(1)	Coping with frustration and/or anger
(2)	Coping with other interpersonal conflict
(B)	Social pressure
(1)	Direct social pressure
(2)	Indirect social pressure
(C)	Enhancement of positive emotional states

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Adapted from Marlatt, 1985a, pp. 80–81.

issue). Their efforts led to the development of the three-tier taxonomy outlined in Table 1 (Marlatt, 1985a). In applying this taxonomy, a distinction is first made between Intrapersonal–Environmental determinants and Interpersonal determinants. Intrapersonal–Environmental determinants are separated into five categories, and Interpersonal determinants into three categories. Five of these eight categories are further subdivided (e.g. direct vs. indirect social pressure), resulting in 13 categories at the most specific level. Through use of this taxonomy, each account of a lapse is classified into a single category according to several classification guidelines (see Marlatt, 1985a, pp. 80–81).

Heather, Stallard & Tebbutt (1991) identified three potential drawbacks of the Marlatt taxonomy. First, they suggested that allowing only one category to be assigned per lapse precludes evaluation of other potentially contributing factors. Secondly, Heather *et al.* proposed that the “bump up” rule arbitrarily favored some categories over others. According to this rule, if two categories seem equally contributory, the one appearing first in the taxonomy is given priority. As such, categories higher up in the taxonomy are favored (e.g. negative emotional states over enhancement of positive emotional states). Finally, the category of temptations and urges is further penalized in that it is to be used only when the description of the lapse does not fit any

of the other categories. Taken together, Heather *et al.* argued that these features of the taxonomy guidelines lead to negative emotional states being overemphasized and temptations and urges underemphasized (see Longabaugh *et al.* elsewhere in this issue for more general concerns regarding the study of relapse precipitants).

Other investigators have devoted attention to measuring lapse precipitants using multi-dimensional rather than categorical strategies, addressing in part the above concerns. Litman *et al.* (1983), for example, used alcoholics’ responses to an interview and a sentence completion questionnaire to construct the Relapse Precipitants Inventory (RPI). Using this measure, respondents identify the extent to which a variety of situations represent threats to their sobriety. Another measure, the Inventory of Drinking Situations (IDS) (Annis, 1982), was developed from the Marlatt eight-category taxonomy to identify situations in which individuals have drunk heavily in the past year. The RPI and the IDS have been shown to be useful for identifying situations in which clients may have greater risk for relapse, but neither instrument assesses actual specific lapses.

Rather than ask respondents to generalize across a particular time period, as with the RPI or the IDS, Heather *et al.* (1991) asked heroin users to characterize their most recent lapse using a series of items that summarized each of the

13 Marlatt lapse categories. Single items were used, except for other negative emotional states (IA2) and other interpersonal conflict (IIA2), which had three and two items, respectively. Participants rated on an 11-point Likert scale the contribution of each reason to their most recent lapse. In addition, Heather *et al.* asked the open-ended questions used by Marlatt and colleagues (Marlatt & Gordon, 1985) and rated these descriptions according to the classification guidelines. Heather *et al.* found differences between the categorical and multidimensional assessments. When the categorical system was used, most lapses (69%) were classified as stemming from two of the categories (negative emotions [IA] or social pressure [IIB]), while other categories were marginally represented (e.g. categories IC, ID and IIC each were coded less than 5% of the time). In contrast, when precipitants were assessed multi-dimensionally, ratings on the 13 categories were more evenly distributed, with means ranging from 1.9 to 5.7. Heather *et al.* highlighted that substance-related temptations and urges obtained the highest mean rating.

The Heather *et al.* (1991) study suggests that multi-dimensional assessment is a more sensitive way to measure lapse precipitants than is the categorical system that has been used by Marlatt and his colleagues. However, the Heather *et al.* research studied only heroin abusers. In the present study, we sought to extend the Heather *et al.* research to alcohol lapse and employed the Reasons for Drinking Questionnaire (RFDQ) (see Appendix I). The RFDQ is the Heather *et al.* measure adapted by Westerberg, Miller & Heather to assess lapses to alcohol rather than heroin.

A number of specific questions regarding alcohol lapse were focused on in the present study. The first concerns a comparison of categorical and multi-dimensional assessment of lapse precipitants. The second concerns identifying which lapse precipitants occur together. The third question concerns whether lapse precipitants are related to other lapse parameters, such as the number of preceding days of abstinence, the blood alcohol concentration (BAC) on the first day of the lapse and the length of the lapse in days. Findings along these lines could have specific treatment implications (e.g. identifying which precipitants are related to more severe relapses). A fourth question examines whether lapse precipitants predict whether another lapse

will occur, and whether lapse precipitants are consistent over time. Finally, we examined whether lapse precipitants were related to demographic characteristics and whether lapse precipitants could be predicted by baseline measures. Together these questions sought to explore the meaningfulness of examining lapse precipitants.

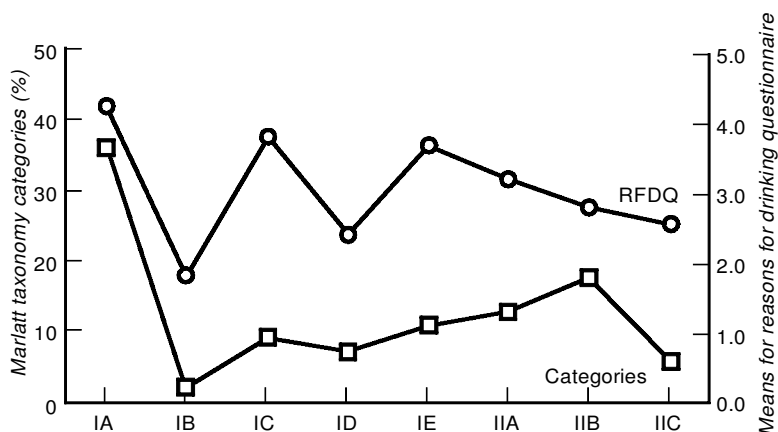
## Method

### Subjects

Participants were 263 clients initiating alcoholism treatment in either Buffalo, NY ( $n = 142$ ) or Albuquerque, NM ( $n = 121$ ), the two sites in the Relapse Replication and Extension Project (RREP) that collected RFDQ data. See Lowman *et al.* (1996, this issue) for further information on the RREP. Most (58%) of the 263 participants were recruited from outpatient or day alcohol treatment programs with the remaining clients recruited from inpatient programs (42%). The sample was 62% male with an average age of 33.8 ( $SD = 8.1$ ). Fifty-three per cent identified themselves as white, 22% as African American and 17% as Hispanic. Forty-two per cent were single, 24% married or cohabiting, and 33% divorced or separated. Most (63%) had graduated from high school and the average length of education was 12.3 years ( $SD = 2.2$ ). Sixty per cent of the sample was unemployed. The average score for the sample on the Alcohol Dependence Scale (Skinner & Allen, 1982) was 25.8 ( $SD = 10.0$ ). All participants met DSM-III-R criteria for alcohol abuse or dependence, as assessed by the Diagnostic Interview Schedule (Robins *et al.*, 1988).

### General procedures

Following treatment entry, prospective participants were briefly interviewed to insure that they met study requirements. See Lowman *et al.* (this issue) for a discussion of RREP inclusion and exclusion criteria. After signing the consent form, participants were interviewed and completed a questionnaire packet. Participants were interviewed at baseline and bimonthly over the following 12 months. In Albuquerque all interviews were conducted in person, while in Buffalo clients were interviewed over the telephone at months 2, 4, 8 and 10, and in person at baseline and months 6 and 12.



**Figure 1.** Categorical (Marlatt taxonomy) and continuous (Reasons for Drinking Questionnaire) assessment of lapse precipitants. The Marlatt taxonomy categories are presented in terms of the percentage of times in which that precipitant category was coded, and the Reasons for Drinking Questionnaire data are presented as means.

### Measures

Alcohol consumption was measured using the Form 90 interview (Miller, 1995), a calendrical approach to collecting data on daily alcohol consumption. The Brief Drinker Profile (Miller & Marlatt, 1984) was used to gather information on demographics, employment status and alcohol use history, and was administered at baseline only. The RREP Relapse Interview (RI) was employed to replicate Marlatt's original method for collecting data on relapse precipitants. Responses to four open-ended questions were coded by raters trained to use Marlatt's classification rules. Raters' consensus codes were used in the results reported below.

Questionnaires administered at baseline included the Alcohol Dependence Scale (ADS), a 29-item measure of the alcohol dependence syndrome (Skinner & Allen, 1982); the Beck Anxiety Inventory (BAI) measuring severity of anxiety (Beck *et al.*, 1988); the Beck Depression Inventory (BDI) measuring severity of depression (Beck & Steer, 1987); and the trait anger scale of the State-Trait Anger Expression Inventory (STAXI, Spielberger, 1991). The Reasons for Drinking Questionnaire (RFDQ) (see Appendix I) was administered at each follow-up if a first drink had occurred as operationalized by the Relapse Interview. Further information on common instruments used in the RREP multi-site study, including the Form 90, RI, ADS, BAI, BDI and STAXI, and a discussion of methods implemented to maximize the accuracy of self-reported drinking behavior

are provided by Lowman *et al.* (this issue). Appendix B (this issue) provides Marlatt's relapse taxonomy scoring rules as adapted for the RREP study.

### Results

One hundred and ninety-one participants (73% of the sample) consumed at least one drink during the 12 months following treatment initiation. Scores on the RFDQ were available for 183 (96%) of these participants. In order to compare the continuous measures provided by the RFDQ with the Marlatt categories, RFDQ items were averaged (where warranted) to produce means for the eight Marlatt categories. The distributions of the lapse precipitants using the Marlatt taxonomy categorization (in percentages) and the mean scores for these categories using the RFDQ are displayed in Fig. 1. As can be seen, the categorical system exaggerates the frequency of intrapersonal negative emotions for alcohol lapses as Heather *et al.* (1991) reported for heroin lapses.

As Marlatt & Gordon (1985) cautioned against viewing any single precipitant as the only cause of a lapse, we sought to identify concurrent lapse precipitants by conducting a factor analysis of the 16 RFDQ ratings (maximum likelihood extraction, direct oblimin rotation, and a factor loading cut-off of 0.40). This analysis yielded three factors accounting for 49% of the variance (see Table 2). The first factor consisted primarily

**Table 2.** *Reasons for Drinking Questionnaire Factors (n = 183)*

		Factor		
		1	2	3
% of variance		26	14	9
Intrapersonal-environmental				
IA1	angry or frustrated	0.77		
IA2	sad	0.72		
	anxious or tense	0.55		
	bored			
IB1	withdrawal symptoms			0.51
IB2	ill or in pain	0.47		
IC	to get high			0.48
ID	testing control			0.45
IE1	substance cues			0.55
IE2	non-cued urges			0.63
Interpersonal				
IIA1	angry or frustrated	0.93		
IIA2	worried or tense	0.88		
	others were critical	0.55		
IIB1	offered a drink		0.67	
IIB2	saw others drinking		1.00*	
IIC	good time w/others		0.65	
Mean		3.5	2.8	3.1
SD		2.8	3.1	2.1

\*The factor loading for IIB2 is actually 0.996 and rounded to 1.00.

of negative emotions from both intrapersonal and interpersonal domains. The second factor consisted of social pressure and positive emotions with others. The third factor exhibited the greatest heterogeneity and included physical withdrawal, wanting to get high, testing control, substance cues and urges to drink. Although unusual for an oblimin solution, none of the items loaded on more than one factor. The second and third factors were significantly correlated ( $r = 0.36$ ,  $p < 0.01$ ) but the first factor was not significantly correlated with the second or third factor (respective  $r$ s =  $-0.10$  and  $0.10$ ). Of particular note, items reflecting each of Marlatt's 13 categories loaded on one of the three factors.

Correlational analyses were conducted to assess the relationship between the three RFDQ factors and three relevant lapse parameters: number of days of abstinence preceding the lapse, BAC on the first day of the lapse and length of the lapse (in days). Higher scores on the negative emotions factor were related to higher BACs on the first day of the lapse and longer lapses,  $r$ s =  $0.22$  and  $0.27$ ,  $p < 0.01$ . The urges/withdrawal factor was inversely related to the number of days of abstinence preceding the

lapse ( $r = -0.16$ ,  $p < 0.05$ ). The second RFDQ factor was not correlated with the three lapse parameters.

The preceding analyses were conducted on the first lapse reported during the 12-month follow-up. In 85% of the cases, comparable data were available for a subsequent, second lapse. A logistic regression analysis, with all three factors entered in one step, indicated that the negative emotions factor assessed at the first lapse was positively related to a second lapse occurring ( $-2 \log$  likelihood  $\chi^2 = 145$ ,  $df = 179$ ,  $p = 0.97$ ; goodness of fit  $\chi^2 = 180$ ,  $df = 179$ ,  $p = 0.46$ ; model  $\chi^2 = 11.5$ ,  $df = 3$ ,  $p < 0.01$ ;  $b = 0.19$ ,  $p = 0.03$ ). Correlational analysis revealed scores on the first factor for the first and second lapses were correlated. The same held true for the other two factors ( $r$ s ranging from  $0.44$  to  $0.51$ ). Correlations between the three factor scores within the first lapse were lower; the highest interfactor correlation (between factors 2 and 3) was  $0.36$ . The highest correlation between the factor scores within the second lapse was  $0.48$  (again between factors 2 and 3).

The Marlatt taxonomy was developed using "chronic male alcoholics treated in an inpatient

setting" (Marlatt, 1985a, p. 75). Given the greater heterogeneity of the present sample, we examined whether the three RFDQ factors varied across demographic variables. Towards this end, three regression analyses were conducted using demographic characteristics (reflecting gender, age, ethnicity, marital status, employment status and income) as predictor variables for each of the RFDQ factor scores. Results indicated that being female was associated with a higher score on the negative emotions factor [ $F(10,172) = 1.90, p < 0.05; \beta = 0.24, p < 0.01$ ]. The other two regression analyses indicated that the demographic variables were unrelated to the second and third RFDQ factors.

A second set of regression analyses was conducted with a two-fold purpose. First, we wondered if gender would be related to the first RFDQ factor if alcohol-related and affect-related variables were also taken into account. Secondly, we wondered if baseline levels of anger, anxiety, and depression would predict subsequent scores on the negative emotions RFDQ factor. (Baseline variables theoretically related to scores on the other two RFDQ factors were not available.) Towards these ends, a regression analysis was conducted using the negative emotions RFDQ factor score as the dependent variable. In the first step of the regression, alcohol-related variables were entered (ADS score, percentage of days intoxicated during baseline and years since first intoxication). In the second step, trait anger, BAI and BDI scores were entered. In the last step, the one demographic variable that had predictive power—gender—was entered. For the sake of comparison, parallel regressions were conducted using the other two RFDQ factors as dependent variables.

Alcohol Dependence Scale scores were positively related to scores on the first RFDQ factor [ $F(3,179) = 3.35, p < 0.05; \beta = 0.21, p < 0.05$ ]. Results from the second step revealed that trait anger and depression added additional predictive power; each was positively related to the first RFDQ factor [ $F$  change (3,176) = 8.67,  $p < 0.0001$ ;  $\beta$ s for BDI and anger = 0.28, 0.20 respectively; both  $ps < 0.01$ ]. After the alcohol and affect-related variables had been entered into the regression equation, gender still proved to be a significant predictor of the negative emotions factor [ $F$  change (1,175) = 7.56,  $p < 0.01$ ;  $\beta = 0.19, p < 0.01$ ]. For the second RFDQ factor, alcohol and affect-related variables did not

significantly predict scores. However, when gender was then entered into the regression equation, it did have predictive value [ $F$  change (1,175) = 4.23,  $p < 0.05$ ;  $\beta = -0.16, p < 0.05$ ], indicating that scores on this factor were higher for men than women. For the third RFDQ factor, all three steps of the regression were non-significant.

In the preceding analyses, the ADS was used as a control variable and was found to be related to the negative emotions RFDQ factor. As noted earlier, the negative emotions factor was found to be related to higher BACs, longer lapses and the occurrence of a second lapse, using correlational analyses and logistic regression. These analyses were reconducted using the ADS as a control variable, and these relationships remained significant (respective  $rs = 0.18$  and  $0.25$  and  $b = 0.20$ ;  $ps < 0.05$ ).

## Discussion

The preceding analyses on alcohol lapses support the utility of Marlatt's taxonomy when it is used as a multi-dimensional construct rather than mutually exclusive categories. When a continuous assessment was used instead of a categorical one, the disparities in the relative frequency of categories diminished. This finding is similar to that reported by Heather *et al.* (1991) in a sample of heroin users. Further, lapse precipitants appeared to occur together in specific ways.

Negative emotions, interpersonal conflict and negative physiological states (not associated with withdrawal) tended to occur together, and for several reasons this factor appears to be the most important. This factor accounted for the most variance in the RFDQ factor solution and also was positively related to the peak BAC on the first day of the lapse, the duration of the lapse in days, and the occurrence of a subsequent lapse (even when ADS scores were taken into account). These results suggest that this cluster of lapse precipitants may facilitate the continuation of the drinking episode, possibly via the abstinence violation effect (Marlatt, 1985b). Marlatt hypothesized that if a person experienced conflict, guilt and/or self-blame regarding an initial lapse this would lead him/her to drink even more. The negative emotions factor is characterized by anger, frustration, sadness and anxiety. Guilt and self-blame could also be present. Ad-

ditionally, these results suggest that if negative emotions are associated with one lapse, this makes future lapses more likely. It is possible that lapses associated with negative emotions may be associated with negative attributions, making future lapses more likely.

The negative emotions factor was predicted by ADS scores. Since alcohol dependence influences functioning in a myriad of ways, the relationship between alcohol dependence and negative affect lapses is likely to be complex. Depression and anger were positively related to negative affect lapses after the variance accounted for by alcohol dependence was removed. The relationship between depression and anger and negative affect lapses suggests the predictive validity of these variables. Along these lines, the roles of depression and anger in alcohol dependence have been well-documented (e.g. Hesselbrock, Hesselbrock & Workman-Daniels, 1986; Brown & Schuckit, 1988; Schuckit & Monteiro, 1988; Potter-Efron & Potter-Efron, 1991).

The second RFDQ factor consisted of direct and indirect social pressure and positive emotions in an interpersonal context. The third RFDQ factor indicated that cues, urges and withdrawal symptoms occurred together in precipitating lapses. This factor was most salient during the early phase of abstinence. All three factors predicted the later occurrence of that same factor if a subsequent lapse occurred.

After the effects of alcohol-related and affect-related variables were taken into account, relationships between gender and the RFDQ factors were evident. Women scored higher on the negative emotions factor, and men scored higher on the social pressure and positive emotions factor. The first two factors of Litman *et al.*'s (1983) Relapse Precipitant Inventory parallel the first two factors of the RFDQ. Similar to our results, Litman *et al.* reported a trend for women to find unpleasant mood states more threatening to their abstinence than did men, while men found external events (e.g. parties, celebrations, others drinking) and euphoria significantly more threatening than did women.

The factor analysis in the present study is exploratory rather than confirmatory. However, support for this factor solution is provided by Cannon *et al.*'s (1990) principal components analysis of the IDS. As noted earlier, the IDS was developed by constructing items reflecting

the eight categories of the Marlatt taxonomy. Cannon *et al.*'s first factor consisted of unpleasant emotions and conflicts with others. Their second factor consisted of pleasant emotions, pleasant times with others and social pressure. The third factor consisted exclusively of items assessing testing personal control. Thus, the IDS factors are comparable to the RFDQ factors, except that the third factor of the RFDQ extracted in the present sample is more complex. Similarly, even though the Relapse Precipitant Inventory is not based on the Marlatt taxonomy, Litman *et al.*'s (1983) first two RPI factors parallel the first two RFDQ factors, while their third factor, "lessened cognitive vigilance", differs from the third RFDQ factor.

The preceding interpretations must be viewed in light of two potential limitations. First, as Heather *et al.* (1991) pointed out, these results are bound by the degree to which the items of the RFDQ adequately capture the meaning of the Marlatt categories. This may vary across categories. The second issue, a much more complex one, is the degree to which the client can accurately retrospectively identify the precipitants of the lapse. This question is relevant to much of the research on relapse precipitants. Hodgins, el-Guebaly & Armstrong (1995) recently examined retrospective bias. They discovered a statistical trend ( $p=0.12$ ) for moods preceding a lapse to be labeled as worse if reported after the lapse rather than before. However, there are difficulties in interpreting this finding. Since these individuals were asked to report on their moods weekly, their reports might be less subject to retrospective bias. On the other hand, the prospective mood ratings were made on average 2.4 days before the lapse. If individuals lapse in response to negative moods, one would expect that they are lapsing when their moods are worst. If their mood is assessed 2 days before the lapse, they could be in a better mood at that point. Taken together, Hodgins *et al.* (1995) draw our attention to retrospective bias while illustrating the need for improved methodology (more frequent assessments) to examine this potential confound.

In summary, these analyses support the usefulness of Marlatt's taxonomy when assessed as a multi-dimensional construct, and these analyses have several specific treatment implications. The findings of Marlatt and colleagues (Cummings *et al.*, 1980) indicating the importance of negative

emotions in the etiology of lapses are supported by the negative emotions RFDQ factor derived with the present sample. Moreover, the importance of each of the 13 categories is supported in that each category loads on one of the three RFDQ factors. Since these analyses illustrate that different precipitants occur together, modifying relapse prevention treatments accordingly may improve treatment efficacy. For example, clients could be provided with "packages" of coping skills to counter the concurrent precipitants. The organization of coping skills into empirically derived packages may also help clients to assimilate these skills into their repertoires. Focusing on the third RFDQ factor may be particularly important when a significant duration of abstinence has not yet been achieved. The first RFDQ factor may be especially important regarding treatment outcome because it is related to more severe lapses and subsequent lapses. Since depression and anger were related to the first factor, anger and depression management might be a focus during alcoholism treatment. The importance of examining past lapse precipitants is suggested by moderate intrafactor correlations over time for the RFDQ. In the present study, baseline predictors for the second and third RFDQ factors were not identified, suggesting a focus for future research. Finally, it will be of interest to ascertain whether the constellation of lapse precipitants found here for alcohol generalizes to other drugs, since ratings for different high-risk situations are known to vary across substances (Ross *et al.*, 1994).

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## APPENDIX I

### The Reasons for Drinking Questionnaire

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#### Background

Heather, Stallard & Tebbutt (1991) addressed what

they regarded to be two deficiencies in the Marlatt & Gordon (1985) relapse taxonomy. Specifically, they asserted that allowing more than one type of relapse precipitant to be assessed, and obtaining subject ratings of the importance of relapse categories would lead to different and possibly more accurate categorization of relapse precipitants. To this end, they constructed 16 self-report, retrospective questions that were designed to assess the 13 categories and subcategories of the Marlatt relapse taxonomy, and administered this instrument to 93 heroin users. With the exception of two categories (IA2 and IIA2), one item represented each possible relapse precipitant. In order to assess relapse precipitants in those with alcohol problems, Westerberg & Miller adopted this approach for the multi-site Relapse Replication and Extension Project (RREP) by adding a set of instructions, rewording the questions to refer to alcohol consumption rather than heroin use, and reformatting the items and the rating scale for easier use. The resulting scale was named the "Reasons for Drinking Questionnaire" (RFDQ), specifically avoiding the word "relapse" in the title. The RFDQ was used in both the University of New Mexico (UNM) and Research Institute on Addictions (RIA) RREP studies (Zywiak *et al.*, this issue). The RFDQ is presented overleaf. The distribution of RFDQ responses for research participants in the combined UNM and RIA samples is presented in Fig. 2 which also indicates the specific Marlatt category represented by each RFDQ question.

#### References

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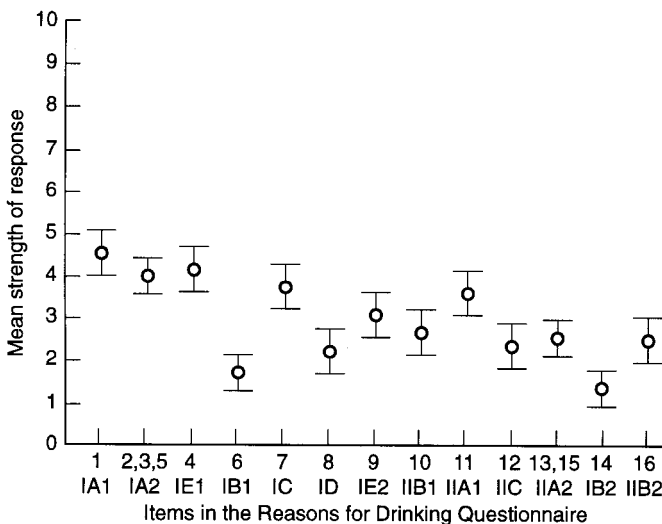


Figure 2. Mean item response (95%CI): Reasons for Drinking Questionnaire (n = 191).

Reasons for Drinking

The following 16 questions are a list of reasons why people may begin to drink again after they have given up drinking. Please rate these on how important each reason was for you *when you began to drink again*. Rate each reason on the scale provided. Zero (0) means the reason was *not at all important* for you, and ten (10) means that the reason was *very important* for you.

Circle only one number for each item

Reasons for beginning to drink	Not at all important										Very important
(1) I felt angry or frustrated, either with myself or because things were not going my way	0	1	2	3	4	5	6	7	8	9	10
(2) I felt bored	0	1	2	3	4	5	6	7	8	9	10
(3) I felt anxious or tense	0	1	2	3	4	5	6	7	8	9	10
(4) When I saw alcohol I just had to give in	0	1	2	3	4	5	6	7	8	9	10
(5) I felt sad	0	1	2	3	4	5	6	7	8	9	10
(6) I felt ill or in pain or uncomfortable because I wanted a drink.	0	1	2	3	4	5	6	7	8	9	10
(7) I was in a good mood and felt like getting high	0	1	2	3	4	5	6	7	8	9	10
(8) I wanted to see what would happen if I tried one drink	0	1	2	3	4	5	6	7	8	9	10
(9) I just felt tempted to drink out of the blue and went off to get a drink	0	1	2	3	4	5	6	7	8	9	10
(10) Someone offered me a drink	0	1	2	3	4	5	6	7	8	9	10
(11) I felt angry or frustrated because of my relationship with someone else	0	1	2	3	4	5	6	7	8	9	10
(12) I was with others having a good time and we felt like getting drunk together	0	1	2	3	4	5	6	7	8	9	10
(13) I felt worried or tense about my relationship with someone else	0	1	2	3	4	5	6	7	8	9	10
(14) I felt ill or in pain but this was not due to withdrawal from alcohol	0	1	2	3	4	5	6	7	8	9	10
(15) I felt others were being critical of me	0	1	2	3	4	5	6	7	8	9	10
(16) I saw others drinking	0	1	2	3	4	5	6	7	8	9	10

Any other reason? Please print it here: