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MANEMOS. The Trigger Situations Inventory. Validation of a measure helping relapse prevention in the treatment of alcohol use disorders

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Abstract

Background: Relapse Prevention (RP) is a cognitive-behavioural approach that aims to identify situations at high risk of relapse and to support patients with alcohol use disorders (AUDs) in developing coping strategies for the maintenance of desired behavioural changes. Based on this framework, the present study aims to assess and validate the psychometric properties of the MANEMOS, a 24-item inventory of alcohol relapse triggering situations.

Methods: The internal consistency and factor structure of the MANEMOS were analysed in a sample of 313 (27.7% women) in-patients and out-patients, attending alcohol treatment programmes in Italian addiction treatment facilities. *Results:* The results support the internal reliability and validity of the measure. A confirmative factor analysis has revealed the existence of eight distinct dimensions measuring relapse risk situations: namely, Pleasant emotions, Unpleasant emotions, Craving, Conflicts with others, Occasions, Social Pressure, Personal Control, and Physical Discomfort. The patients' assessment of the riskiness of the situation showed some significant differences depending on gender and on type of treatment received. *Conclusions:* The findings indicate that MANEMOS is a valid measure for identifying and reflecting on patients' high relapse risk situations. This easy and flexible assessment measure may have important implications for prevention and clinical intervention.

Keywords: Alcohol use disorder; Relapse prevention; Trigger situations inventory; Validation

Introduction

Alcohol use disorder (AUD) is a chronic lapsing and relapsing condition where the combination of pharmacological (Goh & Morgan, 2017) and psychosocial interventions represents the mainstay of its treatment (Drake et al., 2008). Among the psychosocial interventions, Relapse Prevention (RP) (Marlatt & Gordon, 1985) is a strategy for reducing the likelihood and severity of relapse following the cessation or reduction of alcohol consumption (Menon & Kandasamy, 2018). The reoccurrence of problem behaviour after a quit attempt is defined as a "lapse," which could eventually lead to continued transgressions until reaching a level similar to before quitting, defined as a "relapse" (Steckler et al., 2013).

The high relapse rate in AUD's patients has led to the incorporation of relapse prevention strategies as a component in most treatment practices (Donovan & Witkiewitz, 2012). Originally

described as an aftercare program for people who received treatment for an AUD (Marlatt & Gordon, 1985), the term relapse prevention has since been used as an umbrella term for any skills-based intervention that addresses relapse risk factors, risky situations, and effective managing strategies. The focus on the relapse prevention represents the attempt to better understand the treatment process of change, by concentrating on the question of how and why an individual may return to his/her pre-treatment, problematic behaviour (Witkiewitz & Marlatt, 2007). From this perspective, relapse prevention is intended as a cognitive-behavioural approach aiming to identify high-risk situations for relapse and to support individuals with AUDs in developing coping strategies for the maintenance of desired behavioural changes (Menon & Kandasamy, 2018). With patients with AUDs, this approach pursues two specific aims: preventing a first lapse and maintaining abstinence and providing lapse management strategies if a lapse occurs (Marlatt & George, 1984). One of the central objectives of this approach is to prepare patients to become protagonists in their own therapy, providing them with the tools to continue their therapeutic programme of “self-control”, after a path of formal addiction treatment. In short, the RP aims to help patients to increase their own skills for the management of the health risk situations linked to certain lifestyles, in particular the abuse of alcohol or drugs (Marlatt & George, 1998). The opportunities to understand what is happening and consequently act in order to avoid a return to maladaptive patterns of behaviours are very limited. Indeed, high relapse rates have been estimated among addicted individuals in treatment, with 65-70% of abstinent subjects relapsing within one year (Kadam et al., 2017).

Although there is still no widely agreed definition of relapse in AUD, it is now generally accepted that it is a process rather than a specific event (Menon & Kandasamy, 2018) and thus scholars have tried to determine the factors contributing to this occurrence (Sliedrecht et al., 2019). By making a distinction between “lapse” and “relapse,” Marlatt (1996) succeeded in overcoming the dichotomous “all-or-nothing” view of relapse as promoted by the dominant disease model paradigm of abstinence-based alcoholism treatments.

Specifically, Marlatt and Gordon (1985) proposed to identify the different steps of the relapse process, to analyse risk-situations and to address the implications in the history of each patient. In this perspective, a renewed contact with the substance is considered a 'slip' or 'lapse' (Moe et al., 2022) and this event is considered a crossroads in the patient's pathway: if accepted and analysed *per se* it can be considered an incentive to continue along the path of positive change, otherwise it is construed as an event that could lead to a damaging relapse (Moon & Lee, 2020). These authors spoke of the 'hidden background of the relapse' referring to apparently neutral situations, meaningful for the patients' history, leading them to take 'seemingly irrelevant decisions' that will expose them to 'high risk situations' (Menon & Kandasamy, 2018); these situations, if not faced, will trigger the process of relapse.

A high-risk situation is defined as an occurrence in which an individual's attempt to desist from a particular behaviour is threatened (Menon & Kandasamy, 2018; Razali & Madon, 2021). Marlatt's taxonomy research identified three broad categories of antecedents of initial lapses that accounted for 75% of all such episodes, namely negative emotional states, interpersonal conflicts and social pressure (Marlatt, 1996; Marlatt & Gordon, 1985). Then, the Relapse Replication and Extension Project (RREP) replicated and extended Marlatt's taxonomy of relapse precipitants for assessing high risk relapse situations (Lowman et al., 1996). This cross-site study, using Marlatt's taxonomic system, allowed to collect more details on the patient's specific relapse experience, and it has revealed new classes of situational precipitants that may emerge in different patient populations (Longabaugh et al., 1996). Thus, Donovan (1996) recommended extending Marlatt's taxonomy to improve its overall reliability. Specifically, Longabaugh and colleagues (1996) suggested the development of a more multifaceted theory of relapse precipitants including many other components, such as characteristics of the person and situations that concur to potentiate or diminish the likelihood of a relapse. For instance, additional significant situations such as positive emotional states, craving, negative physical conditions, and verification of the capacity for self-control (Dimeff & Marlatt, 1998; Larimer et al., 1999) may contribute to the triggering of a relapse.

Instrument Development

The RP theoretical framework inspired the development of the MANEMOS inventory (Authors, 2012), a scale potentially useful for improving relapse prevention strategies in clinical settings. For more than ten years, the scale has been used in several Residential Care and Outpatient Services in northern Italy, with different types of patients with AUDs, receiving a favorable clinical impression by practitioners in daily routine. Specifically, clinicians observed that the inventory allows to discriminate among different patterns of consumption (e.g., recreational, social, self-medication, coping with emotions or specific physical conditions), and to target specific – and, thus, more effective – actions for individuals and/or groups, both in prevention and treatment. In general, clinical settings, both in Italy and worldwide, could benefit from this easy-to-use measure, which helps patients to identify their risk situations, enabling them to maintain the desired behavioral change.

The scale was built starting from a literature research in the field of cognitive-behavioural strategies for the prevention of alcoholism (Allen et al., 1996; Brady & Sonne, 1999; Donovan & Marlatt, 2013; Larimer & Marlatt, 2004; Marlatt et al., 2002; Marlatt, 1996; Marlatt & Donovan, 2005). Specifically, MANEMOS aims at identifying alcohol relapse triggering situations, as already accomplished by the Drug-Taking Confidence Questionnaire (DTCQ) for substance use (Sklar et al., 1997). The DTCQ was developed in the Canadian context and is a 50-item self-report questionnaire aimed to assess anticipatory coping self-efficacy over eight categories of relapse risk situations. Based on Marlatt's taxonomy (Marlatt & Gordon, 1985), the DTCQ includes eight dimensions: Unpleasant Emotions, Physical Discomfort, Pleasant Emotions, Testing Personal Control, Urges to Use, Conflict with Others, Social Pressure, and Pleasant Times with Others. Patients report how confident they are that they can resist the urge to drink heavily or to engage in any use of a particular drug in each of the 50 situations on a scale ranging from 0 (not at all

confident) to 100 (very confident). Starting from the items contained in the DTCQ, some changes were made to define the specific MANEMOS version for alcohol. More precisely, one dimension (“Fun”) was removed, a new facet (“Occasions”) was introduced, and some sentences were completely reformulated in order to make them more meaningful and comprehensible (e.g., complex sentences, sentences containing aspects that could be attributed to other dimensions). Subsequently, MANEMOS was administered to a sample of 50 mixed control subjects/patients with AUDs to collect comments on the linguistic/semantic content (Authors, 2012). The resultant 24-item scale (as will be described in more detail below) asks subjects to indicate the frequency of alcohol consumption in the proposed situations. The score shows a profile of prevalence of consumption in one or more of 8 specified dimensions: Pleasant Emotions, Unpleasant Emotions, Craving, Conflict with Others, Occasions, Social Pressure, Personal Control, and Physical Discomfort. The Social Pressure, Occasions and Conflict with Others dimensions represent areas in which alcohol consumption is reactivated by external cues. The consumption is supported by the external environment because the substance is offered or used in company, or the relational situation reactivates the urge to drink. The Pleasant Emotions dimension represents the pursuit for the modulation of positive emotions. Emotions may be either too intense, and thus to be extinguished with alcohol, or they may already be positive, and therefore alcohol intake occurs to amplify the well-being already experienced. In this case, then, use is associated either with the pleasant emotions provoked by the chemical action of the substance or as a complement to an already present feeling of well-being. In addition, testing Personal Control represents an intrapersonal/environmental determinant in which the person drinks to verify his/her own ability to engage in moderate alcohol use and/or to test the effects of the treatment. The last area, Physical Discomfort, concerns some self-care modalities. In this case, alcohol is clearly used as a relief. It is used to alleviate the perception of pain, both physical (including withdrawal) and emotional (Marlatt, 1996).

In general, the evaluation of clinicians who have been using the MANEMOS with patients for several years supports its usefulness in the clinical setting. Therefore, to overcome the discrepancy between the favourable clinical impression of the Inventory on the one hand and the lack of empirical validation on the other, the current study aims to investigate the psychometric properties of the MANEMOS Inventory in an Italian sample of patients with AUDs.

Materials and methods

Participants and Procedure

Participants were invited to fill in the MANEMOS scale via the Internet, by accessing a dedicated website with registration. The questionnaire was drafted in Italian. Ten Residential Care Services and fourteen Outpatient Services administered the inventory to their patients with AUDs. Data were collected from addiction workers (doctors, psychologists, educators and social workers) over six years of working with patients, from 2013 to 2019. Informed consent was obtained from all participants. Ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments were followed in conducting the study.

A total of 313 patients in treatment for AUDs (27.7% women) completed the questionnaire by accessing the website. The average age of the participants was 42.11 ($SD = 10.55$, range 19-75) years. Regarding the type of treatment attended, the majority ($n = 159$, 50.8%) were in residential treatment, 35.5% ($n = 111$) were in outpatient treatment, and finally 13.7% ($n = 43$) did not adhere to a specific treatment but were enrolled through a driving licence commission programme.

Measures

The MANEMOS inventory consists of 24 items on eight dimensions (see Appendix for the complete list). The questionnaire describes 24 situations or events in which people consume alcohol. The introduction is as follows: “The aim is to identify your main Risk Situations in order to

cope with them better, referring to the period in which you drank. Mark on the horizontal line how much you are at risk of drinking on a scale ranging from 0 (*I am not at risk at all*) to 100 (*I am very much at risk of drinking in that situation*).

Data Analysis

First, the internal reliability and item-total correlations of each dimension of the MANEMOS were examined. Internal reliability $> .70$ (Cronbach & Meehl, 1955) and item-total correlations $> .30$ (Green & Lewis, 1986) are considered acceptable. Second, a confirmatory factor analysis (CFA) was performed in order to confirm the structure of the scale. As suggested by Hu and Bentler (1999), model fit of CFA was assessed using the Comparative Fit Index (*CFI*, cut off value close to .90), the Tucker-Lewis Index (*TLI*, cut off value close to .90), Root Mean Square Error of Approximation (*RMSEA*, cut off value close to .06), and the standardized root-mean-square residual (*SRMR*, cut off value close to .08). In particular, we examined the one- and the eight-dimensional solutions.

Results

As can be seen in Table 1, all eight dimensions of MANEMOS showed acceptable internal reliabilities, except for Craving. However, each dimension consisted of three items, so the value can be considered appropriate. The means of the dimensions showed that the participants declared that they are more at risk of drinking when celebrating or meeting people (Occasions), but also when they do not want to disappoint the expectations of others or because they feel urged to drink (Social Pressure). Consumption associated with alleviating a physical discomfort or problem (in terms of shaking and/or nausea or other physical symptoms) proved less frequent. Concerning gender differences (see Table 1), men scored higher than women in drinking due to happiness and euphoria (Pleasant Emotions), the urge to use and thinking about drinks (Craving), and finally the attempts to test their own approach to alcohol (Personal Control). The type of treatment received also showed some significant differences. Specifically, patients who did not receive any specific treatment

scored lower than those who received outpatient or residential treatments on Pleasant Emotions, Unpleasant Emotions, Craving, Conflict with Others, Social Pressure (only compared to residential treatment patients), and Personal Control. People in a residential treatment scored higher on Physical Discomfort as compared to those in outpatient treatment and those who received no specific treatment.

-----INSERT TABLE 1 ABOUT HERE-----

In order to assess the structure of the scale, two distinct confirmatory factor analyses were performed on the scale items. We started with the eight-dimensional structure. The model fit the data in a near to acceptable way: $\chi^2(224) = 571.95$, $CFI = .91$, $TLI = .89$, $RMSEA = .07$, $SRMR = .05$. Modification indexes suggested correlating four error terms and the resulting model fits had improved: $\chi^2(220) = 503.21$, $CFI = .93$, $TLI = .91$, $RMSEA = .06$, $SRMR = .05$. These correlations were all theoretically plausible given the very similar meaning and formulation of the associated items: “When I go out to lunch or dinner” (Occasions) with “When I’m invited to someone’s house and I’m offered a drink” (Social Pressure); “When I have tremors and/or nausea” with “When I want to stay awake, be more alert or more energetic” (both on Physical Discomfort); “When I see something that casually reminds me of drinking” (Craving) with “When a good thing that happened comes to mind” (Pleasant Emotions); and “When I get excited about something” (Pleasant Emotions) with “When I think about how good it feels to drink” (Craving). All the factor loadings were significant at $p < .001$. The one-dimension model with the same four correlations between error terms did not fit the data in an acceptable way: $\chi^2(76) = 1745.78$, $CFI = .61$, $TLI = .57$, $RMSEA = .14$, $SRMR = .11$.

Discussion

The aim of the present research was to analyse the psychometric properties and the dimensionality of the MANEMOS scale. Firstly, the reliability coefficients of the single dimensions are acceptable (also in light of the small number of items for each dimension). Secondly, the CFA

confirms the existence of eight distinct dimensions measuring relapse risk situations. With regard to gender differences, in agreement with Lau-Barraco and colleagues (2009), male with AUDs are more at risk of relapse than female with AUDs when they experience positive affects (Pleasant Emotions) and social pressure to drink (Craving). In contrast to other studies (Annis & Graham, 1995) a non-significant effect was found for females in relation to the tendency to relapse more frequently in negative affect situations (i.e., negative emotions, conflict with others). Moreover, men tend to test their personal control more than women probably due to their lower anxiety about risk-taking behaviours.

In addition, some interesting results emerged considering the type of treatment received. Firstly, spending pleasant time with others (Occasions) and Social Pressure – namely, a certain pressure to drink which is generated in social interactions – are the most dangerous triggering situations for patients irrespective of the type of treatment attended. These findings are consistent with the culture of drinking of Mediterranean or ‘wet’ areas (Allamani et al., 2000), whereby people exhibit a liberal attitude towards alcohol and its consumption (Allamani et al., 2014), drinking in social situations is culturally justified and practised, while abstinence is rarely contemplated. In this type of social and cultural context, people who have completed a treatment are often torn between feeling marginalised (because they cannot drink) and feeling the failure of the treatment (because they cannot control themselves). Therefore, a return to social drinking, i.e., to a controlled mode of alcohol intake (which is precisely what the group of friends and family expects of them), is more difficult for them than practising complete abstinence from alcohol. Furthermore, for these people – who have already experienced problems with alcohol and addiction and lack emotional-relational skills – socialization should be ‘taught from scratch’ because recreational groups could have iatrogenic effects. In this regard, several scholars prefer to use the concept of “recovery” instead of relapse with patients with AUDs (Hagman et al., 2022; Sliedrecht et al., 2022), where recovery refers to an ongoing dynamic process of behavior change characterized by relatively stable improvements in health, wellness, and self-directed living (Witkiewitz et al., 2020). In that broad

definition, abstinence is considered as only one example of health improvements. Focusing interventions on individual strengths, resilience, and engagement in self-care and well-being, could help patients and the community at large to counteract the social stigma of addiction. Indeed, defining recovery by complete abstinence reinforces the misconception that alcohol is harmful only for individuals with AUD and that they can never drink again, subjecting them to marginalization and social pressure.

Secondly, patients who did not undergo specific treatment but only came to the services for brief interventions (e.g., certification for the driving licence) seem to feel less at risk of drinking in all trigger situations except for those described by the Occasions dimension. As this group of patients does not have a diagnosis of addiction, it may be assumed that they have a lower general level of problems with alcohol, which is probably used just as a social lubricant and not as a mood modulator. However, these patients have nevertheless developed a certain degree of alcohol-related problems with consequences such as driving licence suspension or driving accidents. Therefore, some of these patients may be less aware of the risks than others just because they are not under treatment and so less motivated to change.

Thirdly, patients attending the residential facilities were found to be more at risk of drinking due to physical symptoms (e.g., withdrawal symptoms). As these patients adhere to more intensive treatment plans, they are likely to have a more severe diagnosis and/or a condition that has become chronic over time and, consequently, are the ones who need more restraint.

This study has some limitations that should be considered. Firstly, the results are based on a single sample and are limited with respect to the context in which the research was conducted. It would be interesting to test the tool with individual suffering from AUDs in different sociocultural settings. Secondly, the questionnaire was administered without being combined with other scales measuring similar constructs and this limited the study of its validity. Future studies should further investigate the discriminant validity of these dimensions on other variables and on other types of populations. Thirdly, Witkiewitz and Marlatt (2007) proposed a broadly reconceptualization of the

original cognitive-behavioral relapse model including intra-individual proximal variables such as those investigated by MANEMOS (e.g., craving), and more distal factors, such as family history, social support and degree of dependence on alcohol that MANEMOS has not covered. Likewise, Sliedrecht and colleagues, in their systematic review (2019), identified other relapse factors (e.g., psychiatric co-morbidity, use of other substances, health, and self-efficacy or social support protective factors) than those covered by MANEMOS. In future lines, the extension of the trigger situations inventory could be useful to deepen the “systemic relapse processes” (Hunter-Reel et al., 2009), as well as the protective factors that are predictive of treatment outcomes.

Conclusions

Notwithstanding the above-mentioned limitations, the results presented in this article support the usefulness of MANEMOS. The scale can be applied in a variety of contexts, with different types of alcohol consumers and constitutes the basis for clinical considerations on diverse drinking patterns. Discriminating among different patterns of consumption (recreational, social, self-care, coping with emotional or physical situations), allows targeted actions to be taken for individuals and/or groups, whether for prevention or treatment purposes. As far as prevention is concerned, one possible implementation involves self-administration of the scale by accessing the website, from which a risk assessment of one’s own consumption behaviour can be obtained, with advice on risk situations to watch out for, and from which one can contact qualified services (e.g., Addiction Services, Self-help groups) for further information. Moreover, prevention practitioners could recommend the scale to consumers in order to problematize the substance use and the situations in which it occurs. In addition, investigating the expectations of psychoactive effects (e.g., support to stress, management and modulation of emotions, social pressure, support to negative physical conditions) and knowing the situations in which consumption is more likely to be concentrated

enable the planning and implementation of interventions aimed at developing specific skills (e.g., social and life skills).

As far as treatment is concerned, the practitioner may propose the questionnaire to patients in treatment as part of the clinical RP work to develop higher self-efficacy to resist the urge to drink, decrease alcohol effect expectancies and strengthen coping strategies for situations at greater risk of relapse (Brown et al., 1998). Moreover, MANEMOS may be used in more specific work of functional analysis of consumer behaviour and for in-depth analysis in both group and individual work. Through group discussions, people may identify the various consumption patterns and common situations in which it occurs in the most unspeakable aspects, without judgments freezing the processing. On the other hand, treating consumption behaviour in individual sessions through MANEMOS may help to distinguish one's own specific patterns and characteristics of alcohol consumption, which represent the basis for developing highly individualised interventions. In such use, MANEMOS may thus help the diagnostic process, although further research in this field will be necessary. Those involved in relapse prevention are aware that alcohol is only one of the substances to be discussed during treatment. The behaviours in which difficulties can be expressed and the strategies that people adopt are varied, almost infinite, and are implemented with certain specific characteristics in each individual. Starting from the approach of the RP, however, it is always possible to analyse the common aspects of consumption, identify them, and better address alcohol use disorders.

Declaration of Interest

The authors report no conflicts of interest.

References

- Allamani, A., Voller, F., Kubicka, L., & Bloomfield, K. (2000). Drinking cultures and the position of women in nine European countries. *Substance Abuse, 21*(4), 231–247.
<https://doi.org/10.1080/08897070009511436>
- Allamani, A., Voller, F., Pepe, P., Baccini, M., Massini, G., & Cipriani, F. (2014). Italy Between Drinking Culture and Control Policies for Alcoholic Beverages. *Substance Use & Misuse, 49*(12), 1646–1664. <https://doi.org/10.3109/10826084.2014.913386>
- Allen, J., Lowman, C., & Miller, W. R. (1996). Perspectives on precipitants of relapse. *Addiction, 91*, S3–S4. <https://doi.org/10.1111/j.1360-0443.1996.tb02322.x>
- Annis, H. M., & Graham, J. M. (1995). Profile types on the Inventory of Drinking Situations: Implications for relapse prevention counseling. *Psychology of Addictive Behaviors, 9*, 176–182. <https://doi.org/10.1037/0893-164X.9.3.176>
- Authors. 2012. [Title omitted for blind review].
- Brady, K. T., & Sonne, S. C. (1999). The role of stress in alcohol use, alcoholism treatment, and relapse. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism, 23*(4), 263–271.
- Brown, S. A., Carrello, P. D., Vik, P. W., & Porter, R. J. (1998). Change in alcohol effect and self-efficacy expectancies during addiction treatment. *Substance Abuse, 19*(4), 155–167.
<https://doi.org/10.1080/08897079809511384>
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin, 52*, 281–302. <https://doi.org/10.1037/h0040957>
- Dimeff, L. A., & Marlatt, G. A. (1998). Preventing relapse and maintaining change in addictive behaviors. *Clinical Psychology: Science and Practice, 5*, 513–525.
<https://doi.org/10.1111/j.1468-2850.1998.tb00171.x>
- Donovan, D. M. (1996). Marlatt's classification of relapse precipitants: Is the Emperor still wearing clothes? *Addiction (Abingdon, England), 91 Suppl*, S131–S137.

- Donovan, D. M., & Marlatt, G. A. (2013). *Assessment of Addictive Behaviors, Second Edition*. Guilford Publications.
- Donovan, D., & Witkiewitz, K. (2012). Relapse prevention: From radical idea to common practice. *Addiction research & theory, 20*(3), 204-217.
<https://doi.org/10.3109/16066359.2011.647133>
- Drake, R. E., O’Neal, E. L., & Wallach, M. A. (2008). A systematic review of psychosocial research on psychosocial interventions for people with co-occurring severe mental and substance use disorders. *Journal of Substance Abuse Treatment, 34*(1), 123–138.
<https://doi.org/10.1016/j.jsat.2007.01.011>
- Goh, E. T., & Morgan, M. Y. (2017). Review article: pharmacotherapy for alcohol dependence—the why, the what and the wherefore. *Alimentary pharmacology & therapeutics, 45*(7), 865-882.
<https://doi.org/10.1111/apt.13965>
- Green, L. W., & Lewis, F. M. (1986). *Measurement and evaluation in health education and health promotion*. Mayfield Publishing Company.
- Hagman, B. T., Falk, D., Litten, R., & Koob, G. F. (2022). Defining recovery from alcohol use disorder: development of an NIAAA research definition. *American Journal of Psychiatry, 179*(11), 807-813. <https://doi.org/10.1176/appi.ajp.21090963>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Hunter-Reel, D., McCrady, B., & Hildebrandt, T. (2009). Emphasizing interpersonal factors: An extension of the Witkiewitz and Marlatt relapse model. *Addiction, 104*(8), 1281-1290.
<https://doi.org/10.1111/j.1360-0443.2009.02611.x>
- Kadam, M., Sinha, A., Nimkar, S., Matcheswalla, Y., & De Sousa, A. (2017). A Comparative Study of Factors Associated with Relapse in Alcohol Dependence and Opioid Dependence. *Indian*

Journal of Psychological Medicine, 39(5), 627–633.

https://doi.org/10.4103/IJPSYM.IJPSYM_356_17

- Larimer, M. E., & Marlatt, G. A. (2004). Relapse prevention: An overview of Marlatt's cognitive-behavioral model. In E. F. McCance-Katz & C. Westley, *Psychosocial Treatments* (pp. 11–28). Routledge.
- Larimer, M. E., Palmer, R. S., & Marlatt, G. A. (1999). Relapse prevention. An overview of Marlatt's cognitive-behavioral model. *Alcohol Research & Health: The Journal of the National Institute on Alcohol Abuse and Alcoholism*, 23(2), 151–160.
- Lau-Barraco, C., Skewes, M. C., & Stasiewicz, P. R. (2009). Gender differences in high-risk situations for drinking: Are they mediated by depressive symptoms? *Addictive behaviors*, 34(1), 68–74. <https://doi.org/10.1016/j.addbeh.2008.09.002>
- Longabaugh, R., Rubin, A., Stout, R. L., Zywiak, W. H., & Lowman, C. (1996). The reliability of Marlatt's taxonomy for classifying relapses. *Addiction (Abingdon, England)*, 91 Suppl, S73–S88.
- Lowman, C., Allen, J., Stout, R. L., & Group, T. R. R. (1996). Replication and extension of Marlatt's taxonomy of relapse precipitants: Overview of procedures and results. *Addiction (Abingdon, England)*, 91 Suppl, S51–S71.
- Marlatt, G. A. (1996). Taxonomy of high-risk situations for alcohol relapse: Evolution and development of a cognitive-behavioral model. *Addiction (Abingdon, England)*, 91 Suppl, S37–49.
- Marlatt, G. A., & Donovan, D. M. (2005). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors, 2nd ed* (pagg. xiv, 416). The Guilford Press.
- Marlatt, G. A., & George, W. H. (1984). Relapse prevention: Introduction and overview of the model. *British Journal of Addiction*, 79(3), 261–273. <https://doi.org/10.1111/j.1360-0443.1984.tb00274.x>

- Marlatt, G. A., & George, W. H. (1998). Relapse prevention and the maintenance of optimal health. In *The handbook of health behavior change, 2nd ed* (pp. 33–58). Springer Publishing Company.
- Marlatt, G. A., & Gordon, J. R. (1985). *Relapse prevention: Maintenance Strategies in the Treatment of Addictive Behaviors*. Guilford Press.
- Marlatt, G., Parks, G., & Witkiewitz, K. (2002). Clinical Guidelines for Implementing Relapse Prevention Therapy. *Behavioral Health Management Project*.
- Menon, J., & Kandasamy, A. (2018). Relapse prevention. *Indian Journal of Psychiatry, 60*(Suppl 4), S473–S478. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_36_18
- Moe, F. D., Moltu, C., McKay, J. R., Nesvåg, S., & Bjornestad, J. (2022). Is the relapse concept in studies of substance use disorders a ‘one size fits all’ concept? A systematic review of relapse operationalisations. *Drug and Alcohol Review, 41*(4), 743–758. <https://doi.org/10.1111/dar.13401>
- Moon, S. J. E., & Lee, H. (2020). Relapse to substance use: A concept analysis. *Nursing Forum, 55*(3), 523–530. <https://doi.org/10.1111/nuf.12458>
- Razali, A., & Madon, Z. (2021). High-risk situations of inclinations to relapse among former drug addicts: A descriptive analysis. *International Journal of Academic Research in Business and Social Sciences, 11*(6), 1140-1153. <http://dx.doi.org/10.6007/IJARBSS/v11-i6/10000>
- Sklar, S. M., Annis, H. M., & Turner, N. E. (1997). Development and validation of the drug-taking confidence questionnaire: A measure of coping self-efficacy. *Addictive Behaviors, 22*(5), 655–670. [https://doi.org/10.1016/s0306-4603\(97\)00006-3](https://doi.org/10.1016/s0306-4603(97)00006-3)
- Sliedrecht, W., de Waart, R., Witkiewitz, K., & Roozen, H. G. (2019). Alcohol use disorder relapse factors: A systematic review. *Psychiatry Research, 278*, 97–115. <https://doi.org/10.1016/j.psychres.2019.05.038>

- Sliedrecht, W., Roozen, H., de Waart, R., Dom, G., & Witkiewitz, K. (2022). Variety in alcohol use disorder relapse definitions: should the term “relapse” be abandoned? *Journal of Studies on Alcohol and Drugs*, 83(2), 248-259. <https://doi.org/10.15288/jsad.2022.83.248>
- Steckler, G., Witkiewitz, K., & Marlatt, G. A. (2013). Relapse and Lapse. In P. M. Miller (A c. Di), *Principles of Addiction* (pp. 125–132). Academic Press. <https://doi.org/10.1016/B978-0-12-398336-7.00013-9>
- Witkiewitz, K., & Marlatt, G. A. (2007). Modeling the complexity of post-treatment drinking: It's a rocky road to relapse. *Clinical Psychology Review*, 27(6), 724-738.
<https://doi.org/10.1016/j.cpr.2007.01.002>
- Witkiewitz, K., Montes, K. S., Schwebel, F. J., & Tucker, J. A. (2020). What is recovery? *Alcohol Research: Current Reviews*, 40(3), 1-12. <https://doi.org/10.35946%2Farcr.v40.3.01>

Table 1. Means, Standard Deviations, Psychometric Properties, Gender and Treatment Differences on each Dimension of the MANEMOS.

	<i>M</i>	<i>SD</i>	α	Inter-item <i>r</i> (range)	ANOVA Gender				ANOVA Type of Treatment				
					<i>M</i> women	<i>M</i> men	<i>F</i>	η^2	<i>M</i> out	<i>M</i> resid	<i>M</i> nons	<i>F</i>	η^2
Pleasant Emotions	24.61	23.98	.73	.48-.61	18.85	26.70	6.64**	.02	26.64 ^a	26.45 ^a	12.53 ^b	6.54**	.04
Unpleasant Emotions	39.27	29.06	.74	.50-.66	37.99	40.32	0.38	.01	43.93 ^a	41.47 ^a	19.15 ^b	13.14***	.08
Craving	24.36	24.46	.64	.41-.46	19.22	25.93	4.64*	.02	25.33 ^a	26.35 ^a	14.44 ^b	4.24**	.03
Conflict with Others Occasions	31.13	30.07	.86	.71-.76	30.05	32.23	0.32	.00	33.17 ^a	33.89 ^a	15.64 ^b	6.88***	.04
	43.61	29.25	.81	.56-.72	43.42	43.68	0.00	.00	44.43	43.27	42.76	0.07	.00
Social Pressure	44.85	32.26	.87	.70-.78	40.04	46.62	2.51	.01	44.99	47.85 ^a	33.37 ^b	3.47*	.02
Personal Control	28.04	31.14	.87	.71-.77	20.64	30.81	6.54**	.02	31.78 ^a	31.20 ^a	6.69 ^b	12.59***	.08
Physical Discomfort	13.26	21.20	.70	.45-.59	9.96	14.63	2.92	.01	10.71 ^a	18.00 ^b	2.26 ^a	11.27***	.07

Note. Out = Outpatient treatment. Resid = Residential treatment. Nons = Non-specific treatment. All the variables ranged from 0 to 100. Cell means with different superscripts differ from each other at the .05 level or less (Bonferroni post-hoc test).

*** $p < .001$. ** $p < .01$. * $p < .05$.

Appendix

MANEMOS. The Trigger Situations Inventory.

Items	Items in English
Emozioni Positive	Pleasant Emotions
3. Quando sono contento	3. When I am happy
13. Quando mi sento su di giri per qualcosa	13. When I get excited about something
19. Quando mi torna in mente una bella cosa accaduta	19. When a good thing that happened comes to mind
Emozioni Negative	Unpleasant Emotions
1. Quando mi sento ansioso per qualcosa	1. When I feel anxious about something
15. Quando ho voglia di staccare la spina per un po'	15. When I feel like pulling the plug for a while
17. Quando mi sento deluso di me stesso	17. When I feel disappointed in myself
Craving	Craving
8. Quando vedo qualcosa che casualmente mi ricorda il bere	8. When I see something that casually reminds me of drinking
16. Quando penso a come ci si sente bene bevendo	16. When I think about how good it feels to drink
20. Quando mi immagino il sapore o l'odore del vino o della birra	20. When I imagine the taste or smell of wine or beer
Stress relazionali	Conflict with Others
5. Quando mi sento teso o a disagio davanti a qualcuno	5. When I feel tense or uncomfortable in front of someone
12. Quando mi sento messo fortemente sotto pressione o non all'altezza delle aspettative	12. When I feel strongly pressured or not up to expectations
23. Quando sento il bisogno di farmi coraggio per affrontare qualcuno	23. When I feel the need to take courage to face someone
Occasioni	Occasions
2. Quando vado a pranzo o a cena fuori	2. When I go out for lunch or dinner
14. Quando incontro qualche amico che mi propone di bere qualcosa	14. When I meet some friends who offer me a drink.
24. Quando tutti festeggiano bevendo	24. When everyone celebrates by drinking
Pressione sociale	Social Pressure
6. Quando sono invitato a casa di qualcuno e mi viene offerto da bere	6. When I'm invited to someone's house and I'm offered a drink

10. Quando mi trovo fuori con amici e loro insistono per andare a bere qualcosa	10. When I'm out with friends and they insist on going for a drink
21. Quando mi trovo con un gruppo di persone e tutte offrono da bere a turno	21. When I'm with a group of people and they all take turns buying drinks
Autocontrollo	Personal Control
4. Quando voglio vedere se sono capace di bere moderatamente	4. When I want to see if I am able to drink moderately
9. Quando voglio dimostrare a me stesso che non ho problemi con l'alcol	9. When I want to prove to myself that I have no problem with alcohol
18. Quando voglio vedere se sono capace di bere un bicchiere ogni tanto senza diventarne schiavo	18. When I want to see if I can have a drink now and then without becoming a slave to it
Condizioni Fisiche	Physical Discomfort
7. Quando ho tremori e/o nausea	7. When I have tremors and/or nausea
11. Quando voglio mantenermi sveglio, essere più attento o più in forze	11. When I want to stay awake, be more alert or more energetic
22. Quando ho mal di testa o un altro dolore fisico.	22. When I have a headache or other physical pain