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Correspondence

A web-based group treatment for patients with alcoholic liver diseases at the time of the COVID-19 pandemic



Alcohol-related liver diseases (ALD) are the most frequent hepatic diseases and the main cause of liver disease-related death and liver transplantation [1]. Patients with ALD often present anxiety, affective and personality disorders [2], as well as other addictions, such as nicotine and pharmacological or recreational drugs, and social and familiar problems [3]. Thus, their optimal management would require a multidisciplinary approach involving hepatologists and addiction specialists (psychiatrists, psychologists, and social workers) [1].

In our Unit, actively drinking patients with ALD are offered a multidisciplinary outpatient program, which includes, besides follow-up visits by expert hepatologists scheduled according to their disease stage, regular evaluations by a team including a psychiatrist, a psychologist, and a dedicated hepatologist. Based on this assessment, some patients are enrolled in an intensive outpatient group undergoing treatment based on the principles of the Dialectical Behavior Therapy [4]. This approach aims to facilitate the achievement and maintenance of abstinence from alcohol by teaching patients how to cope with emotional dysregulation due to lack of mindfulness, interpersonal effectiveness, emotional regulation strategies, and distress tolerance skills [4].

The group treatment consists of 4-weekly morning sessions lasting 2 to 3 h for at least 3-month. The group includes a maximum of 10 patients and is led by the psychotherapist. Once a week, the group is joined by the psychiatrist who also monitors the patient's pharmacological treatment. Finally, face-to-face individual 45-minutes psychotherapeutic sessions are offered *on demand*. Two questionnaires, the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM) [5], assessing the level of current psychological global distress, and the Difficulties in Emotion Regulation Scale (DERS) [6], evaluating problems related to the emotional regulation, were employed to monitor the response to treatment besides laboratory assessment of alcohol intake.

With the dramatic outbreak of Coronavirus Disease 2019 (COVID-19), the Italian government locked-down the entire country and our hospital administration only allowed outpatient visits deemed urgent or not deferrable.

To limit the risk of recurrent harmful alcohol consumption and/or severe psychological distress, we decided to continue the group treatment organizing the simultaneous connection by participants from their homes via Skype (Microsoft). Here we report our preliminary experience of a web-based program of group treatment for patients with ALD.

Ten ALD patients (mean age 44.5 ± 5.0 ; 40% male) were included from March 11th, 2020. Eight patients with severe alcohol use disorder [7] were already attending the group treatment: 3 had cirrhosis (one waitlisted for liver transplantation),

1 a post-transplant recurrence of harmful drinking, 2 steatohepatitis, and 3 fatty liver. The remaining two patients were novel to the group treatment and joined after the first week. Unfortunately, they dropped out after 3 days and were excluded from the analysis.

During the 3 weeks of web-based treatment, the adherence was quite high: 4 patients participated to 100%, 3 patients to 92%, and 1 patient to 50% of the 12 sessions. The psychologist did not report any evidence of heavy or binge drinking except one single episode in two patients. The synthetic scores of the CORE-OM and DERS questionnaires after 3 weeks were substantially comparable to those recorded within 1-month before lockdown, reflecting stability of the patients regarding their psychological global distress and difficulties with emotional regulation (Table 1).

With the shortcomings related to the low number of patients, the short duration of observation and the lack of laboratory confirmation of alcohol abstinence, we believe that this preliminary experience provides two important messages in the current scenario.

First, web technologies are very helpful for maintaining the adherence of patients to the pre-defined path of care. This appears to be clinically relevant since the sudden and unexpected interruption of the planned care, together with the emotional stress consequent to the fear of getting infected and to the socioeconomic impact of pandemic, could result in a high risk of recurrence of harmful alcohol abuse and/or severe psychological distress [8], which, in turn, could directly or indirectly favor the deterioration of the clinical conditions. Furthermore, the web-based frequent interaction with the patients may unveil early symptoms and signs which can be promptly reported by the psychologist to the physician, thus allowing the prompt recognition of the onset of complications. This would assume even a greater relevance in a time of very limited access to health care services.

Second, once the COVID-19 pandemic will fade, the use of web-based technologies should be implemented in the current clinical practice. Even if the traditional access to healthcare services cannot be substituted, as suggested by the early drop-out of the two patients who joined the web-program without attending any previous traditional session, the integration between traditional and web-based programs offers the opportunity of extending and diversifying the pathways of care, overcoming potential logistic limitations of the access to care, and better rationalizing the use of healthcare resources.

Authors contributions

MT, GZ and AA collection of data, analysis and interpretation of data; MMB, MD and PC study concept and design, analysis and interpretation of data, drafting of the manuscript.

Table 1

Synthetic scores obtained from the analysis of the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM) and Difficulties in Emotion Regulation Scale (DERS) questionnaires at baseline, within 1 month before lock-down and after 3 weeks of the web-based program in the 8 subjects with alcoholic liver diseases participating to the multidisciplinary group treatment. Data are reported as mean and standard deviation. Comparison was made by ANOVA for repeated measures.

	Baseline	Within 1-month before lockdown	After 3 weeks of web-based program	P value
CORE-OM ¹	1.92 ± 0.65	1.41 ± 0.34	1.61 ± 0.71	0.185
DERS ²	101.86 ± 30.71	86.57 ± 23.38	84.57 ± 20.74	0.052

¹ The CORE-OM questionnaire consists of 34 questions exploring four dimensions of the patient's feelings over the last week: 1. subjective well-being; 2. problems/symptoms; 3. life functioning; and 4. risk/harm. Higher scores indicate psychological global distress.

² The DERS contains items that reflect problems with emotional regulation. It consists of the following subscales: 1. awareness of emotions (awareness); 2. understanding of emotions (clarity); 3. acceptance of emotions (non-acceptance); 4. difficulties engaging in goal-directed behavior when experiencing negative emotions (goals); 5. refrain from impulsive behavior when experiencing negative emotions (impulse subscale); 6. access to emotional regulation strategies perceived as effective (strategies). Higher scores indicate difficulties with emotional regulation.

Conflict of Interest

None declared.

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References

- [1] EASL Clinical Practice Guidelines: management of alcohol-related liver disease. *J Hepatol* 2018;69:154–81.
- [2] Grant BF, Goldstein RB, Saha TD, Chou SP, Jung J, Zhang H, et al. Epidemiology of DSM-5 alcohol use disorder. *JAMA Psychiatry* 2015;72:757.
- [3] Grant BF, Hasin DS, Chou SP, Stinson FS, Dawson DA. Nicotine dependence and psychiatric disorders in the United States: results from the national epidemiologic survey on alcohol and related conditions. *Arch Gen Psychiatry* 2004;61:1107–15.
- [4] Swenson CR. *DBT principles in action: acceptance, change, and dialectics*. The Guilford press; 2016.
- [5] Barkham M, Margison F, Leach C, Lucock M, Mellor-Clark J, Evans C, et al. Service profiling and outcomes benchmarking using the CORE-OM: toward practice-based evidence in the psychological therapies. *clinical outcomes in routine evaluation-outcome measures*. *J Consult Clin Psychol* 2001;69:184–96.
- [6] Gratz KL, Roemer L. Multidimensional assessment of emotion regulation and dysregulation: development, factor structure, and initial validation of the difficulties in emotion regulation scale (*Journal of Psychopathology and Behavioral Assessment*. *J Psychopathol Behav Assess* 2008;30:315.
- [7] Association American Psychiatric. *Substance use and addiction-related disorders*. *Diagnostic and statistical manual of mental disorders*. 5th edition. American Psychiatric Association; 2013. p. 481–589.
- [8] <https://www.forbes.com/sites/joemicallef/2020/04/04/how-the-covid-19-pandemic-is-upending-the-alcoholic-beverage-industry/#56a8f7664b0bu>

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