EFFICACY OF PSYCHODRAMA THERAPY IN PATIENTS WITH SEVERE MAJOR DEPRESSIVE DISORDERS: A RANDOMIZED PILOT STUDY.

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Abstract

The purpose of this study was to evaluate the efficacy of psychodrama psychotherapy compared with treatment-as-usual for patients diagnosed with severe major depressive disorder (MDD) in an inpatient setting. The sample included 30 patients with severe unipolar depression, randomly divided into a study group (N=15) participating in a psychodrama intervention in addition to the routine hospital protocol and a control group (N=15) participating only in the routine hospital protocol. Clinical assessment was performed with the Beck Depression Inventory (BDI-II), the Montgomery-Åsberg Depression Rating Scale (MADRS) and the Zung Self-Rating Anxiety Scale (SAS). The results of the study showed a decrease in depressive and anxiety symptoms as measured by MADRS, BDI and SAS, and this decrease was significantly greater for the psychodrama intervention group. Limitations of the present study, as well as implications for clinical treatment and research, are discussed.

Keywords: major depressive disorders; psychodrama therapy; bi-personal psychodrama therapy; controlled study

Introduction

Depression is a mood disorder that causes a persistent feeling of sadness, hopelessness and loss of interest. Also called major depressive disorder (MDD), or clinical depression, it affects how one feels, thinks and behaves and can lead to a variety of emotional and physical problems (Ferrari et al., 2013).

MDD is the fourth-leading cause of disability in the world and the leading cause in 2030 (https://www.who.int/mental_health/management/depression/en/). To date, 350 million people suffer from depression in the world, with an average prevalence of about 13% even if the prevalence rates show wide discrepancies among different countries and different studies (Ferrari et al., 2013; Lim et al., 2018). The international literature indicates that the most widespread therapy in the treatment of MDD is pharmacological (Dold & Kasper, 2017). However, only one-third of patients respond effectively to treatment (Trivedi et al., 2006). Studies indicate that those who do not respond to drug treatment benefit from supplementation with nonpharmacological therapies (Guidi, Fava, Fava, & Papakostas, 2011). Among the nonpharmacological therapies used for the treatment of MDD, cognitive-behavioral psychotherapy and relational systemic psychotherapy have been scientifically proven as effective, but studies on other kinds of psychotherapy are underway.

Psychodrama is a form of group psychotherapy introduced by Jacob Levi Moreno in the early 1920s that uses spontaneous dramatization, role playing and dramatic self-presentation to investigate and revise insights, enhance or re-enhance roles from current or past events, and generate change (Orkibi & Feniger-Schaal, 2019). The technique can help patients look at their own difficult situations from an inside and outside point of view and to explore novel solutions to their problems (Boria, 2005; Drakulić, 2011). The specificity of psychodrama is that patients are encouraged to express their feelings directly or indirectly acting a dialogue to relevant people of their lives. Recently, psychodrama psychotherapy has evolved into a bi-personal psychodrama approach. Bi-personal psychodrama works with only one client at a time, thus creating one to one relationship included both the therapist than patient (Boria & Muzzarelli, 2018; Cukier, 2010). Psychodrama has been successfully used in several mental disorders, such as substance abuse, eating disorders, anxiety disorders and personality disorders as well as in the management of depression (Orkibi & Feniger-Schaal, 2019). However, according to a recent review on psychodrama psychotherapy research, no controlled studies have been conducted with patients with MDD (Orkibi & Feniger-Schaal, 2019). Thus, the aim of this pilot study was to evaluate how psychodrama therapy can contribute to depressive and anxiety symptoms reduction in severe MDD patients. Our research hypothesis is that psychodrama could be a more effective treatment for this kind of patients compared to the conventional one. Furthermore, as secondary aim, we measured the subjective evaluations of putative amelioration by qualitative scales.

METHODS

Participants

Thirty patients diagnosed with MDD were recruited and enrolled to participate in this study. All the patients had been referred to one psychiatric hospital in Verona, Italy. Patients meeting diagnostic criteria for MDD according to the Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV) were invited to participate in the current study. The exclusion criteria were as follows: a) a person with an intellectual disability or cognitive disorder; b) a lifetime history of schizophrenic, schizoaffective, or bipolar disorder; and c) comorbidity with an eating disorder. Diagnoses were confirmed with the Italian version of the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), administered by a psychiatrist, and the self-report Millon Clinical Multiaxial

Inventory-III (MCMI-III). The patients enrolled in the study were re-analyzed *a posteriori* in order to check the compatibility of the original DSM-IV diagnosis with the DSM-5 criteria for MDD.

Study design and Treatment

The study was designed as a pilot test of a randomized controlled trial to evaluate the efficacy of psychodrama therapy as an adjunct to routine treatment in severe MDD subjects in an inpatient setting. We enrolled 30 severe recurrent MDD inpatients without psychotic symptoms in accordance with the inclusion and exclusion criteria. After written informed consent was obtained, the participants were randomized to one of the two experimental conditions. The allocation of the patients was performed by an independent researcher (the co-author Alessandra Minelli) who carried out neither the evaluation nor the therapies.

The first group (intervention group) was composed of patients treated with psychodrama psychotherapy (they received the psychodrama therapy performed in group sessions in combination with bi-personal psychodrama) in addition to treatment as usual (TAU).

The psychodrama group therapy was performed once a week during all the hospitalization. The patients involved in the study attended the psychodrama group therapy usually carried out in our psychiatric hospital that is performed with approximately 12 patients with mixed diagnoses and lasts two hours. The main techniques used in the psychodrama group therapy were the following: 1) role reversal: the protagonist enacts the role of an important person in his life to be able to see things from the partner's perspective. This helps the protagonist to better understand the other person and be more empathetic towards him. It also helps the therapist to evaluate the modality of patients' relationship. 2) Mirroring: this technique involves the protagonist simply observing while other participants take up his/her roles. It can help the protagonist to identify body language or problematic speech patterns to help learn how to consciously communicate better in the future. 3) Doubling: this is a technique where a group member, named "the double", help the protagonist to act his/her role, standing behind him/her and saying things that the protagonist might want to tell, but is not able to. It helps the protagonist to improve consciousness of self and his feelings. 4) Soliloquy: is the spontaneous expression of free-floating thoughts, ideas and feelings as one physically moves in the group environment. It clarifies thoughts, feelings and relieves emotional blocking of content.

The bi-personal psychodrama was performed once a week during the whole period of hospitalization and lasted one hour. The techniques used were the same as the psychodrama group intervention. The main characteristics that differentiated bi-personal psychodrama from group psychodrama were that in the bi-personal psychodrama the patient was always the protagonist, while in the group psychodrama he/she could have different roles, such as protagonist, actor or spectator. Moreover, there was no body involvement because the setting was the therapist office not the theatre.

The therapist was the same for both psychodrama group and bi-personal psychodrama all the study long. We claim to be able to exclude researcher allegiance (RA) effect since RA has been defined as a researcher's 'belief in the superiority of a treatment and in the superior validity of the theory of change that is associated with the treatment (Dragioti et al., 2015). Indeed, the assessors were blind to the group of allocation and the psychodrama therapist did not perform the evaluations. Moreover, the study design concerning the assessment include several self-report scales in order to exclude any influences of clinicians on the results.

The TAU was the clinical management usually provided according to the standard care protocols of the psychiatric hospital. This included daily psychiatric assessment for the administration of pharmacological treatment (antidepressants, benzodiazepines an sometimes low level of antipsychotic or stabilizers) in addiction to occupational and psychoeducational therapies (music therapy, relaxation, cinema, yoga, etc.).

The second group (control group) of 15 severe MDD inpatients received only TAU as reported above.

Assessment and measures

The tool was structured to include questions about the patients' sociodemographic characteristics (age, gender, education), as well as their first psychiatric diagnosis and comorbidities with both anxiety and personality disorders. In addition, the interview questions aimed to generate data concerning smoking behaviors, pharmacological treatment and the time of hospitalization.

The symptom assessment was carried out at 3 time points: baseline (T0); end of the hospitalization (T1); and approximately one month after, when the patients returned to the hospital for the follow-up visit (T2). The scales used in the assessments are described as follows.

The Montgomery-Åsberg Depression Rating Scale (MADRS) (Montgomery & Åsberg, 1979) is a questionnaire used by clinicians to assess the severity of depression among patients who have a diagnosis of depression. The MADRS depression test includes 10 items and uses a 0-to-6 severity scale. Higher scores indicate increasing depressive symptoms. Ratings can be added to form an overall score (range 0 to 60). Cut-off points are as follows: 0 to 6 – symptom absence, 7 to 19 – mild depression, 20 to 30 – moderate, and 31 to 60 – severe depression.

The Beck Depression Inventory (BDI-II) (Beck, Steer, & Brown, 1996) is a self-administered scale that measures the depth and behavioral manifestation of depression. It is designed to establish the existence of depression and to quantify its severity. The tool comprises several groups of questions that assess the various depressive symptoms, including sleep, appetite, mood, and negative thoughts. It is a standardized and consistent instrument with proven validity and reliability and has been widely used in research. The Italian version was utilized in this study. The tool consists of 21 statements, each having four responses of increasing severity. Numerical values in the range 0-3 are assigned to each statement to indicate the degree of severity. For each statement, the patient is asked to select the response that best describes how he/she feels at that particular point in time. The scores of the 21 statements are summed for a total score ranging from 0 to 63. The total score is then interpreted to indicate the absence of depression or normal (0-9), mild (10-16), moderate (17-29), or severe (30 or above) depression.

The Zung Self-Rating Anxiety Scale (SAS) (Zung, 1971) is a 20-item self-report assessment that measures anxiety levels, based on scores in 4 categories of manifestations: cognitive, autonomic, motor and central nervous system symptoms. In answering the statement, a person should indicate how much each statement applies to him or her within a period of one or two weeks prior to taking the test. Each question is scored on a Likert-type scale of 1-4 (based on the following replies: "a little of the time," "some of the time," "good part of the time," and "most of the time"). Some questions are negatively worded to avoid the problem of set responses. The overall assessment is indicated by the total score. The total raw scores range from 20-80. The raw score then needs to be converted to an "anxiety index" score and can be used to determine the clinical interpretation of own's level of anxiety: 20-44 is in the normal range; 45-59 reflects mild to moderate anxiety levels; 60-74 indicates marked to severe anxiety levels; and 75 and above denote extreme anxiety levels.

The following qualitative scale was administered to all patients, both among the intervention and control groups, at the end of the hospitalization (T1).

The Client Change Interview (CCI) (Elliott, 1999) is a 60- to 90-minute interview that can be administered at the end of therapy. The interview questions attempt to explore the changes that a person has noticed since therapy began, to what the person attributes these changes, and helpful and unhelpful aspects of the therapy. Specifically, clients are asked to identify about half a dozen of changes that they have noticed, including any changes for the worse. The client is prompted to consider changes in thoughts, feelings, actions, or ideas that have come to him/her or that have been brought to his/ her awareness by others. The client is then asked to rate each of these changes according to how expected versus surprised he or she was by it, how likely versus unlikely it is that the change would have occurred without therapy, and how important or significant the change was for him or her. The interview schedule then goes on to ask the person what he/ she thinks has caused the various changes, including events both outside and within therapy. Finally, the client is asked to consider what has been helpful about therapy and what aspects of their therapy were hindering, unhelpful, negative or disappointing for him or her.

Finally, after each psychodrama group therapy session, patients of the intervention group were invited to write down their experiences using the Helpful Aspects of Therapy form (HAT_3.1) (Llewely, Elliott, Shapiro, Hardy, & Firth-Cozens, 1988). HAT_3.1 is a qualitative self-report questionnaire that allows the assessment of the client's own perception of the helpful and hindering factors in their process of change. Clients are asked to identify and to rate the significant (both helpful and hindering) events during their psychodrama group treatment session. The HAT_3.1 is typically completed by clients either immediately following therapy sessions or within a day of the session to be able to recall it clearly.

Statistical analysis

To evaluate clinical efficacy, a statistical comparison between the intervention and control groups was performed for each time point using the Mann-Whitney U test, a nonparametric test that verifies whether the two samples come from the same population, i.e., if the two samples have the same median.

RESULTS

All sociodemographic and clinical characteristics of the two groups and p-values for the differences are shown in Table 1. The two groups in the current study had similar sociodemographic characteristics, with the exception of education, which was higher in the study group. The comorbidity with anxiety disorders included generalized anxiety disorder, panic disorder, and social phobia. The comorbidity with personality disorders included the following diagnoses, in detail: 11 dependent, 5 obsessive-compulsive, 5 schizoid, 4 histrionic, 2 borderline, 1 avoidant, 1 narcissistic, and 1 paranoid.

In the intervention group each patient participated in a mean of approximately 3.7 sessions of psychodrama group therapy and a mean of approximately 3.2 sessions of bi-personal psychodrama therapy.

The Mann-Whitney U test (Table 2) was used to determine if, for each measure of depression and anxiety symptomatology, there was a score that was significantly different between the intervention and control groups. No significant difference was found in the correspondence of the first and the second evaluation (T0 and T1) for each score between intervention and control groups (MADRS: 8.79E-02; BDI-II: 6.63E-01; SAS: 5.89E-01). In correspondence with the second and third evaluations (T1 and T2), the mean ranks of each score were significantly higher for the control group than the intervention group (MADRS: 2.75E-05; BDI-II: 1.66E-04; SAS: 2.72E-03). It means that the decrease in

depressive and anxiety symptoms was significantly greater for psychodrama intervention group.

A score reduction for each group was observed between the first and the second evaluation (T0 and T1) (Fig. 1-3; MADRS: intervention 96.89% and control 78.45%; BDI-II: intervention 88.69% and control 57.17%; SAS: intervention 49.10% and control 36.64%). For each score, an analysis of the intervention group indicated that the reduction between the first and the third evaluation (T0 and T2) was approximately 92.89% for the MADRS, 91.06% for the BDI-II and 54.91% for the SAS. In particular, with respect to the intervention group, between the second and the third evaluation (Δ T2-T1), we observed a slight increase (worsening) in the MADRS score of approximately 4 percentage points and a slight reduction (improvement) in the BDI-II and the SAS scores of approximately 2 and 5 percentage points respectively. On the other hand, with respect to the control group, the difference between the second and the third evaluation (Δ T2-T1) showed an increase (worsening) of 38.67, 25.55 and 15.35 percentage points for the MADRS, the BDI-II and the SAS, respectively (Table 3).

DISCUSSION

The results of the study indicate that psychodrama therapy leads to a significant decrease in depression and anxiety scores (MADRS, BDI-II and SAS) at the end of therapy; depression and anxiety further improve over time from a subjective point of view (BDI-II and SAS), while they become slightly worse from an objective point of view (MADRS). In the control group, the improvement is less important at the end of therapy, and there is an evident worsening over time according to both a subjective and objective point of view. The results lead to the acceptance of the research hypothesis and indicate the superiority of this treatment approach over the conventional one. The finding is consistent with those of other recent studies. In 2006, in Brazil, Costa et al. (Costa, Antonio, Soares, & Moreno, 2006) combined psychodrama with pharmacotherapy in the treatment of mild to moderate depression in a group of 20 outpatients by an open, naturalistic, controlled, nonrandomized study. They used only objective evaluation with the administration of Hamilton Depression Scale and obtained a significant improvement with combined psychodrama and pharmacotherapy (Costa et al., 2006). The same results were obtained in Iran from Ebrahimi Belil in 2011 (Ebrahimi Belil, 2011) with a group of 30 women with chronic mental disorders who were randomized into two psychodrama and control groups and evaluated the depressive symptoms with the BDI at pre- and posttreatment. Another non-controlled study was conducted in India by Sharma in 2017 (Sharma, 2017) with 20 participants between 16 and 18 years old from a reformatory school for juvenile delinquents who had moderate levels of anxiety and depression. They obtained only subjective evaluations with the BDI-II and the SAS and observed a significant effect of psychodrama on the level of depression and anxiety (Sharma, 2017). Finally, in 2017, Nagwa and Safaa in Egypt (Souilm & Ali, 2017) conducted a quasi-experimental study in 30 depressed inpatients who were randomly assigned to either a study group to attend a psychodrama intervention or a control group with a routine protocol. They were evaluated only one time only at the end of psychodrama with the BDI, and the results indicate the effectiveness of a psychodrama intervention in alleviating the severity of depression compared to the routine protocol (Souilm & Ali, 2017).

A strong point of this study is the use of psychodrama group therapy in association with bi-personal psychodrama. Each patient completes, on average, approximately one group session and one bi-personal session per week. In the literature, Bustos always recommends bi-personal psychodrama before a group process, thus supplying a protective therapeutic context in which the client is the therapist’s sole focus of attention (Cukier,

2010). Cukier suggests that bi-personal psychodrama is not necessarily only a preparation for psychodrama group therapy, but itself a complementary therapy to the group. It facilitates the ability to understand the individual in all his or her nuances and allows for focused attention, thus replicating the holding offered in the mother-child relationship model, the importance of which has already been well documented by all psychological approaches (Cukier, 2010). However, further research is needed to confirm these findings with a larger amount of evidence.

Another objective of the study was the evaluation of the subjective experience of the treatment provided. In both groups, the CCI identified a major change in clinical features, such as improvements in mood, anxiety and sleep-wake rhythms. The patients of the intervention group, however, differed from the control participants, as they showed significant changes in other parameters such as creativity, spontaneity, interpersonal relationships, self-assurance, social skills, awareness, activation and ability to have empathic relationships. The administration of the HAT_3.1 to the intervention group after every psychodrama group therapy session allowed us to identify what subjectively were the useful aspects of the therapy. The most important and helpful aspects identified were the importance of meeting with the group, the emotional sharing of feelings, and the importance of finding new answers to crystallized situations and appropriate answers to new situations (spontaneity and creativity). In accordance with the scientific literature, we can argue that what makes the difference between the intervention and control groups is the therapeutic relationship: a good subjective experience is positively correlated with the therapeutic alliance "in and with" the group that is the place and the agent of cure. The relationship between the psychotherapist and the patients in the group frequently presents itself as a real bond of attachment. Research data have repeatedly demonstrated that the therapeutic alliance is a powerful predictor of outcomes (Flückiger, Del Re, Wampold, & Horvath, 2018). The therapist's personal attributes (such as being flexible, honest, respectful, trustworthy, confident, warm, and interested) and in-session activities with the group (such as exploration, reflection, cohesion, empathy, and the collection of client feedback) contribute positively to the alliance and predict the success of treatment (Norcross & Wampold, 2011).

Some limitations of the present study must be addressed. The small sample size might be a threat to the generalization of the results. The relatively small sample size might have contributed to the high heterogeneity of the results found, indicated by large standard deviations. It would be desirable to have a greater number of patients involved, and for this reason we can considerate our research as a pilot study. However, our work represents the first randomized control study in severe MDD patients, with a measure of symptoms at three different time points, contributing to improve the methodology research in the psychodrama psychotherapy field. Moreover, the use of medication was not a controlled variable, but although this feature could have led to a bias, measures of the number of medications did not show significant differences between the groups, suggesting that this aspect was not likely to have impacted the study outcome. Moreover, although a strength of our study is the combination between psychodrama group and bi-personal psychodrama, for the bi-personal intervention to date there is not a well-defined protocol for the application. Finally, our control group is made of a TAU intervention that represent a strong limitation regarding the interpretation of the results rather than the use of a control group who receives an active intervention, preferably an evidence-based treatment for MDD.

CONCLUSION

Our results have shown a benefit of the use of psychodrama in severe MDD patients in augmentation to pharmacotherapy. Further research with a higher level of evidence and strict methodology is necessary to consolidate the role of psychodrama therapy as an option in the treatment of MDD and other mental disorders, in particular in comparison with other evidence-based interventions. We hope that the use of psychodrama therapy can be included in the management of psychiatric patients in hospital contexts where it is possible to organize psychotherapy groups, thus optimizing resources.

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Declaration of interest

The authors declare no conflict of interest

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Table 1. Sociodemographic and clinical characteristics for both groups of patients involved.

Characteristics	**intervention group (N=15)**	**control group (N=15)**	**p-value**
Age (years), mean (SD)	52.0 (15.5)	60.6 (8.4)	0.10[a]
Gender (%F)	73.3	80.0	1.00[b]
Education (years), mean (SD)	11.1 (3.7)	8.7 (3.3)	**0.047[a]**
% recurrent MDD	100.0	100.0	1.00[b]
% comorbidity with anxiety disorders	100.0	100.0	1.00[b]
% comorbidity with personality disorders	100.0	100.0	1.00[b]
Time of hospitalization (days), mean (SD)	31.5 (8.9)	29.4 (8.5)	0.43[a]
% of smokers	80.0	80.0	1.00[b]

Bold numbers indicate significant p-values (<0.05)
[a] p-values using the Mann–Whitney U test
[b] p-values using the Fisher's exact two-sided test.

Table 2. Results obtained from the Mann-Whitney U test analysis for each time points.

	Group	**T0 Mean Rank**	**P-value**	**T1 Mean Rank**	**P-value**	**T2 Mean Rank**
MADRS	Intervention	30	8,79E-02	0	***2,75E-05***	2
	Control	35		6		21
BDI	Intervention	37	6,63E-01	3	***1,66E-04***	2
	Control	35		11		22
SAS	Intervention	48	5,89E-01	23	***2,72E-03***	22
	Control	48		29		37

Bold numbers indicate significant p-values (<0.05)

Table 3. Changes at the time points (score reduction, %).

		T0 ➞T1	T0 ➞ T2	Δ T2-T1
MADRS	*Intervention*	96,89%	92,89%	-4%
	Control	78,45%	39,78%	-38,67%
BDI	*Intervention*	88,69%	91,06%	+2%
	Control	57,07%	31,52%	-25,55%
SAS	*Intervention*	49,10%	54,91%	+5%
	Control	36,64%	21,29%	-15,35%

Fig. 1. Evolution of MADRS scores assessed at baseline (T0), at the end of the hospital stay (T1), and at follow-up (T2).

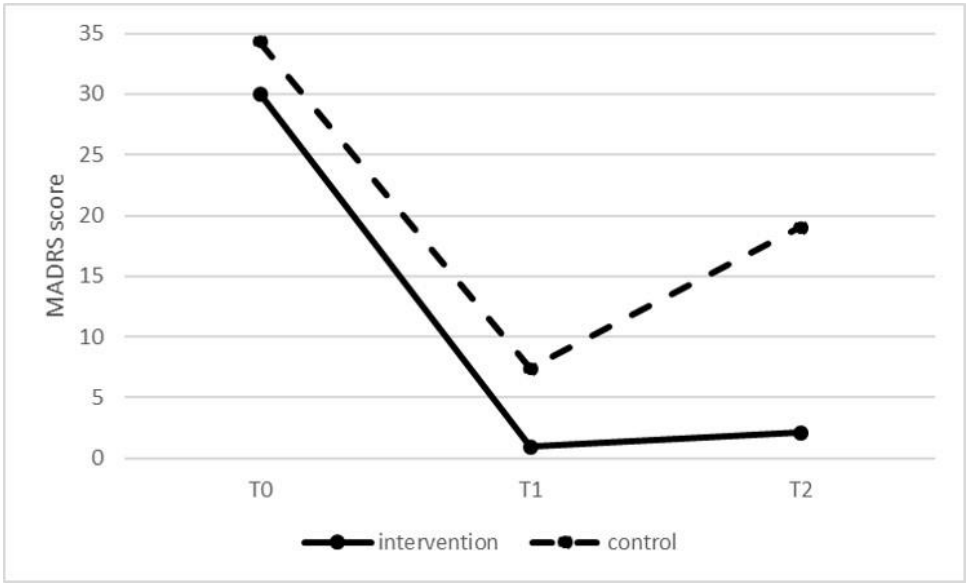


Fig. 2. Evolution of BDI scores assessed at baseline (T0), at the end of the hospital stay (T1), and at follow-up (T2).

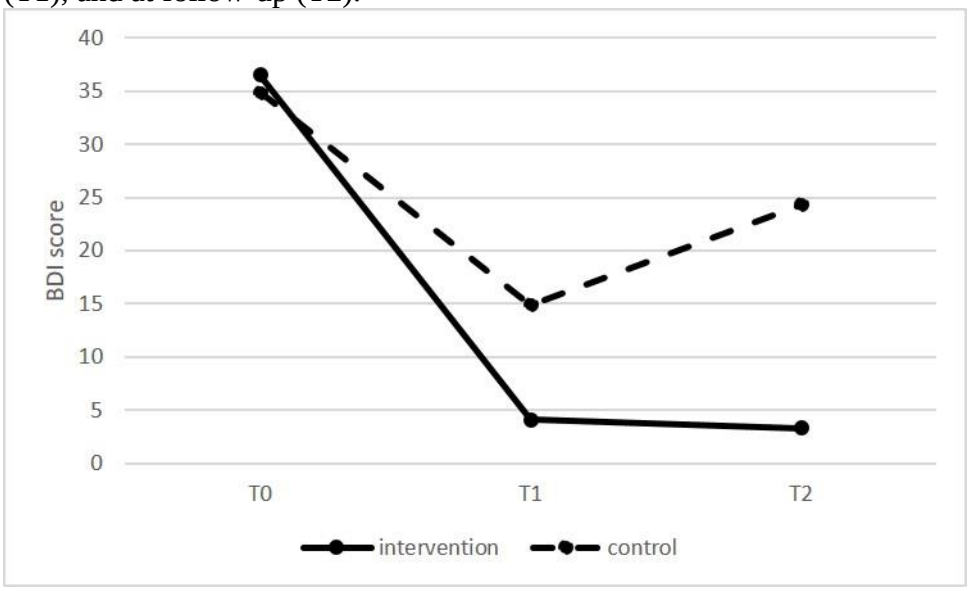
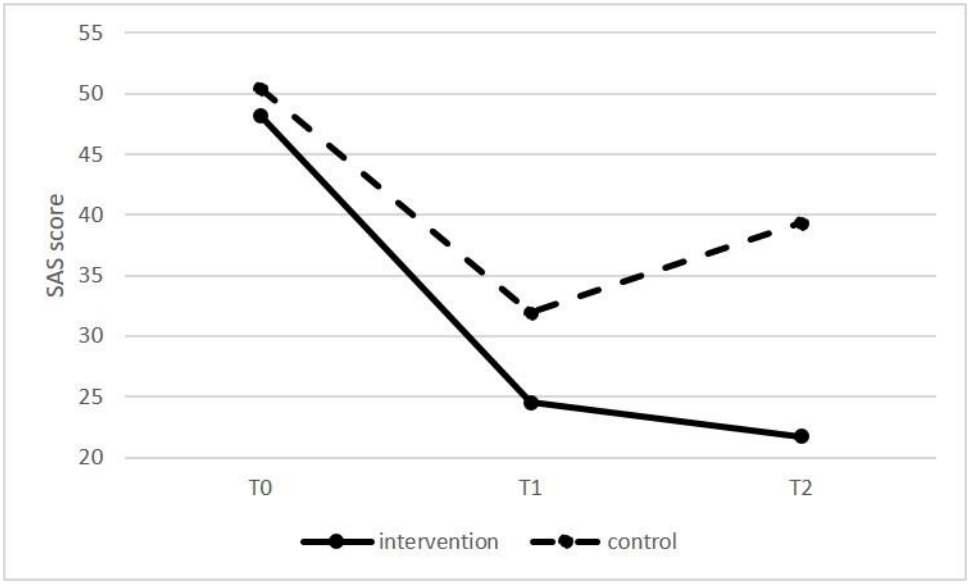


Fig. 3. Evolution of SAS scores assessed at baseline (T0), at the end of the hospital stay (T1), and at follow-up (T2).


55
50
45
40
35
30
25
20
SAS score
T0
T1
T2
intervention
control