

Effect of Psychodrama Group Therapy on Remission and Relapse in Opioid Dependence

Tuğçe TOKER UĞURLU¹, Nalan KALKAN OĞUZHANOĞLU¹, Figen ATEŞÇİ¹

Department of Psychiatry, Pamukkale University School of Medicine, Denizli, Turkey

ABSTRACT

Introduction: Relapse is one of the most common problems in the addiction treatment. The aim of this study was to increase the remission rates, reduce relapse rates and investigate the effect of psychodrama on depression, anxiety and locus of control after treatment in a group of inpatients diagnosed with opioid use disorder (OUD).

Method: The study was started with 13 inpatients diagnosed with OUD and completed with six members. In addition to psychoeducation, the psychodrama study of 13 sessions lasted. The control group consisted of six individuals with the same diagnosis and characteristics, who had only undergone psychoeducation. Hamilton Depression-Anxiety and Rotter Locus of Control Scales were applied to the participants before and after the group.

Results: Anxiety rates decreased in both groups according to pre-test

and post-test results. In the outpatient part of the study, five patients in the patient group remained in treatment and clean at the end of the fifth month and four at the end of the sixth month. In the control group only two people could remain in treatment and clean at the end of the sixth month. The most effective psychodrama techniques were empty chair, doubling and mirroring.

Discussion: Both psychodrama techniques and SAMBA program are applications that reduce anxiety levels of patients. It was concluded that psychodrama applications aimed at increasing the internal control belief may be beneficial in terms of increasing the motivation of the patients and coping with relapse.

Keywords: Addiction, opioid, psychodrama, remission, relapse

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INTRODUCTION

Opioid use disorder (OUD); is a set of physiological, behavioral, and cognitive symptoms in which opioid use is sustained throughout life, although it causes significant problems. The use of psychosocial interventions such as motivational interviews, behavioral therapies, self-help groups and group psychotherapies resulting in increased self-esteem, development of coping strategies related with situations that lead to relapse to accompany biological treatments lead to increased remission times and ratios (1, 2). "Tobacco, Alcohol and Drug Dependence Treatment Program (SAMBA)" is routinely practiced in our country (3). This use of cognitive behavioral therapy against dependence is observed to be effective in dependence treatment. Therapy methods such as dialectic behavior therapy, awareness and acceptance therapy, motivational interview are also included in the program (1, 3).

Remission and relapse are two primary processes that determine the natural course of dependence. Treatment during relapse defined as the return to the previous level of use with regard to quantity and behavior following a certain period of staying clean is one of the most important issues in the treatment process (2). It has been reported as a result of studies carried out that 50-60 % of alcohol/substance abuse patients return to using the substance again during the several months following detoxification (2, 4).

Psychodrama group therapy is a psychotherapy method based on role theory which encourages functional behavior change through dramatization, role playing and dramatic self-representation (5). Acquiring "courage" is one of the most important goals for the patient group that continuously goes through the cycles of quitting and restarting and that needs the sense of sufficiency and security. Majority of the relapses are related with negative thoughts, emotions and interpersonal conflicts (2, 6). It may be considered that psychodrama will play an effective role in relapse as it involves verbal and nonverbal means of communication as well as re-enactments of memories related with a certain event in the past, unresolved processes, internal dramas and constructs that will prepare the individual for future risks (5). It is aimed to analyze the transferences (emotional transfer) in addition to improve tele (mutual empathy) and empathy (living the other) from among the healthy ways of establishing a relationship, attain catharsis, problem solving and coping skills along with interpersonal learning and alternative thinking skills (7, 8). These skills are frequently tried out with doubling, role reversal and mirroring from among the warm-up methods. In addition; many techniques such as replay, empty chair, voice amplification, self-presentation, soliloquy contribute to experiencing these skills (9, 10).

Even though there are studies in our country and in the world evaluating the effects of psychodrama activities on alcohol addicts (11-13), there

is no study on the effects of psychodrama on remission and relapse in OUD. It is anticipated that psychodrama is a method that may increase self-esteem and self-sufficiency (2) which are critical in the struggle against relapse resulting in an increase in the belief of the individual to control the events and thus reducing depression and anxiety which are frequently encountered as comorbidities (1, 4, 14).

The primary aim of the present study derived from a thesis on psychodrama counseling was to apply a semi-structured psychodrama group study on a group of inpatients at the Alcohol Substance Addiction Research Treatment and Training Center (AMATEM) undergoing treatment with OUD diagnosis and to increase their remission durations and ratios after discharge. Moreover, it was also aimed to evaluate the effects of psychodrama on depression, anxiety and locus of control in this patient group.

METHOD

Participants

The case study of the group was comprised of 13 male patients aged 18 and above who volunteered to take part in the study and who have been diagnosed with OUD in accordance with DSM-5, who have undergone inpatient treatment at the Pamukkale University Psychiatry Department AMATEM clinic during October-November 2018, who have completed one week detoxification period as well as the psychodrama group study they simultaneously attended in addition to the SAMBA psychoeducation, but could be completed with six members. The control group was comprised of 11 patients with the same diagnosis who underwent inpatient treatment during similar time periods (October-November 2018), who have completed their detoxification period, have similar sociodemographic characteristics as those of the patient group, who have been subject to SAMBA psychoeducation but was completed with six patients due to various reasons following discharge. Patients with mental retardation, accompanying severe psychiatric diseases, and other alcohol-substance use disorder (ASUD) diagnosed patients were excluded from the study in both groups. Sample group was not used in the study and all patients who met the inclusion criteria during the study period were included in the study. "Ethics council approval" was taken for the study from Pamukkale University ethics council dated 25,12,2018 and numbered 24.

Measurement Tools

The interview form including questions on sociodemographic and substance use along with scales were applied on the patients in the case study and control groups at the beginning of the study following a detoxification period of one week. The scales were reapplied at the time of discharge following a hospitalization period of about one and a half months during which psychodrama and SAMBA group studies were performed. Urine drug test was carried out during the months following discharge with regard to remission/relapse state, during which repeated substance use, daily activities and social states of the patients were recorded. Negative substance (opioid) metabolites in the controls of the patients for at least three months were evaluated as "early remission". Patients for which substance (opioid) metabolite in the urine was tested as positive during any period were accepted as relapse.

Hamilton Depression Scale (HAM-D): Developed by Hamilton (15) for measuring the severity of depressive symptoms which was restructured by Williams (16). Validity and reliability studies for the Turkish form were carried out by Akdemir et al. (17); with the cutoff score accepted as 8.

Hamilton Anxiety Scale (HAM-A): A semi-structured five-point Likert type scale developed for measuring the level and change in severity of anxiety which was applied by the interviewer (18). Yazıcı et al. (19) determined that it is valid and reliable; with the cutoff score accepted as 6.

Rotter Locus of Control Scale: Rotter's (20) Locus of Control Scale; measures the general expectation or belief of the individual with regard to the reinforcements being controlled by internal or external forces (luck, fate etc.) with the Turkish adaptation made by Dağ (21). Higher scores obtained from the scale indicate an increase in external control.

Group Study

SAMBA

Both patient and control group participants were included in the "Clinical SAMBA" psychoeducation. This education that has continuity within the routine operation of the clinic was applied by a specialist psychologist working as assistant leader. Clinical SAMBA trainings are comprised of 20 sessions involving interactive activities, educational elements and homework.

Psychodrama

Psychodrama group study was planned as 13 sessions during the dates of October - November 2018, three or four times a week (about five units) during 09:00-13:00 based on the work schedule of the clinic. The sessions were planned as about five units and the study was finalized in the 13th session when it was taken into consideration that the medical treatment and SAMBA psychoeducation process of the patients at the AMATEM clinic is about one-one and a half months and that some patients are discharged without even completing this period due to a general discord related with the service rules. The studies were started with 13 volunteer patients at the clinic and the first sessions were planned as open. The group process was completed with a total of six patients following the discharges due to discord with service rules and treatment. The group study was not continued as outpatient study after discharge. The duration and intensity of the group study was considered as sufficient for group cohesion. The first session of the psychodrama study started with introduction, briefing and establishment of group rules. Each session of the semi-structured program started with the sharing of emotions and opinions after which the applications were continued based on the needs of the patients; warm-up and group games (vignettes) were also included as part of the SAMBA program sessions which include reasons for relapse such as motivational issues, recognizing our emotions, anger control, social support issues, inability to say no. Moreover, protagonist games were also applied which are centered on the ready group member. Empty chair method was frequently used in addition to doubling and mirror which are among the principal methods of psychodrama. The sessions were ended with the group members sharing their opinions and feedback at the end of each group study.

The sessions were managed by a psychiatry specialist who is also a psychodramatist and a clinical psychologist working at the same clinic. Group studies were carried out in the inspection of the psychodrama instructor. The observations of the administrator and assistant were recorded at the end of each session and supervision was taken from the instructor. When writing down the group process entitled based on related themes, the names of the characters were used which the participants selected during the warm-up game of "who do you want to be" played for determining the traces and identifications of childhood.

Comments based on observation during the writing stage were obtained from the roles that each member selected during the group process and their actions and the observations of their transformations on the stage, the feedback on themselves and other group members provided at the end of each session as well as the reporting process of two administrators and the supervisor. Even though objective measurement results in an insufficient dimension of proof, it should be given importance as the observation based data of the psychodrama group process.

Data Analysis

SPSS (Statistical Package for Social Sciences) Version 22.0 was used for the statistical evaluation of the data. Mann-Whitney U test was used for evaluating the difference between two independent groups with regard to measurable variables since the number of measurable variables is less than 30 and since they do not comply with the normal distribution, while Wilcoxon test was used for pre-post evaluations of dependent groups. Statistical significance was accepted as $p < 0.05$ in all tests.

Group Process

Session 1 “What remains of my journey of life”: Introduction was actualized by way of a group game aiming to help them get closer and get to know each other better by way of a map of Turkey thought to be on stage starting from their birth advancing up to the present. Traumas and reduced self-esteems due to negative life events were evident. They were asked to investigate pieces that give them strength which they may have forgotten or ignored. They indicated their families, loved ones, children, occupations, purity of their childhood as the strength they bring with them on their journey of life.

Session 2 “I was never a child and I had no father”: A group game on rules/having no rules was planned during the second session due to the fact that the patients struggled with adapting to the service rules and similar group rules as well as their behaviors that contradict with the rules. Some members did not want to take part in the directive related with taking on the roles of father-child and they put forth their discomfort through their behaviors and words. Majority of the participants resisted to this warm-up game based on the relationship with the father as the first authority, rule-maker. This led us to think that they did not want to take on the desired roles due to problematic father-son relations, possible anger against the role of the father and the fact that they have taken on no role other than that of the substance dependent young individual for a long period of time. Following the break, they sat on two empty chairs named as rules and no rules to share their experiences and opinions related with the parts where they obeyed and did not obey the rules.

Session 3 “Water of imagination”: Who would you want to be? It was aimed with this warm-up game to evaluate the figures of identification. The general preferences of the group were inclined towards fighter heroes and gamers who represent power. During the group game, the traumatic experiences of the members became even more visible following the instructions of “We are on a ship and suddenly the weather gets bad, rain and storm capsize our ship and we are stranded on a remote island... We walk and walk, we come across some water (empty chair), but a magical water of imagination which can change an event in the life of or part of the life of those who drink from it; what would you want it to change?” Afterwards, when the imagination technique was used on the empty chair, the administrator made doubling behind the members whose eyes were closed and repeated their words. Thus, the dreams of those who have difficulties in abstract thinking became more concrete.

Session 4 “Inability to say No”: Empty chairs were placed on the stage for their positive and negative choices in their lives. The group determined the chairs for substance, family, social life and present life. The reasons and payoffs related with the choices of the chairs were explained to them. Supportive factors were explained more for the family and social life chair. Positive expectations were put into words for the chair representing the present life.

Session 5 “I cannot contain myself when I see it”: Following the expressions of the participants as, “I cannot contain myself, I would use it if I see it” their final repetition cases were studied prior to their hospitalization at the clinic. The game was related with meeting their insufficiency in taking responsibility and arbitrary search by way of a

pseudo provider. It actually put forth that there are always different options, that they can say no indicating an increase in the awareness level of the group.

Session 6 “A movie is playing that I am starring in”: During the group game designed to increase motivation and resilience, chairs were placed in the form of a cinema hall, the lights were dimmed and the participants were asked to close their eyes. The film in question was the life of the dependent. He/she was using the substance, enjoying it and spent many years in this way. Afterwards, the film stopped. Everyone was asked to focus on the darkness and share what they saw there at first light. Majority saw their family members, mothers, children, the objects of love in their lives and they drew strength from them.

Session 7 “The court of law has been set up and I am on trial”: A group game was played focusing on the theme of my guilt and responsibility. A “court of law” was set up for each participant. The protagonist selected his/her lawyer on the felon’s dock and the other group members took on the role of jurors. The assistant leader took on the role of the prosecutor during each session. They explained following the feedback that they have now realized their own responsibilities, that they previously always blamed others and did not see the role they played and that they had never witnessed how the substance harmed them. They chose the name of “Substance Warriors” for their group. Naming of the group was considered as an action that brings them together thus increasing their sense of belonging.

Session 8 “Does my anger control me or do I control my anger”: We talked about the strength and compassion of the heroes they selected for themselves. Some of the participants stated that they could control their anger through patience, moving away from the environment, smoking, substance use; while others stated that they are more uncontrolled when they use the substance and thus they may harm themselves or others recklessly.

Sessions 9 and 10 “Wounded trees” “Family garden”: It was aimed to work on the “family” from which support is expected in addition to working on traumatic experiences, trust issues, anger and regrets considered as the root of all negative emotions. They took on the roles of the family members and looked at themselves and the substance through their eyes. Common discourses during the game such as “resilience”, “strength”, “happiness”, “refreshment”, “hope”, “power”, “security”, “life” indicated their need for support and trust during the treatment process in addition to leading us to think that the group is ready for change.

Session 11 “My father and myself after Müslüm Baba”: The need to focus on the “father” was apparent in the group that refrained from focusing on the “father” at every opportunity and even said “I didn’t bring my father on purpose”. The demands from the patients were taken into consideration and it was planned to go and watch the movie “Müslüm”. The film would act as a warm-up for focusing on the “Father” figure. After the film the study focused on their encounters with their fathers in the empty chair as well as an evaluation of their own fatherhood. It was observed that majority of the group members consider the father figure as a “bad father” due to their traumatic and conflicting relations with their fathers.

It was asked after the game whether their fathers had any positive features in addition to the negative characteristics. The positive aspects of fathers including themselves (being hardworking, never acting lazy, strong will, chasing their own truths) were discussed. It was thus tried to consider the “good” sides of the “bad father” they have seen and taken as a model thus raising their awareness.

Session 12 “Job searching with my history of substance dependence”:

The final session before they left was planned to focus on the experience of “job searching” as a preparation for the outside life. Protagonist game was played because the member named as Robocop kept on making positive references regarding the substance. The member was able to realize the negative aspects of his relationship with the substance following this game.

Session 13 “A gem hidden in me, no one knows not even me”:

Two chairs were placed at the center of the group circle facing each other during the final session. Each member sat on one of these chairs in order and others sat on the opposing chair to provide feedback on the first member. The group study was finalized with positive feedbacks.

RESULTS

The mean ages of the case and control groups were; 22.5±5.8 (19-34), 22.2±2.1 (19-24) respectively (U=23.500, p=0.394).

Table 1 presents the distribution of the sociodemographic characteristics. The mean durations for substance were determined for the case and control groups as 5.83±2.63 and 3.83±0.40 years respectively (U=6.000, p=0.065). The longest time spent clean without using substance was determined as 8±3.84 months for the patient group and as 4.75±4.99 months for the control group (U=6.500, p=0.257). The age of starting substance use was determined as 15±2.09 and 18.33±1.86 for the case and control groups respectively (U=32.500, p=0.015, Table 1).

Table 2 presents the inter-group evaluation for the scores of the case and control group patients obtained from the HAM-A, HAM-D and Rotter Locus of Control scales before and after the psychodrama group study. Accordingly, the difference between the HAM-A pretest-posttest measurement was statistically significant (p=0.043), whereas the pretest-posttest measurements were similar for the other scales (Table 2). Moreover, the pretest-posttest scores for the intergroup scale assessments were also determined as similar (p>0.05).

Table 1. Distribution of the sociodemographic characteristics and the characteristics related with dependence for the case and control groups

| | Variable | Case | | Control | | | |
|--|------------------|-----------|--------|------------|--------|--------|--------|
| | | n | n | U | P | | |
| Marital Status | Single | 5 | 5 | | | | |
| | Married | 1 | 1 | | | | |
| Education status | Primary School | 4 | 3 | | | | |
| | High School | 2 | 2 | | | | |
| | Associate Degree | | 1 | | | | |
| Employment at a regular job | Employed | 4 | 3 | | | | |
| | Unemployed | 2 | 3 | | | | |
| Smoking status | Smoker | 6 | 6 | | | | |
| Alcohol use | Never used | 1 | 2 | | | | |
| | Smoking | 4 | 3 | | | | |
| | Quit | 1 | 1 | | | | |
| Dependence related treatment history | Yes | 5 | 4 | | | | |
| | No | 1 | 2 | | | | |
| Substance dependence story in the family | Yes | 1 | 1 | | | | |
| | No | 5 | 5 | | | | |
| | | Case | | Control | | | |
| | | Mean±SD | Median | Mean±SD | Median | | |
| Age of starting substance use | | 15±2.09 | 14.50 | 18.33±1.86 | 18.50 | 32.500 | 0.015* |
| Substance use duration (years) | | 5.83±2.63 | 5.50 | 3.83±0.40 | 4 | 6.000 | 0.065 |
| Longest duration of substance use (months) | | 8±3.84 | 8 | 4.75±4.99 | 3 | 6.500 | 0.257 |

n: number; SD: standard deviation; *: Mann-Whitney U test; p<0.05

Table 2. Comparison of the repeated measurements of HAM-A, HAM-D and Rotter locus of control scales for the case and control groups

| Assessment tool | Group | Pretest Mean±SD | Posttest Mean±SD | Wilcoxon test value | p |
|-------------------------------|---------|-----------------|------------------|---------------------|--------|
| HAM-A scale | Case | 8.17±3.86 | 4±1.26 | -2.023 | 0.043* |
| | Control | 7.50±3.45 | 2.33±2.42 | -2.023 | 0.043* |
| HAM-D scale | Case | 9±7.34 | 3.33±1.63 | -1.625 | 0.104 |
| | Control | 6.83±5.91 | 2.50±1.64 | -1.219 | 0.223 |
| Rotter locus of control scale | Case | 10.67±1.03 | 9.67±2.16 | -1.190 | 0.234 |
| | Control | 8.17±3.06 | 9±3.09 | 0.412 | 0.680 |

HAM-A: Hamilton anxiety scale; HAM-D: Hamilton depression scale; SD: standard deviation; *: Wilcoxon test; p<0.05

Table 3. Changes in the scale scores of the group members

| Group members | HAM-A scale | | HAM-D scale | | Rotter locus of control scale | |
|---------------|-------------|----------|-------------|----------|-------------------------------|----------|
| | Pretest | Posttest | Pretest | Posttest | Pretest | Posttest |
| Boyka | 3 | 3 | 2 | 1 | 11 | 9 |
| Bruce Lee | 6 | 3 | 11 | 6 | 11 | 13 |
| Jackie Chan | 13 | 3 | 18 | 3 | 10 | 7 |
| Mario | 12 | 6 | 3 | 3 | 12 | 10 |
| Robocop | 9 | 4 | 17 | 3 | 9 | 11 |
| Tom | 6 | 5 | 3 | 4 | 11 | 8 |

HAM-A: Hamilton anxiety scale; HAM-D: Hamilton depression scale

It was observed when the total score changes of the patients in the patient group for all scales were examined that the anxiety scores decreased for Bruce Lee, Jackie Chan, Mario, Robocop and Tom which were determined to be high during the pre-test when evaluated as lower than the HAM-A scale cutoff score. Similarly, the depression scores of Bruce Lee, Jackie Chan and Robocop were observed to decrease which were determined to be high during the pre-test compared with the HAM-D scores. While it was observed that the Rotter locus of control scale scores decreased for Boyka, Jackie Chan, Mario and Tom corresponding to an increase in the internal locus of control belief, an increase was observed in the scores of Bruce Lee and Robocop corresponding to an increase in the external locus of control belief (Table 3).

When the processes of the group members and their post-discharge six months polyclinic follow-ups are taken into consideration (Table 4):

Boyka: Sincere sharings by this recessive, quiet member with limited participation and his ability to open up confidently were the positive changes that took place during this process. The fact that he was still clean and had started a regular job during the six month follow up after discharge was promising.

Bruce Lee: Had high anxiety and depression scores at the beginning of the group study and had limited participation and bad adaptation. Despite the concerns related with substance dependence and staying clean after discharge, he was still clean during the six month controls.

Jackie Chan: He was frequently dozing off during the sessions, but even so his willingness and congenial behaviors when selected for a role were

surprising. He could give proper responses and functional feedback even when it seemed as if he was not listening. It was learned after discharge that his follow-up and treatment is ongoing at an external center due to his move to a different city.

Mario: A member with low resistance and self-confidence. He was still clean during the first five month follow-ups after discharge, however he had not been able to change his circle of friends comprised of substance dependent people and experienced a shift during the six months follow-up.

Robocop: This member had a different connection with the substance compared with the other members because he had been using substance since very early ages. He had tried various other substances but had never experienced quitting the use of substance, he considered the substance as a sort of healing for himself. The patient did not come for any follow-up sessions after discharge and was evaluated as No follow-up.

Tom: He was a member who had not experienced any difficulty in life and who was always cared for by his family in life; he did not take life seriously. Despite these negative characteristics that may hinder his struggle against the substance, he was still clean during the follow-up sessions after discharge and he had started working.

Whereas four patients in the control group experienced relapse right after the first month follow-up control after discharge; two patients were still continuing their follow-ups and were in remission (Table 4).

Table 4. Follow-up results on the 1st, 3rd and 6th months after discharge for the case and control groups

| Members | Follow-up after discharge | | |
|-------------|------------------------------------|------------------------------------|------------------------------------|
| | 1. month | 3. month | 6. month |
| Boyka | Clean, regular follow-up | Clean, regular follow-up | Clean, regular follow-up |
| Bruce Lee | Clean, regular follow-up | Clean, regular follow-up | Clean, regular follow-up |
| Jackie Chan | Clean, follow-up at another center | Clean, follow-up at another center | Clean, follow-up at another center |
| Tom | Clean, regular follow-up | Clean, regular follow-up | Clean, regular follow-up |
| Mario | Clean, regular follow-up | Clean, regular follow-up | No follow-up |
| Robocop | No follow-up | No follow-up | No follow-up |
| Control 1 | Clean | No follow-up | No follow-up |
| Control 2 | Clean | No follow-up | No follow-up |
| Control 3 | Clean | No follow-up | No follow-up |
| Control 4 | Clean | No follow-up | No follow-up |
| Control 5 | Clean, regular follow-up | Clean, regular follow-up | Clean, regular follow-up |
| Control 6 | Clean, regular follow-up | Clean, regular follow-up | Clean, regular follow-up |

DISCUSSION

A study indicating the positive effects of psychodrama group therapy on the remission duration and ratios during the follow-up period has not been observed within the scope of the limited group study literature in the world and in our country in the field of dependence (11–13, 22–27). Our study is most probably the first study on this subject.

Relapse ratios have been observed to be quite high in many previous studies with 50–60 % of the patients shifting during the first six months following the detoxification period (2, 6). Negative emotions such as anger, guilt along with positive emotions during circumstances such as marriage, low problem solving skills, easy access to the substance, social pressure, insistence, intense desire and other dependencies can be indicated among factors that lead to relapse (1, 27). Low problem solving skills and wrong beliefs and attitudes such as “if I see it I will use it again, one cannot quit the substance but can only give a break” were observed in our study as well. In addition, it was realized that relapse occurred when access to substance becomes easier or in cases of pressures from friends and cases when it is not possible to cope with craving. The fact that five of the patients in the patient group were still in remission during the first five months and four of the patients were still in remission at the end of the sixth month was a positive indication of the psychodrama application despite all relapse risks involved.

It was determined as a result of the study by Coşkun and Çakmak (11) in which psychodrama was used on ASUD patients that the fears of insufficiency of the patients decreased. During our study, the patients provided feedbacks following the games based on self-confidence, insufficiency and resilience that they became stronger and that their confidence levels increased. In addition, it can be considered that the increase in the internal locus of control belief in four patients has developed parallel to the increase in self-confidence.

Similar to the study by Boran (22) as a result of which it was concluded that psychodrama increases the empathic tendency in ASUD patients, it was observed that the empathy skills of the participants which were very low during the first sessions increased following the interactions that took place during the role reversal, doubling stages.

Arık (24) concluded as a result of the psychodrama study on ASUD patients that when the patients develop an insight regarding the negative impacts of the substance as well as its impacts on their family and social lives will enable them to restructure their goals for their substance-free lives. It was considered in our study that they developed awareness with regard to the negative effects of the substance as well as the fact that their families will not be able to find a place in their lives as long as the substance is present in their lives.

It has been reported as a result of various studies that depressive disorders and anxiety disorders are observed frequently in alcohol and substance dependence; that depression disorders are observed in 79 % of the individuals with alcohol/substance dependence while anxiety disorders are observed in 76 % (14). High anxiety (HAM-A) scores that were above the cutoff score in our study in both the patient and control groups decreased at a statistically significant level in both groups in both the assessments and the pretest-post-test scores. Similarly, a decrease was observed in the depression (HAM-D) scores; however it was not at a statistically significant level. A statistically significant difference was not observed with regard to the HAM-A and HAM-D pretest/post-test scores between the patient group subject to psychodrama and SAMBA and the control group subject only to SAMBA. Psychodrama group training that was included for a period of 13 sessions did not have any impact on the positive impact of SAMBA on this group.

The Rotter locus of control scores of the patient group decreased in our study, whereas the scores increased for the control group. A difference could not be observed between the groups with regard to the scale scores and the post-test scores were close to each other. While the internal control beliefs of the patients increased slightly based on the test scores, the external control beliefs decreased slightly. The increase in the internal control belief in the patient group can be an indication of the patients becoming more aware of their own responsibilities and an increase in the acquisition of bearing the consequences. On the contrary, the increase in the control group of the external control belief related with luck and fate may be considered as an excuse for using the substance.

It was observed as a result of our study based on the group processes and feedbacks of the patients who participated in the psychodrama group study that they acquired an awareness with regard to increase in self-confidence, insight into taking one's own responsibility as well as an awareness on the harmful effects of the substance in addition to increased treatment motivations. There was a statistically significant decrease in the anxiety levels compared with the control group while an increase was observed in the internal locus of control belief. Only two of the control group patients could remain clean during the six months follow-up after discharge. While the other four patients went through a shift at the end of the first month. Five of the patients who took part in the psychodrama group therapy were clean for the first five months. Four patients excluding one were still not using substance during their six month follow-ups and they were regularly attending the control interviews. These follow-up results were evaluated as positive indicators with regard to the positive impact of psychodrama on the patient group. Empty chair, doubling and mirror were the techniques used by the patients in unison during the group sessions. The members took on roles to work on real-life scenarios and thus had a pre-experience. Most likely, this study prepared them for the outside world and enabled them to use the skills they acquired.

The results of our study indicate that treatment methods utilizing psychodrama methods in addition to the SAMBA psychoeducation have positive impacts on increasing treatment motivation and coping with relapse in opioid dependence. Psychodrama applications that may be effective especially in increasing internal control may be structured and further studies can be carried out at the AMATEM clinics with regard to their use in routine applications.

One of the limitations of the study was the small number of participants in the groups which may render the results debatable. Another limitation was that the psychotropic medications used by the patients in their treatment were excluded. Hence, the pure impact of group studies could not be determined. Moreover, the fact that the patient group (SAMBA and psychodrama group therapy) participated in more hours of group therapy compared with the control group (only SAMBA group therapy) may be considered as another limitation since it can have a positive impact on the results independent of the psychodrama techniques used.

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Ethics Committee Approval: “Ethics committee approval” was obtained for the study by the decision of the Ethics Committee of Pamukkale University dated 24/25/2018 and numbered 24.

Informed Consent: The study was performed with 6 patients who met the inclusion criteria and gave written consent and 6 controls who were given similar consent in terms of diagnosis and sociodemographic features and selected by simple random method.

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