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Effect of drama-education for alcohol/substance user on attitudes toward violence against women: randomized controlled design

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Abstract

Background Alcohol is an important risk factor for substance abuse and violence against women. Educating alcohol users has become important in preventing violence against women.

Objectives The aim of this study is investigate the impact of creative drama education on the attitudes of male patients with alcohol and substance dependence towards violence against women.

Methods This study has a pre-test post-test parallel group randomized controlled design. This study as carried out at a treatment center for individuals with alcohol and substance addiction. The study was conducted with 35 male patients (Experimental group $n = 18$, Control group: $n = 17$) diagnosed with alcohol and substance addiction in a state hospital. Participants filled in the measurement tools before and after the training.

Results Post-intervention, the experimental group showed statistically significant improvements in total ISKEBE scores ($Z = -3.421, p = 0.001, \text{Cohen's } d = 1.44$), as well as in the subdimensions of attitudes toward the body ($Z = -3.332, p = 0.001, d = 1.30$) and identity ($Z = -3.075, p = 0.002, d = 1.18$). No significant changes were observed in the control group ($p > 0.05$).

Conclusion The findings suggest that creative drama education may have a beneficial effect on improving attitudes toward VAW among men with alcohol and substance use disorders. Further studies with larger and more diverse samples are recommended to confirm the generalizability and long-term impact of this approach.

Clinical trial number NCT05595759-10/23/2022.

Highlights

- Creative drama is a feasible method in individuals with alcohol substance use.
- Creative drama education positively increases the attitudes of individuals with alcohol substance use regarding violence against women.

Hümeýra Hançer Tok: This study was produced in the doctoral thesis.

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- Creative drama is an effective method that can be applied in psychiatric patients.

Keywords Addiction, Creative drama education, Violence against women

Introduction

The American Society of Addiction Medicine (ASAM) defines addiction as a “treatable, chronic medical disease that involves complex interactions among brain circuits, genetics, the environment, and an individual’s life experiences.” [1]. Addiction is evaluated under two main categories: behavioral and substance addiction. Approximately 2.3 million adults (33%) use alcohol worldwide and nearly 5.4% use addictive substances [2]. Having a low educational level and being single/divorced, male, or unemployed are considered risk factors for alcohol and substance addiction [3]. Men with alcohol or substance use disorders exhibit higher rates of neglect, abuse, and domestic violence against women (VAW) compared to non-users [4, 5]. Men who are followed up with the diagnosis of alcohol-substance addiction have low attitudes towards violence against women and gender. This can increase the risk of violence against women [6, 7]. In addition, the man is under the influence of addictive substances, is in a bad mood, has impulsive behavior and substance withdrawal, etc. situations can lead to an increase in controlling behaviors, financial abuse, conflict and irregular behavior on women [4, 7]. World Health Organization (WHO) defines VAW as “any situation or behavior that is gender-based and that results in physical, sexual, psychological, economic or emotional harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life” [8]. Victims tend to hide their experience of violence due to shame, lack of information about their rights, or economic reasons [9]. According to the World Health Organization, a December 2023 report by UN Women, approximately 26% of women aged 15 and older worldwide—equivalent to around 640 million individuals—have experienced physical or sexual violence by an intimate partner at least once in their lifetime. In 2023, approximately 85,000 women and girls were intentionally killed worldwide [10]. These rates tend to increase annually, and around 300–350 women are killed each year due to violence [11]. A partner’s use of addictive substances, depending on the type of addiction (alcohol, opioids, etc.), can increase the risk of violence by up to 16 times [3].

VAW causes psychological and social problems in women [12]. As previously observed, while addictive substance use by partners increases VAW, exposure to violence can also lead to addiction [9]. Therefore, it is essential to intervene in the vicious cycle of addiction and VAW. This kind of intervention can be in the form of protecting and empowering the victims of violence

or improving the perpetrators’ income level, knowledge, and attitudes [8]. Effective and efficient educational models should be used to ensure a change in attitude and behavior. Previous research has utilized various educational approaches to improve individuals’ attitudes toward violence against women (VAW), such as empowerment-based programs, digital platforms, and bystander training [13–15]. Addition, Cognitive-behavioral therapy (CBT), psychodrama, and motivational interviewing (MI) are well-established educational and therapeutic models that have been widely used to address behavioral issues such as substance use and violence. These approaches aim to foster behavioral change through mechanisms like cognitive restructuring, emotional processing, and motivation enhancement [14, 16, 17]. Unlike more clinical or therapeutic models such as cognitive-behavioral therapy (CBT), psychodrama, and motivational interviewing (MI), creative drama is a non-therapeutic, educational, and group-based approach that emphasizes role-play, self-expression, and active participation. It provides a dynamic and immersive learning environment that fosters emotional engagement, empathy, and reflective thinking. These features make it particularly suitable for raising awareness of violence against women in short-term intervention settings. Although other methods have shown positive outcomes, comparative studies assessing the unique effectiveness of creative drama remain limited, indicating a need for further research to explore its specific contributions to attitude and behavior change regarding VAW [6, 18]. Through creative drama, participants enter a created situation, experience it, and later have the opportunity to evaluate other participants while watching them during performances. Through creative drama, participants can become aware of their own bodies, emotions, thoughts, and what is going on around them. As a natural result of this learning process, students’ empathy and communication skills can increase [19–21]. Creative drama is an effective method in preparing opportunities and environments for participants to experience various interactions. This method has significant potential in health education practices [6]. It is thought that dependent individuals who are a group that needs to be supported in terms of empathy and family communication skills [22], can increase their awareness of violence against women through creative drama. In this study, it was aimed to increase the awareness of individuals addicted to alcohol and substances, and no therapeutic effects were planned. Although it has similarities with creative drama, the aim of psychodrama is to heal individuals by doing individual or group

therapy. Creative drama is an educational method that uses improvisation and role-playing to develop creativity, communication, and social skills without focusing on personal therapy. In contrast, psychodrama is a therapeutic technique where participants reenact past experiences to achieve emotional healing and psychological insight. While creative drama promotes growth and expression, psychodrama addresses deeper emotional and psychological issues [19]. Creative drama and applied theater have been applied to different groups as a productive method to positively change attitudes toward VAW [18, 23, 24]. However, no previous study has been found that has applied creative drama or any other technique to substance or alcohol-addicted individuals in the hopes of changing attitudes about VAW. The education on VAW through creative drama to drug or alcohol-addicted men can contribute to the development of awareness and positive attitudes to prevent violence within this group. Awareness and a change in attitude regarding VAW can affect overall behavior and help reduce incidents of violence [25].

Promoting a decrease and ultimate eradication of VAW can yield positive outcomes for healthcare institutions [23, 24]. The aim of this study is investigate the impact of creative drama education on the attitudes of male patients with alcohol and substance user towards VAW.

Research questions

- Does creative drama education affect alcohol and substance-dependent male patients' awareness of VAW?
- Does the education provided in routine service procedures affect alcohol and substance-dependent male patients' awareness of VAW?
- Are there discernible differences in the pre-test and post-test scores between the creative drama and routine service procedures?

Hypotheses

H1 Creative drama education has an effect on increasing awareness of violence against women (VAW) among male patients with alcohol and substance dependency.

H2 Education provided within routine service procedures does not have an effect on increasing VAW awareness among male patients with alcohol and substance dependency.

H3 There is a significant difference in pre-test and post-test scores between the experimental group receiving creative drama education and the control group receiving routine service procedure education, in favor of the experimental group.

Tools and methods

Type of research

This study was a randomized controlled trial. In this study, a **randomized controlled trial (RCT)** design was chosen to evaluate the effect of creative drama education on attitudes toward violence against women (VAW) among male patients with alcohol and substance dependency. RCTs are considered the gold standard for assessing intervention effectiveness because they minimize bias and allow for causal inferences by randomly assigning participants to experimental and control groups, ensuring that any observed differences can be attributed to the intervention itself. In this study, participants were randomly assigned to either the experimental group, which received creative drama education, or the control group, which received routine service procedures [26]. In this study, creative drama education and routine service procedures are defined as the **independent variables**, while attitudes toward violence against women are defined as the **dependent variable**. To prevent interaction effects, the control group first underwent routine service procedures after the pre-test, followed by a post-test on the ninth day. Subsequently, the experimental group received the pre-test, participated in creative drama sessions, and completed the post-test on the ninth day (Fig. 1).

Population and sample of the research

The study population comprised patients admitted to a state hospital between July 1 and October 1, 2022. The study units exclusively treated patients diagnosed with alcohol and substance dependence. Patients are admitted through an appointment system, with hospitalization dates planned in advance. They are informed by phone for admission or in emergencies they are admitted from the emergency department. The wards are therefore working at full capacity. Throughout the treatment process, patients stay in the unit for an average of 21 to 24 days and are discharged upon physician approval.

Patients diagnosed with alcohol and substance addiction, who are literate, who were over 18 years old, and who did not have acute psychotic illnesses, delirium tremens, or severe withdrawal symptoms were included in the study. In evaluating conditions such as acute psychotic disorders, delirium tremens, and severe withdrawal symptoms included in the study's participation criteria, expert medical consultation was sought to ensure the safety of participants and the validity of the intervention. Participation in the study was voluntary; therefore, patients who did not wish to participate were not included. Additionally, patients who were discharged were also not included in the study. These measures were implemented to ensure adherence to ethical standards and maintain the methodological integrity of the study. An average of 40 patients can be hospitalized in these

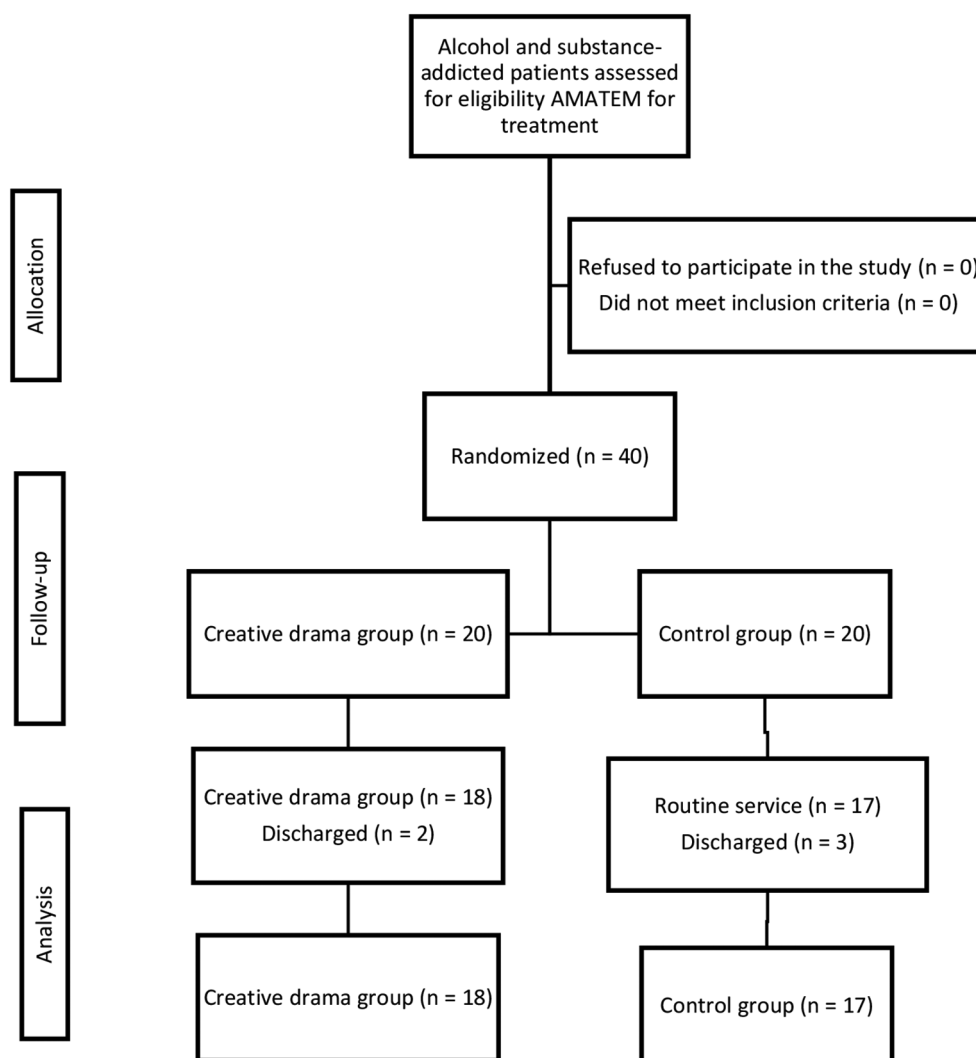


Fig. 1 CONSORT (2017) flow diagram [54]

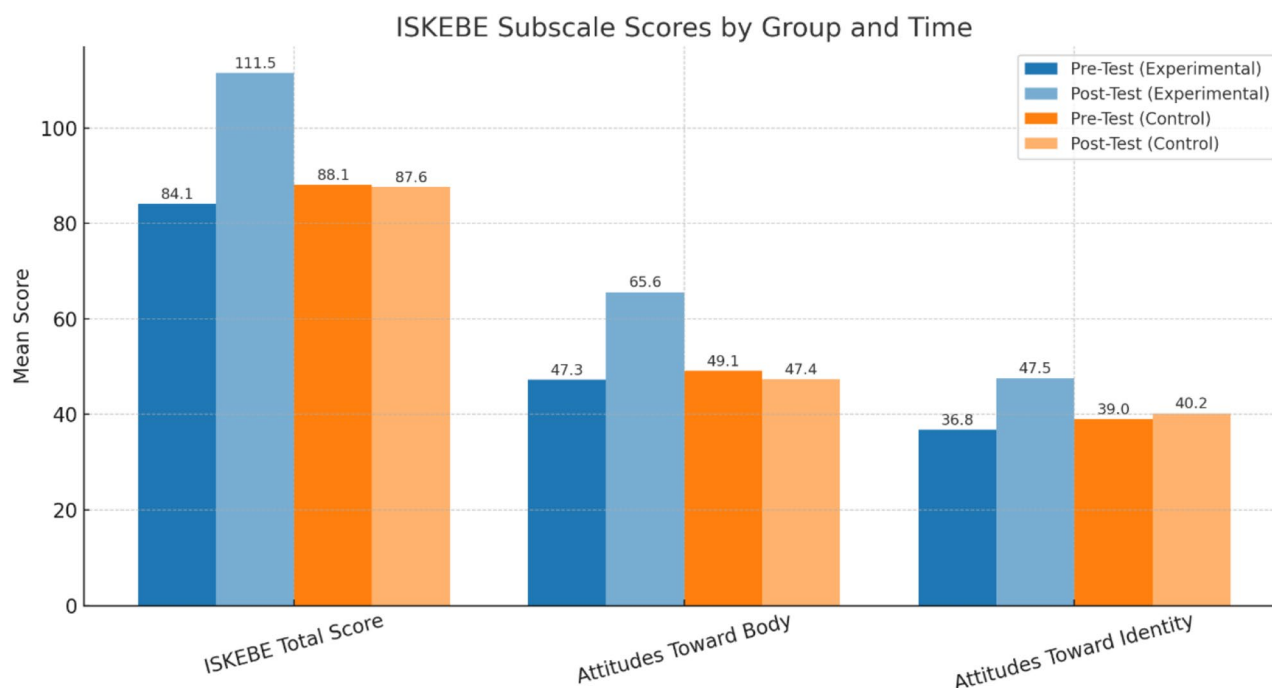
two services simultaneously. This study, sample size calculation was performed using the G*Power software [27]. The population of this study was accepted as $n=40$. The effect size of the study was calculated as $d=1.117$ [28], with a type 1 error rate of 0.05 and power of 0.90; the sample size for the two groups was calculated as $n=30$ (experimental group: $n=15$; control group: $n=15$). In experimental studies, the average attrition rate is approximately 30%; therefore, participants were invited with this consideration in mind [29]. Considering the possibility of sample loss in this study, 40 individuals (experimental group: $n=20$; control group: $n=20$) were included. During the experiment, five patients (experimental group: $n=2$; control group: $n=3$) were discharged, and the study was completed with 35 individuals.

Randomization and blinding of the research

The patients' names in the two services were arranged alphabetically and numbered after pre-tests were applied. After the numbering process, an independent expert used the website <https://www.random.org/> to assign patients to the experimental and control groups. Blinding was performed during the data collection, statistical analysis, and reporting stages of this study. The purpose of this blinding process was to determine the groups and control statistical and reporting biases [30]. The transfer of pre-test and post-test data into digital format was carried out by a nurse who was not involved in the research.

Research data collection

The research data was collected by administering the Personal Information Form and the ISKEBE-Attitude Toward Violence Against Women Scale with pre and post-test.



Graph 1 ISKEBE Subscale Scores by Group and Time

Personal information form

The Personal Information Form consists of 10 questions prepared by the researcher in line with the literature [8, 23, 24, 31].

ISKEBE-Attitude toward violence against women scale

This measuring tool, developed by Kanbay et al. in 2016, is a five-point Likert-type scale comprising of two factors and a total of 30 items. The scale has two sub-dimensions: “attitudes toward the body” and “attitudes toward identity.” Higher scores indicate an attitude about violence toward women, while lower scores indicate a lack of attitude about violence toward women. The scale has a minimum possible score of 30 and a maximum possible score of 150. Kanbay calculated the Cronbach’s alpha value for the scale to be 0.86. The scale is stated to apply to individuals aged between 15 and 65 years who are at least primary school graduates [32]. The Cronbach’s alpha value in this study was calculated as 0.87.

Pre-application

To determine the applicability, comprehensibility, and duration of the drama sessions and measurement tools, Session 1 was applied to patients who were not part of the sample ($n = 20$) before the start of the study. The study process commenced after all 20 patients had been discharged. No problem was detected regarding the comprehensibility of the sessions and measurement tools. The session duration was planned for 100 min (50 + 50 min),

and the completion time of the measurement tools was approximately 10–15 min.

Implementation of the study

The participants were notified that their involvement in the study was voluntary, and they were assured that education regarding VAW would be provided. They were also informed of their right to withdraw from the study at any point. A total of 40 patients diagnosed with alcohol and substance addiction were chosen for the study group. A pre-test was conducted with this group, and subsequently, they were randomly divided into an experimental group and a control group. In experimental studies, maintaining the internal validity of the research requires preventing the control group from being influenced by the experimental intervention. Therefore, in our study, data collection from control group participants was completed before administering the creative drama training to the experimental group. Initially, pre-tests were conducted with the control group participants, followed by the standard service procedures. After completing these procedures, post-tests were administered to the same participants. Only after the data collection process for the control group was finalized did the experimental group begin their participation. This sequencing ensured that control group participants were neither directly nor indirectly exposed to the creative drama training, thereby preserving the study’s internal validity.

Control group routine service procedures

Routine service procedures were presented to the control group. In routine service procedures, the Smoking, Alcohol, and Substance Addiction Treatment Program (SAMBA) is provided to patients. The **Tobacco, Alcohol, and Substance Addiction Treatment Program (SAMBA)** is a structured group therapy initiative developed in Turkey to combat addiction. The program aims to equip participants with knowledge and skills related to addiction and its effects, drawing primarily on Cognitive Behavioral Therapy (CBT) principles, and incorporating elements from Dialectical Behavior Therapy (DBT) and Mindfulness and Acceptance Therapy. SAMBA comprises 7 modules and 13 sessions, covering topics such as Substance and Its Effects, Motivation Enhancement, Awareness, Anger and Stress Management, Relapse Prevention, Communication Skills, and Cognitive Distortions. Each session lasts approximately 1.5 to 2 h and is conducted interactively by professionals like psychologists, social workers, and psychiatrists. The program is implemented in addiction treatment clinics, correctional facilities, and probation services. For instance, group sessions in correctional facilities focus on educating inmates about alcohol and substances, fostering motivation for change, and imparting skills to prevent relapse.

Table 1 Creative drama session and outcomes

1st Session: Introduction and bonding	<ul style="list-style-type: none">• Participants will be able to introduce themselves and others within the group setting.• Participants will be able to describe the purpose of the creative drama sessions.• Participants will be able to establish initial trust and bonding with the group and the leader.
2nd Session: Emotional recognition	<ul style="list-style-type: none">• Participants will be able to recognize and express emotions effectively.• Participants will be able to use “I” statements in communication.• Participants will be able to define key communication concepts.• Participants will be able to demonstrate empathy through role-play activities
3rd Session: Definition of violence and gender in society	<ul style="list-style-type: none">• Participants will be able to define gender identity and gender roles.• Participants will be able to define violence against women.• Participants will be able to identify different forms of violence through role-play activities.
4th Session: Recognizing the impact of violence on women	<ul style="list-style-type: none">• Participants will be able to describe different types of violence experienced by women within families and society.• Participants will be able to portray the impact of violence through role-play activities.
5th Session: Defining the consequences of violence against women	<ul style="list-style-type: none">• Participants will be able to identify emotional, physical, and psychological consequences of violence against women.• Participants will be able to explain these consequences through dramatization and discussion.

Additionally, the SAMBA Family Education program addresses the impact of addiction on families, targeting spouses, parents, and adult children of individuals with alcohol or substance use issues, aiming to enhance their ability to support their loved ones effectively. Pilot studies have indicated that the SAMBA program leads to significant improvements in managing anger and stress, preventing relapse, and reducing substance cravings, suggesting its effectiveness as a tool in addiction treatment [33]. The primary researcher of this study also participated in SAMBA educational training. In the study, a pre-test was applied to the control group. Following a nine-day interval, the post-test was conducted. The experimental group underwent creative drama training sessions every other day for a total of five sessions, and their post-test was administered on the ninth day. In order to maintain consistency in the timing of the application between the experimental and control groups, the post-test was also administered to the control group on the ninth day. Throughout the nine-day follow-up period, three patients were discharged, resulting in the control group’s application being completed with a total of 17 patients ($n = 17$). Subsequent to all the applications, brochures on “VAW” were provided to the control group, and a researcher delivered a presentation on the topic.

Creative drama education

Preparation of the researcher in the creative drama process

A drama workshop was prepared to efficiently implement the experimental group sessions. Materials used during the drama sessions were included in the workshop, such as aprons, dresses, plates, glasses, etc. The drama workshop was conducted in the common areas of the ward where patients received healthcare services. The content of the creative drama sessions was prepared by selecting situations that could be encountered in real life in accordance with the literature [9, 19, 34, 35] (Table 1). In order to determine the scope validity and applicability of the sessions, the opinions of 10 field experts were taken (2 Drama leaders, 1 Psycho-drama leader, 1 Alcohol and Drug Addiction Treatment and Research Center (AMATEM) specialist nurse, 3 psychiatry specialist physicians, 3 Nurse Dr. faculty members). The prepared sessions were evaluated by expert opinions using the Davis technique, and the content validity was calculated as being between 0.90 and 1.00 [36]. At the end of the study, five field experts evaluated the compatibility of the session and its contents with the educational outcomes.

Implementation of experimental group creative drama day

The second application was implemented for the experimental group, where the training on VAW was delivered using creative drama techniques (Table 1). The days and times of the sessions were determined according to the

Table 2 Comparison of pre-research similarities between groups

	Experimental group (n = 18)		Control group (n = 17)		Test value-significance
	n	%	n	%	
Age (X ± SS)	32.43 ± 11.4		31.60 ± 11.4		U = 114.000** Z = -0.238 p = 0.812
Education level					$\chi^2 = 0.896^*$ df = 1 p = 0.344
Elementary/high school	8	44.4	4	23.5	
Associate/bachelor's degree	10	55.6	13	76.5	
Occupation					$\chi^2 = 0.010^*$ df = 1 p = 0.921
Private sector	14	77.8	12	74.3	
Unemployed-retired	4	22.2	5	29.4	
Marital status					$\chi^2 = 4.531^+$ df = 2 p = 0.104
Married	5	27.8	10	58.8	
Single	11	61.1	7	41.2	
Divorced	2	11.1	0	0	
Children					$\chi^2 = 0.229^+$ df = 1 p = 0.632
Yes	5	27.8	6	35.3	
No	13	72.2	11	64.7	
Longest place of residence					$\chi^2 = 1.513^*$ df = 1 p = 0.219
Village-district-town	3	16.7	7	41.2	
City-metropolitan City	15	83.3	10	58.8	
Substance addicted to					$\chi^2 = 0.230^+$ df = 1 p = 0.631
Alcohol	6	33.3	7	41.2	
Substance	12	66.7	10	58.8	
Criminal history under substance influence					$\chi^2 = 0.846^+$ df = 1 p = 0.358
Yes	10	55.6	12	70.6	
No	8	44.4	5	29.4	
Domestic violence history under substance influence					$\chi^2 = 1.418^*$ df = 1 p = 0.234
Yes	4	32.2	8	47.1	
No	14	77.8	9	52.9	
Loss of employment in the last year					$\chi^2 = 2.753^*$ df = 1 p = 0.097
Yes	9	50.0	3	35.3	
No	9	50.0	14	64.7	

χ^2 = chi-square, p = 0.05 confidence interval, *continuity correction, **Mann-Whitney U Test, +Pearson's chi-square

service programs. The training content was applied as five sessions, each consisting of two hour-long lessons (50 + 50'). The SAMBA training applied in the addiction treatment process is usually carried out every other day, taking into account the hospitalization time of patients (~21–24 days) [33]. This study, both the experimental and control groups participated in the Tobacco, Alcohol, and Drug Addiction Treatment Program (SAMBA). Additionally, participants in the experimental group received creative drama training alongside the SAMBA program. Similarly, these trainings were applied every other day in this study. The pre-test was administered, and the post-test was conducted at the end of the fifth session. The researcher, who participated in two National Ministry of Education-approved 140-hour and 60-hour

creative drama certificate programs, led the sessions and was involved in the necessary situations in all stages of the study. A confidentiality agreement was made with the participants before the creative drama work. In addition, a discussion was held on the fact that there should be no judgmental, sarcastic, etc. behaviors during the events.

Creative drama sessions consisted of three stages. **Warm-up and preparation:** This stage aimed to ensure that the group got accustomed to each other, the environment, and the trainer. The warm-up preparation stage strengthened communication and trust between the group and the leader. Additionally, the warm-up games prepared the group for the role-playing activities. The content and duration of warm-up games were determined according to the other activities during the training day. In this study, the first activity of creative drama started with different greetings accompanied by music. The rhythm activity was chosen in the introduction. The warm-up games of the other sessions are Become a Mirror, Find Your Leader, Fruit Basket, etc. **Animation:** Props for the role-playing process were readily available in the room. The activities prepared at this stage were selected from real-life or potential cases using the Attitudes Toward Violence Against Women Scale as a reference. During the role-playing phase, the leader directed participants in selecting their roles and managing time. In the animation phase, pictures containing violence against women, newspaper articles or case studies were selected ("You came home tired in the evening, but your husband said that he could not prepare food and that you had problems managing with breakfast." Participants were asked to act out using techniques such as improvisation, script writing, etc. Each participant was required to play the role of a victim of violence, a victim's family member, a witness, and a perpetrator of violence—all at least once. When needed during the role-playing process, the leader acted as a participant. While one group was engaged in role-playing activities, the other groups observed. **Evaluation:** The evaluation phase consisted of open-ended questions designed to evaluate the day's activities at the end of the session. The questions were posed verbally, with an emphasis on keeping them short and clear: How have you been feeling so far? Which activity have you enjoyed/found challenging the most so far? etc [19].

The ethical dimension of the research

Written permissions were obtained from the relevant individuals and institutions where the research was conducted. Ethical approval was obtained from the Clinical Trials Ethics Committee with reference number 2022 – 131 (clinical trial number: NCT05595759).

Data analysis

The data analysis was performed using the SPSS-22 (Statistical Package for Social Sciences) software. To examine the normal distribution of the variables, tests such as Skewness-Kurtosis, Kolmogorov-Smirnov, and histogram tests were conducted. The results indicated that the data did not follow a normal distribution in some sub-dimensions ($p < 0.05$). Considering these violations, non-parametric tests (Wilcoxon signed-rank test and Mann–Whitney U test) were preferred to analyze within-group and between-group differences. The Wilcoxon signed-ranks test was employed to assess the differences between pre- and post-test scores on the ISKEBE scale. The Mann-Whitney U test was used to compare the pre- and post-test attitudes towards the ISKEBE scale and its sub-dimensions between the experimental and control groups. The effect sizes of the pre- and post-test results of the ISKEBE scale and its sub-dimensions in the experimental and control groups were calculated using Cohen's (1992) r coefficient [37]. The statistical significance level was accepted as $p < 0.05$.

Findings

The patients in the experimental and control groups were similar in terms of age, education level, occupation, marital status, children, the longest place of residence, type of substance user, criminal history while addicted to a substance, and job loss experience in the past year ($p > 0.05$).

Graph 1 here

Table 3 compares the attitudes toward the ISKEBE scale for VAW and its sub-dimensions in the pre- and post-tests of the experimental and control groups. In the experimental group, post-test scores for the total ISKEBE scale and its sub-dimensions (attitudes toward the body and identity) were significantly higher than their pre-test scores ($p < 0.01$). These results indicate that creative drama techniques effectively improved patients' attitudes toward VAW across both total and sub-dimensions. In contrast, there was no statistically significant difference between the pre- and post-test scores of the control group for any dimension ($p > 0.05$). There was no statistically significant difference between the **pre-test scores** of the experimental and control groups in the total ISKEBE scale and sub-dimensions ($p > 0.05$), indicating that both groups were similar at baseline. However, a statistically significant difference was found between the **post-test scores** of the experimental and control groups in total ISKEBE scores and the body sub-dimension in favor of the experimental group ($p = 0.0001$). No statistically significant difference was found in the post-test scores of the identity sub-dimension, although the result approached significance ($p = 0.057$) (Graph 1, Table 3).

Discussion

This study, we selected the creative drama method due to its effectiveness in enhancing participants' empathy, problem-solving, and critical thinking skills, particularly in addressing sensitive topics such as violence against women. Unlike traditional educational methods that often rely on passive information transfer, creative drama actively engages participants, making learning experiential and fostering more profound attitude changes [6, 20]. Findings indicate that creative drama education positively influenced participants' attitudes toward violence against women, leading them to adopt a more sensitive and critical perspective on such behaviors. As a result of the applied creative drama education, there was a statistically significant difference between pre- and post-test total attitude scores and sub-scales of individuals with alcohol and substance addiction toward VAW. The effect size value of the pre- and post-test statistical results of the experimental group was calculated to be above $r = 0.50$ (Table 3), which is a large effect [37]. Addicted individuals may be up to 16 times more likely to perpetrate VAW [3]. Substance addiction can significantly exacerbate violence against women (VAW) through various mechanisms. Firstly, substances like alcohol and certain drugs impair cognitive functions, leading to poor decision-making and heightened aggression, which may escalate to violent behaviors. Secondly, individuals with substance use disorders often experience heightened stress and frustration due to their dependency, potentially resulting in aggressive behaviors toward their partners. Additionally, the financial burden of sustaining an addiction can lead to economic hardships, increasing tensions and the likelihood of domestic disputes and violence. Understanding these mechanisms is crucial for developing effective interventions to reduce VAW associated with substance use [3, 38–40]. Despite these risks, few studies have examined addicted individuals' attitudes toward VAW. However, creative drama/theater education has been applied to teacher candidates, adolescents, women, university students, and young adults to develop an awareness of positive attitudes VAW [6, 18, 24]. Barham and Barham (2020) showed that theater enhances women's empowerment and self-expression, while Doria (2024) demonstrated its positive impact on health outcomes among migrant populations [41, 42]. In addition to creative drama, other methods have been employed to enhance awareness of violence against women (VAW). Forum Theatre has proven effective in helping participants critically examine gender roles and address situations involving violence, thereby contributing to the reduction of VAW [43]. Furthermore, integrating specific programs into educational curricula has successfully improved students' attitudes toward VAW. These programs encourage active student participation and

Table 3 Intra-group and inter-group comparison of ISKEBE attitude score toward violence against women among dependent individuals in the experimental and control groups

Scales	Group	Pre-test				Post-test				Test and significance		
		Min.	Max	X ± ss	Median	IQR-3	Min.	Max.	X ± ss	Median	IQR-3	Z*, p, d
ISKEBE scale	Experimental	44	114	84.11 ± 19.0	85.00	97.25	71	136	111.50 ± 18.8	116.00	124.75	Z=-3.421 p=0.001** d=1.44
	Control	57	119	88.11 ± 15.5	87.00	102.00	57	109	87.64 ± 15.6	90.00	100.00	Z=-0.685 p=0.493 d=0.03
Test and significance	U* p d	U=145.500 p=0.807 d=0.16				U=46.000 p=0.0001** d=1.38						
ISKEBE scale- attitudes toward the body	Experimental	20	74	47.27 ± 14.5	48.50	59.00	33	80	65.61 ± 13.6	69.00	76.00	Z=-3.332 p=0.001** d=1.30
	Control	30	65	49.11 ± 9.8	59.00	55.50	29	61	47.41 ± 9.2	49.00	54.00	Z=-1.369 p=0.171 d=0.17
Test and significance	U* p d	U=143.500 p=0.754 d=0.14				U=41.500 p=0.0001** d=1.50						
ISKEBE scale- attitudes toward identity	Experimental	24	50	36.83 ± 7.2	37.50	44.00	33	70	47.55 ± 10.2	44.50	55.50	Z=-3.075 p=0.002** d=1.18
	Control	28	50	39.00 ± 7.3	40.00	46.00	28	49	40.23 ± 6.6	40.00	46.00	Z=-0.475 p=0.635 d=0.18
Test and significance	U* p d	U=127.500 p=0.405 d=0.29				U=95.500 p=0.057 d=0.81						

*Wilcoxon signed-rank test, **p < 0.05, +Mann-Whitney U test; d = effect size; Z = test value

foster collaboration with the community, leading to positive outcomes in addressing and preventing gender-based violence [44].

In addition, with regard to applied and forum theatre it is suggested that it is a promising method of primary, secondary and tertiary protection for partner violence, and that it should be practiced in different culture-groups [5, 18]. In a study conducted with young adults, it was found that the use of creative drama should be widespread in the education given about violence toward a partner [18]. Real learning in creative drama (features) occurs during the enactment and evaluation stages. In this study, the roles regarding VAW given to the participants by the training leader were carried out using dramatic techniques during the enactment sessions. At this stage of the training, the participants performed in mock situations using their past VAW experiences, knowledge, and attitudes. Creative drama is an effective method for individuals to develop empathy and awareness. In this process, participants assume different roles, allowing them to experience various perspectives and thus enhance their empathetic abilities. Additionally, by expressing their emotions, they gain the opportunity to understand both their own feelings and those of others. Through collaboration during group activities, they reinforce their social skills and increase their societal awareness [19, 34]. Creative drama is an effective method for altering participants' attitudes, particularly by activating various cognitive and emotional processes during the enactment of scenarios involving violence. By assuming different roles, participants experience others' perspectives, thereby enhancing their empathy and perspective-taking skills. This process aids individuals in better understanding the emotions and thoughts of others [45, 46]. Additionally, portraying emotionally charged scenes in creative drama elicits participants' emotional responses, which reinforces learning retention and supports attitude change. These experiences align with social learning theory, contributing to individuals acquiring new behaviors through observational learning. In conclusion, creative drama serves as an effective tool that engages participants' cognitive and emotional processes, promoting attitude changes through empathy, perspective-taking, and emotional engagement [45–48]. During the animation phase, the participants portrayed a woman who was exposed to violence, a man who committed violence, or a child/adult who witnessed the event in the environment. In this animation process, participants stage the violent event and situation using improvisation-role-playing techniques, act out the moment, empathize and communicate. Participants have the opportunity to evaluate the event or situation both as a spectator and as an experience. This multidimensional assessment can contribute to the participants' awareness of violence against women and their

adoption of a positive attitude [6]. During the evaluation phase, the participants share their experience with the group and the leader about the incident and situation of violence. During evaluation phase, the leader helped reinforce positive attitudes toward violence during the enactment by participants and attempted to turn negative attitudes into positive ones by providing feedback [18, 19]. Promoting a shift in the favorable attitudes of individuals grappling with alcohol and substance addiction towards VAW can enhance their awareness. The increased awareness of those addicted to drugs and alcohol of VAW can contribute to reducing violent cases and help reduce injury and death [25]. Therefore, providing creative drama training to addicted individuals to bring about positive attitude changes toward VAW is a desired outcome.

In this study, no education other than routine in-service operation training was given to addicted individuals in the control group. As a result of this research, no effect of in-service operation training applied on alcohol and substance-addicted individuals' attitude scores toward VAW was determined. The effect size value calculated according to the pre-and post-test statistics results for the control group is between $r=0.10$ – 0.33 . This value implies a small to moderate effect [37] (Table 3). **SAMBA** (Tobacco, Alcohol, and Substance Addiction Treatment Program) is an educational program used in Turkey as part of efforts to combat addiction. All patients participating in AMATEM services were required to complete the SAMBA education program. The program aims to provide participants with knowledge and skills on topics such as the effects of substance use, motivation, awareness, anger and stress management, relapse prevention, communication skills, and cognitive distortions [33]. There are a limited number of studies in the literature examining the effectiveness of the SAMBA program. A pilot study demonstrated that the program was effective in improving treatment adherence among individuals with substance use disorders [49]. The SAMBA education program aims to prevent addiction, combat addiction, and prolong remission. However, broader research is needed to confirm the generalizability of these findings [33]. In our study, no significant change was observed in the control group's attitudes toward violence against women (VAW) following the SAMBA program. This situation may stem from the program's content not adequately addressing the issue of violence against women (VAW). The SAMBA program primarily focuses on substance addiction and offers limited coverage of specific topics such as VAW [33]. Therefore, its insufficiency in altering attitudes toward VAW is an expected outcome.

Within this study, the control group received routine service procedures related to VAW, which consisted of in-clinic training integrated into their addiction treatment.

On the other hand, the experimental group underwent creative drama education. The outcomes revealed that creative drama education surpassed routine service procedures in fostering more positive attitudes towards overall VAW, particularly concerning violence towards the body (sexual-physical) in relation to VAW. The effect size value derived from the final test scores of both the experimental and control groups exceeded a large effect size of $r=0.50$, indicating a substantial impact (Table 3). Although no studies exist with dependent individuals, studies conducted on different groups have demonstrated the superiority of creative drama in communication, empathy, and assertiveness skills [50]. Determining the topics, content, teaching method, and effective communication skills in education regarding VAW is essential. Creative drama is a modern method that provides opportunities to learn by experiencing through live enactment, and it is learner-centered, providing opportunities for observation and application [34]. In this method, participants are a part of the event/situation and experience all processes. However, creative drama education applied to dependent individuals was not found to be superior in terms of increasing positive attitudes toward identity-based violence. The effect size calculated between the final test score averages for identity-based violence was at a medium effect size level ($r=30$) (Table 3). Participants' lack of awareness of economic and emotional violence may have led to insufficient attitude change. This may be due to society's inadequacy in defining, understanding, and interpreting emotional and economic violence [51]. One reason the intervention may have had less impact on identity-based attitudes is the deeply rooted nature of cultural norms and internalized gender beliefs. Individuals begin to absorb societal expectations regarding gender roles from an early age through family, education, media, and religious teachings. Over time, these beliefs become embedded in personal identity and worldview, making them more resistant to change compared to attitudes toward specific behaviors such as emotional or economic violence. Furthermore, in many societies, including the cultural context of this study, traditional gender norms are not only widespread but also socially reinforced, often perceived as natural or inevitable. As a result, interventions targeting these identity-based beliefs may require more intensive, longer-term strategies to promote critical reflection and gradual transformation. Brief educational interventions, while effective at raising awareness of overt forms of violence, may not be sufficient to shift deeply internalized constructs related to gender identity and role [52, 53]. Creative drama serves as a powerful tool in this context by allowing participants to engage in role-playing and experiential learning, thereby fostering empathy and encouraging critical examination of entrenched social norms [6]. Through

such interactive methods, individuals can challenge and potentially transform their perceptions of acceptable behavior, promoting greater awareness and sensitivity toward all forms of abuse..

Conclusion

The study observed that, in the short term, creative drama applied to individuals with alcohol-substance addiction was associated with an increase in positive attitudes toward violence against women, total violence against the body, and identity. However, further research with long-term follow-up is necessary to confirm the sustainability and extent of these effects. After the training, it was found that, compared to routine service procedures for VAW education, creative drama education showed superiority in increasing positive attitudes toward VAW and total violence against the body. Still, no significant difference was identified in attitudes toward identity. Although this study did not collect qualitative data, the participants in the study were unexpectedly eager to participate in the warm-up resuscitation and evaluation phases. During the animation process, participants utilized the available equipment materials to assume the roles of women exposed to violence, employing their voices, facial expressions, and gestures in ways that aligned with the behaviors associated with these roles.. With these aspects, it is thought that creative drama education can be used in individuals diagnosed with addiction. It is important to apply education about VAW to individuals diagnosed with alcohol-substance addiction as they are a significant risk group for this kind of violence; it is also essential to use interactive teaching methods in the education provided. In this direction, it is recommended that the study should be carried out longitudinally quantitative-qualitative studies with a larger sample and that these trainings should be regularly applied with creative drama in addiction treatment clinics-spring centers in order to ensure permanence. To assess the long-term sustainability of this effect, a one-year longitudinal study is recommended. Future research should consider integrating qualitative methods, such as participant reflections or thematic analysis, to gain deeper insights into the mechanisms driving behavioral change in drama-based interventions.

Limitations of the study

In this study, assessing the impact of creative drama training solely through self-report scales and questionnaires introduces certain methodological limitations. Self-report methods rely on participants' direct expressions of their behaviors, attitudes, and emotions. However, these methods are susceptible to social desirability bias, where participants may alter their responses to align with societal norms, thereby compromising data reliability.

Additionally, self-report data may not accurately capture actual behaviors, as they depend on participants' perceptions rather than objective observations. To address these limitations and achieve a more comprehensive evaluation, integrating qualitative assessment methods is recommended. In-depth interviews and focus group discussions can provide detailed insights into participants' experiences and perceptions of the training process. Furthermore, observational analyses allow for the direct assessment of participants' behaviors and interactions during the training, offering objective data on behavioral changes. Incorporating these qualitative methods alongside quantitative tools in future research will enhance the validity and depth of evaluations regarding the effectiveness of creative drama training. The study's scope is constrained by its participant pool. Although G power, which is a valid method in sample selection, was used, the number of samples was low. To prevent any potential group interaction, the control group received the first application, while the experimental group received the second. During the study, a sample loss of $n=5$ occurred due to the discharge of patients who, with physician approval, had successfully completed the 21- to 24-day treatment process.

Strengths of the study

One of the researchers possesses creative drama and SAMBA training certificates. In addition, the researchers have previously conducted studies on creative drama, addiction, and VAW. The measurement tools employed in the study demonstrate validity and reliability. The forms and sessions developed by the researchers were derived from relevant literature and incorporated expert opinions. Furthermore, validity indexes were calculated to assess the scope of validity. A pre-application procedure was employed with individuals diagnosed with alcohol-substance addiction with measurement tools and a sample session before the study. Blindfolding was performed during data collection, statistics, and reporting. At the end of the study, brochures prepared by the researchers were distributed to the participants in the control group.

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Author contributions

HHT, MTK: Conceptualization, Data curation, Formal analysis, Writing - original draft. HHT, MTK: Conceptualization, Investigation, Writing - original draft. HHT, MTK: Investigation, Data curation, Writing - original draft. HHT: Investigation, Formal analysis, Writing - original draft. HHT: Supervision, Writing - review & editing. All authors approved the final manuscript for submission.

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Data availability

All data generated or analysed during this study are included in this published article.

Declarations

Ethics approval and consent to participate

Written permission was obtained from the Bolu Abant İzzet Baysal University-Human Research Ethics Committee (No. 2022 – 131). Verbal and written consents were obtained from the participants to participate in the study. This study has been prepared in accordance with the Declaration of Helsinki.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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