



## Effect of Psychodrama on Reducing High-Risk Behaviors in Unsupervised Adolescence

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### ABSTRACT

**Introduction** Adolescents who have been deprived of family support for various reasons are more likely to be in vulnerable groups in society, resulting in more risky behaviors. This study aimed to determine the effectiveness of psycho-drama in reducing high-risk behaviors in unsupervised adolescent boys.

**Materials & Methods** This study was a quasi-experimental pretest-posttest design with a control group. The statistical population consisted of unsupervised teenage boys between the ages of 12-13, who were studying in the sixth grade in Zanjan in the 2018-2019 academic year. 40 students were selected by purposive sampling and substituted in two equal groups as experimental and control groups. The main tool was the Youth Risk Behavior Surveillance System (2013). Psychodrama intervention was performed for 9 sessions (each session 90 minutes) for the experimental group, but the control group received no intervention. At the final session, both experimental and control groups received a posttest. Data were analyzed using analysis of covariance by SPSS23.

**Findings** Results showed a significant difference between the two groups in the posttest phase ( $p < 0.05$ ). Psychodrama decreased high-risk behaviors in the experimental group. The percentage of these changes based on the Eta-square was 41.3%. Also, according to the results, Eta-square of components was 37% for the smoking, 32% for the alcohol; 17.9% for the psychotropic; 36.3% for aggressive behaviors, 35.3% for thinking and committing suicide, 30.5% for escape component, and 35.5% for relationship the opposite sex ( $p < 0.05$ ).

**Conclusion** According to the findings, it can be concluded that psychodrama is an effective adjunctive therapy to reduce the symptoms of high-risk behaviors of unsupervised adolescent boys, and it is recommended to counselors in preventing psychological damage in schools.

**Keywords** Psychodrama; Health Risk Behaviors; Adolescent

### CITATION LINKS

- [1] A guide for teachers, parents and ... [2] Health-risk behaviors and protective factors among adolescents in rural British ... [3] Risk-taking behavior in adolescence: A literature ... [4] Country cooperation strategy for WHO and the Islamic Republic of Iran ... [5] Young adolescents' wellbeing and health-risk behaviours: Gender and ... [6] Father-and youth-reported family affective expression differentially predicts youth internalizing and ... [7] The associations of adolescents' dating violence victimization, well-being and engagement in risk ... [8] The effects of Psychodrama on young adults' attachment ... [9] The effect of group-based psychodrama therapy on decreasing the level of aggression in adolescents [10] Drama therapy techniques in one-to-one treatment with disturbed children and ... [11] Focus group discussion—Psychodrama in corporate environment: Leverage of investigation of employees' origins of dissatisfaction within ... [12] The role of self-esteem and fear of negative evaluation in compulsive ... [13] Psychodrama as a preventive measure: Teenage girls confronting ... [14] Analytical Psychodrama with adolescents suffering from psycho-behavioral disorder: Short-term effects on psychiatric ... [15] Combining schema-focused cognitive therapy and Psychodrama: A model for treating clients with personality ... [16] Research methods in ... [17] Construction and assessment of psychometric features of Iranian adolescents ... [18] The effects of psychodrama on young adults' attachment ... [19] Enhancing treatment effectiveness: Using Psychodrama to address the trauma and pain of victims and ... [20] The influence of Psychodrama on promoting self-disclosure in groups of university ... [21] The effects of Psychodrama on the health of adolescent girls: A ...

## Introduction

Adolescence is a transitional phase between childhood and adulthood. It is a period of biological, social, emotional, and cognitive development that can lead to adulthood's emotional and behavioral problems if the adolescent does not pass it satisfactorily [1]. Although there is no consensus on the age of onset and end of adolescence and may have different beginnings and endings in different cultures and societies, what is certain is that adolescence is a phase between childhood and adulthood, age 10–19 years, and this transitional phase requires a great deal of care and attention because it is accompanied with biological, social, emotional, and cognitive growth and meanwhile, derelict or single supervisor adolescent, show less affection, compared to normal adolescent, as well as in mental health, they have more problems with mood and adaptation [2].

Inappropriate behaviors, health risk factors, and negative consequences of this period can pose a serious threat to one's health throughout life. Among these behaviors are high-risk behaviors. High-risk behavior is a practice in which there is a potential loss that is naturally capable of becoming an actual loss. Many psychological factors and other characteristics such as poor self-regulation, impulsivity, novelty seeking, high negative affect, and poor risk perception have been implicated in high-risk behaviors [3]. Around 1.2 billion people, or 1 in 6 of the world's population, are adolescents aged 10 to 19. Most are healthy, but there is still substantial premature death, illness, and injury among adolescents. According to the WHO "Country Cooperation Strategy", the major risk factors among Iranian adolescents are risky sexual behaviors, violence, illicit drug use, tobacco use, mental health problems (e.g., anxiety, depression, and stress), unhealthy dietary behaviors, and physical inactivity [4]. Many high-risk behaviors, such as cigarette smoking, substance abuse, and unprotected sexual intercourse, occur before 18 [5]. Rabinowitz, Osigwe, Byrne, Drabick, and Reynolds [6] also discuss the role of family cohesion and emotional relationships within families and their impact on adolescents' attitudes in committing high-risk behaviors. Van Ouytsel, Ponnet & Walrave [7] in their study of adolescents who have started alcohol abuse from an early age (as a high-risk behavior) or who have sabotaged so far, have shown that they are more likely to be victims of violence, typically associated with low self-esteem and depression.

Therefore, therapeutic measures are necessary in this regard. Several interventions have been proposed and evaluated so far to intervene in cognitive and behavioral problems in adolescents at risk. Meantime, Psychodrama is one of the approaches that seem to have the potential to intervene in this area. Psychodrama is a group

psychotherapy designed to promote cohesion and cognitive structure about the emotional experience in theatrical performance [8].

In Psychodrama, one is helped to visualize and play a problem, instead of just talking about it (conventional psychotherapy), review the problem, and find an appropriate solution. By engaging in physical activity levels, one becomes easier to accept and access their inner and emotional worlds. In other words, it is more realistic when thought is visualized, and others are watching and accepted it. [9]. The efficacy of Psychodrama on many behavioral and emotional problems has, so far, been studied and confirmed. Among these areas are the reduction of aggression [9], anxiety and depression [10], identifying the source of dissatisfaction, changing perceptions about stressful workplace conditions [11], reducing mental problems [12], improving self-confidence, and skills rehabilitation in reducing anxiety [13], reducing emotional behavior disorders [14] and personality disorders reduction [15].

Therefore, according to the rate of high-risk behaviors in adolescents and its complications and the effective role of Psychodrama in reducing it, and the lack of studies in this field, a study was designed with the stated purpose.

## Materials and Methods

This study was a quasi-experimental design as pretest-posttest with a control group. The statistical population consisted of unsupervised teenage boys in the ages of 12-13, studying in the sixth grade in Zanjan in the academic year of 2018-2019. From three schools in the suburbs area in Zanjan. Forty students were selected by purposive sampling and randomly substituted in two equal groups as experimental and control groups. They were considering that in experimental studies, the minimum sample for each group of 15 people has been suggested [16], to be sure, in this study, the sample of the present study included 40 adolescents. Lack of medical history, lack of two consecutive sessions or three non-consecutive sessions of absence during the training, ranges 12-13 ages, and satisfaction and desire to participate in meetings were among the criteria for inclusion in the study. Also, as the research questionnaire was incompletely completed, the subject was excluded from the study.

### Research tools

In this study, the Iranian Adolescents Risk-Taking Scale (IARS) was used to measure high-risk behaviors, designed and standardized by Zadeh Mohammadi *et al.* In 2011 [16]. This questionnaire has 38 items. The overall score of this questionnaire will be from 38 to 190. Higher scores indicate a higher risk of a responsive adolescent and vice versa. Its purpose is to measure the level of risk in adolescents from different dimensions. The scoring

method is based on the Likert spectrum of five options (1, 2, 3, 4, 5) from strongly disagree to agree [16] strongly. This questionnaire has seven components: Cigarette and hookah smoking, alcohol consumption, psychotropic use, aggressive behaviors, thinking and committing suicide, Escaping, and relationship with the opposite sex. The method of scoring this questionnaire is easy and specific sections can be used according to the situation. The questionnaire is self-administered. Each section includes questions about first doing high-risk behaviors, lifetime risk behaviors, last 6 months and one last month, and willingness to do so in the future. In the present study, the high-risk behaviors test's reliability was calculated by an eta alpha coefficient of %64. Correlation coefficients were used to assess the validity of the high-risk behavior questionnaire so that the correlation of each question with the total score of the questionnaire was calculated. Results indicated that all items had a significant relationship with the questionnaire's total score ( $p < 0.001$ ). Besides, correlation coefficients ranged from %26 to %47.

**Executive procedure**

After selecting 40 students from two elementary schools in Zanjan, they were divided into two groups: the experimental and control groups. The

pretest was then administered to the experimental and control groups. The Independent variable was administered for the experimental group (Psychodrama intervention) for 9 sessions during 5 weeks and 2 sessions per week. Each treatment session was considered 90 minutes, with the first 10 minutes devoted to preparing students, consulting with parents, and 80 minutes to therapeutic games. For replication and review, the pre-session exercise was repeated in the next session, and the dependent variable was measured for both groups under the same conditions. The experimental group underwent psychodrama interventions. Nevertheless, the control group received no intervention. At the final session, both experimental and control groups performed posttest.

**The content of the intervention sessions**

The purposes and content of the psychotherapy sessions are shown in table 1. All these principles and goals of psychodrama intervention have been applied in the present intervention and directed by researchers.

Research data were analyzed using descriptive statistical and inferential methods such as Kolmogorov-Smirnov tests, Box, Levine, and covariance analysis using SPSS 21.

**Table 1)** The content of psychodrama intervention therapy sessions

Session	Session purpose/Title	Session content
First	Introduction/preparation and creating a spontaneous atmosphere, and a sense of trust, confidentiality, and security by the leader	Introducing the group and the need for trust and confidentiality in the group, reviewing the goals and roles, as well as the timing, structure, and rules of the meetings, using the ball-throwing technique to introduce themselves
Second	Failure and how to deal with failure / Learning how to deal with failure	Choosing a first-person or a protagonist, then talking to the first person about his or her main issue until the first person's issue was clearly made clear to the group, and then a dance technique was used during the warm-up phase. In the dance technique, the director asks members to create a circle, jump with their legs, and dance as severely as possible.
Third	Discovering the hidden components of first-person problem/ emotional extrusion, especially anger, and managing and extrude emotions.	This session includes writing techniques with a non-dominant hand and talking about emotional extrusion, especially anger, and managing and extruding emotions for members.
Fourth	Happiness-misfortune technique/familiarity with self-esteem and capability review	Implementation of the Happiness-misfortune technique session and talk about self-esteem and capability review.
Fifth	The Magical Shop Technique / The Importance of Trusting in God	Implementation of the magic shop technique and trusting in God
Sixth	Applying the magic shop technique and trusting in God	Applying a storytelling technique and then talking about one of the life skills of dealing with anxiety and how to manage it and the physical and mental symptoms of anxiety
Seventh	Problem Solving Skills and Conversation Skills Empowerment / Training Problem Solving Skills and Conversation Skills	Talking about problem-solving skills and conversation skill
Eighth	Courage and Self-Defense Skills / Learn the skills of courage and self-defense	Start a warm-up session or stage and then talking about courage and self-defense skills
Ninth	Hope box / Increase hope and the importance of purpose in life	Start a warm-up session or stage with advertising technique, then talking about life purpose and hope

**Findings**

As mentioned, the adolescents in this study were in the age range of 12 to 13 years. About 46% were 12 years old, and 54% were 13 years old. All of their fathers were either in prison or did not live with them due to addiction. Descriptive findings by experimental and control groups separation (each group of 20) related to the main research variable are listed in table 2. This table's findings show that the mean scores associated with the different components of high-risk behaviors were significantly reduced after the intervention, whereas the improvement in scores in the control group was not significant.

**Table 2)** Descriptive data of study groups related to high-risk behaviors

Group	Number	Pre-exam (Mean±SD)	Post-test (Mean±SD)
<b>Cigarette and hookah smoking</b>			
experiment	20	9±1.59	7.4±1.64
Control	20	8.7±1.72	8.5±1.67
<b>Alcohol consumption</b>			
experiment	20	2±1.21	1.4±0.94
Control	20	2.6±2.6	2.5±2.31
<b>Use of psychotropic substances</b>			
experiment	20	0.1±0.31	0.1±0.22
Control	20	0.2±0.37	0.4±0.49
<b>Aggressive behaviors</b>			
experiment	20	15.8±4.32	10.7±2.94
Control	20	14.5±3.85	14.1±3.8
<b>Thinking and committing suicide</b>			
experiment	20	0.9±0.59	0.6±0.6
Control	20	0.9±0.55	0.8±0.55
<b>Escape</b>			
experiment	20	2.3±1.21	1.8±0.89
Control	20	2.4±1.35	2.5±1
<b>Relationship with the opposite sex</b>			
experiment	20	3±2.09	3±2.09
Control	20	3.8±1.74	3.9±1.76
<b>Total score</b>			
experiment	20	32.5±6.53	26.5±4.2
Control	20	32.5±6	32.3±5.64

The descriptive results of Table 1 show that the mean scores associated with different components of the high-risk behavioral variable after the intervention decrease, while this improvement in scores in the control group does not decrease. Next, to analyze and test the research hypothesis, the covariance test's assumptions were first examined. Kolmogorov-Smirnov test was used to check the normality of the distribution of scores. These test results showed that the data distribution assumption's normality is maintained about the research variable at both test times (p>0.05). Then, the Box test was used to test the assumption of homogeneity of variance-covariance of the study, given that the value obtained is greater than the 5% error level (0.08>0.05), the variances of the experimental and control groups are congruent.

The Levin test was also used to test the assumption of homogeneity of variance that was not rejected, and the assumption of homogeneity of the regression slope have regarded. Finally, as described in Table 3, one-way analysis of covariance was used to examine the linearity of the correlation between the covariates, and the independent variables and findings showed that the probability value is lower than the 5% error level (0.05>0.007) and the F value of the co-variable is significant. It is concluded that the assumption of linearity of the covariance and the independent variable is established.

Considering the assumptions of a statistical test of covariance analysis (normality of data distribution, the linearity of relationship, homogeneity of covariance, and homogeneity of variance), it is possible to use the covariance analysis method to analyze and test research hypotheses described in Tables 4 and 5 used. The results of table 4 indicate that the difference between the estimated means associated with high-risk behaviors between the control and experimental groups in the posttest (group membership) is significant (p<0.05), and thus the research hypothesis is confirmed. Also, considering the effect (both pretest and group) obtained in the table, it should be noted that Psychodrama was able to reduce the high-risk behaviors of unsupervised adolescent boys, that the percentage of these changes is 41/3%, based on the eta-square (effect rate).

Also, considering the effect (of both pretest and group) obtained in the table, it should be noted that Psychodrama was able to reduce the high-risk behaviors of unsupervised adolescents, such that the percentage of these changes based on the eta squared (the effect) was 37% for the smoking and hookah, 32.7% for alcohol, 17.9% for psychotropic substances, 36.3% for aggressive behaviors, 35.3% for thinking and committing suicide, 30.5% for escaping and 35.5% for the relationship to opposite sex component.

**Table 3)** One-way covariance analysis to examine the linearity of the correlation between the correlation variable and the independent variable

Change Source	Sum of squares	Df.	Average of squares	F	Sig.
high risk behaviors	330.62	1	330.62	13.383	0.007

**Table 4)** Results of Covariance Analysis of the Impact of Psychodrama on Reduction of High-risk Behaviors in Unsupervised Adolescents

High-risk behaviors	Sum of squares	F	Sig.	Eta Squared
pre-exam	157.5	7.612	0.024	0.174
Group membership	722.025	13.49	0.003	0.413

**Table 5)** Results of covariance analysis of the impact of Psychodrama on reducing high-risk behaviors of adolescent males by separating its constituent components

Statistical indices of variables	Sum of squares	F	Sig.	Eta Squared
<b>Cigarette smoking</b>				
Pre-exam	199.025	4.329	0.012	0.296
Group membership	214.400	5.472	0.009	0.370
<b>Alcohol consumption</b>				
Pre-exam	115.625	5.871	0.025	0.179
Group membership	262.500	7.987	0.011	0.327
<b>Use of psychotropic substances</b>				
Pre-exam	162.225	4.338	0.031	0.114
Group membership	219.025	5.903	0.010	0.179
<b>Aggressive behaviors</b>				
Pre-exam	131.020	5.425	0.024	0.167
Group membership	144.345	6.277	0.016	0.363
<b>Thinking and committing suicide</b>				
Pre-exam	230.010	6.935	0.015	0.125
Group membership	369.005	9.616	0.001	0.353
<b>Escape</b>				
Pre-exam	135.900	5.953	0.022	0.222
Group membership	192.775	6.945	0.015	0.305
<b>Relationship with the opposite sex</b>				
Pre-exam	160.200	6.542	0.017	0.202
Group membership	348.575	8.446	0.001	0.355

**Discussion**

The purpose of this study was to determine the effectiveness of Psychodrama in reducing high-risk behaviors in unsupervised adolescent boys. Findings in the previous section indicated that Psychodrama reduced the risk behaviors of unsupervised adolescents, with the percentage of these changes based on the eta squared is %3.61. This finding is consistent with research by Karatas and Gokcakan [9] (on the effect of Psychodrama on aggression reduction), Dunne [10] (the effect of Psychodrama on anxiety and depression reduction), Anselme *et al.* [11] (the effect of Psychodrama on identifying and reducing discontent and changing perception about stressful workplace conditions), and Gatta *et al.* [14] (the effect of Psychodrama on emotional behavior disorders). In these studies, eta coefficients or the magnitude of the intervention's effect have not been reported. This hypothesis can be inferred that unsupervised adolescents have a greater potential for developing high-risk behaviors because of their particular life situation, so attention should be given to interventions that can help reduce this risk. Karatas and Gokcakan's [9] research aimed to examine the effect of group-based psychodrama therapy on adolescents' aggression levels. Their results showed that the interventions affected the

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experimental group in terms of total aggression, anger, hostility, and indirect aggression scores, but there was no effect of the group-based treatment on verbal or physical aggression scores. It seems individual intervention besides group-based Psychodrama is necessary to modify their problems. In her research paper, Dunne [10] reported the intensive, long-term psychotherapy of an adolescent, severely abused in childhood, who remembered her abusive experiences although devoid of any effect. She was agoraphobic and unable to sustain intimate relationships. This paper describes how, during this long-term psychodrama therapy, she used improvisational acting techniques to access and integrate those repressed effects.

Consistency of the results of this research with Anselme *et al.* [11] showed that Psychodrama may be an effective tool to restore unhealthy corporate atmosphere and help employees discern the origin of their dissatisfaction and change their perception about stressful situations prevailing in their workplace.

The other consistency of this research's results with Gatta *et al.* [14] showed the same therapeutic efficacy of analytical psychodrama groups for psychiatric adolescents. Findings were compared with those of a clinical control group. Results demonstrated the efficacy of the treatment in terms of symptom reduction, with statistically significant differences by comparison with the control group. On the other hand, following the findings and the positive and significant effect of Psychodrama on reducing high-risk behaviors of adolescent males based on separating its components (alcohol, psychotropic drug use, aggressive behaviors, thinking and committing suicide, escape and relationship with the opposite sex), it can be argued that most areas of high-risk behaviors, including drug, alcohol and smoke abuse, and extracurricular communication in unsupervised children, originate from aggression [9], Anxiety and depression [10], etc., that by relying on Psychodrama the teen is allowed to appear and express his hidden thoughts and motivations on stage, that facilitate the release of confined emotions and block the way to enter negative thoughts and emotions that can typically lead to a variety of high-risk behaviors by enhancing self-esteem, social skills, and success in building positive and effective social relationships.

Psychodrama intervention typically increases one's ability to deal with their problems and prepare the ground for extruding emotions [12], as well as the development and flourishing the factors such as emotion, perception, cognition and imagination, and relaxation reconstruction and psychological balance [18] which can have a positive impact on reducing the high-risk behaviors of unsupervised adolescent boys. Also, since Psychodrama resolves severe conflicts in a safe scene or space, this can drain possible negative emotions and reduce aggression.

Also, as Rabinowitz *et al.* [6] suggest, as the role of family cohesion and emotional relationships within families on adolescent attitudes is important in high-risk behaviors, Psychodrama may also be useful in improving adolescent attitudes toward their families. Also, Van Ouytsel *et al.* [7] suggest that high-risk behaviors in adolescents are directly related to self-esteem and depressive symptoms; thus, psychodrama intervention can improve these two psychological variables eliminating high-risk behaviors in adolescents.

Pramann [19] also points out that using Psychodrama in expressing one's suffering leads to better coping with trauma and prevents the creation of incompatible schemas, and one can better cope with the events that have happened to him. Moreover, this can certainly have a positive impact on reducing his high-risk behavior. Also, in the opinion of Moreno *et al.* (2000), if a person knows that the therapist will tolerate the outflow of inner thoughts and emotions in any way, he or she will willingly display them and achieve peace, and it is important to prevent aggression and risk behaviors shortly.

Another result of this study is consistent with the results of the Çam study [20]. It was confirmed that Psychodrama increased university students' self-disclosure scores. As the students evaluated their interpersonal communication skills during this period, they became aware of their need for developing higher communication skills. The author concludes that awareness of communication skills was raised via Psychodrama and that Psychodrama is a useful method for increasing and developing self-disclosure.

Some of the results of this study are slightly different from the results of other studies. Daemi *et al.*'s [21] research showed that psychodrama interventions did not cause any significant self-defense changes, emotional transparency, physical and verbal aggression, and educational self-esteem. As adolescent's identity develops, they compare themselves to healthy, active peers and adults. The limitations produced by the preventive regimen or medication may make the adolescent feel defective or different. So, the appealing nature of Psychodrama is attributed to its powerful influence, as seen in clinical practice [9]. It is suggested that further studies be conducted on the effects of Psychodrama on the physical health of adolescent girls. In conducting this research, the researcher has faced with limitations such as problems with coordination and preparation for effective participation in the study, the low tendency of some subjects to participate in the study, and not follow the long-term results of the intervention due to not having access to all sample subjects in the long term.

## Conclusion

Psychodrama training can be effective in reducing the high-risk behaviors of unsupervised adolescent

boys. Therefore, counselors and primary school teachers can take psychodrama training courses and use this method to maintain students' mental health and prevent psychological damage in schools. Finally, considering the therapeutic efficacy of the psychodrama method in reducing the high-risk behaviors of unsupervised adolescent adolescents, it is recommended that this method of intervention be taught in child and adolescent psychotherapist and, while informing counselors, try to find out the results of their work in order to achieve more comprehensive results.

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