





The Effectiveness of Mindfulness-Based Painting Therapy on Cognitive Avoidance of Students with Test Anxiety

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Abstract

The purpose was the effectiveness of painting therapy based on mindfulness on cognitive avoidance in students with test anxiety. The study was quasi-experimental and the statistical population were all female students in the middle school in district 9 of Tehran. A sample of 30 girls identified by using the test anxiety questionnaire were selected by convenience sampling method and random replacement assignment in two groups of 15 girls in each (the control and the experimental). The experimental group was trained in painting therapy based on mindfulness, 10 sessions of 60 minutes. Research tools were test anxiety questionnaire, the cognitive avoidance questionnaire and the painting therapy protocol based on mindfulness. Univariate, multivariate covariance and eta squared results showed that painting therapy based on mindfulness reduced cognitive avoidance. Therefore, painting therapy based on mindfulness is recommended for improving cognitive avoidance and increasing mental health.

Keywords: Cognitive avoidance, Mindfulness-based painting therapy, Test anxiety

Introduction

Nowadays, test anxiety has become a serious problem for families and their children. Test anxiety leads to poor cognitive performance and cognitive avoidance in students (Silaj, et al., 2021). Cognitive avoidance as a coping style resistant to any change, which are activated in anxiety-provoking situations such as exams. These styles include thought suppression, thought substitution, distraction, avoidance of threatening stimulus, and transformation of thought into thought. The common denominator of all these styles is the deviation of the mind from the worrisome subject and psychological stressor to other subjects and thoughts, and they cause rumination and avoidance (Mihailova, et al., 2020), which requires treatment. One of the cognitive avoidance treatments is painting therapy based on mindfulness, which gives us more awareness about children's actions and thoughts and is effective in treating cognitive avoidance (Regey, 2021). Ebrahim (2021) stated in his research that painting therapy is significantly effective in the treatment of cognitive avoidance in people with test anxiety. According to the necessity of increasing students' mental health, the aim was the effectiveness of a painting therapy program based on mindfulness on cognitive

avoidance in students with test anxiety disorder. The hypothesis was: Painting therapy program based on mindfulness has an effect on the cognitive avoidance of students with test anxiety.

Method

The research method was Quasi-experimental and the statistical population was one of the schools in the 9th district of Tehran with 250 students in 2021-2022. The test anxiety questionnaire was implemented with the consent and confidentiality of the information to screen the sample. 15 people were randomly placed in each group (experiment and control). Cognitive avoidance questionnaire was administered as a pre-test and post-test (after the treatment period) in two groups. In the experimental group, drawing therapy based on mindfulness was performed in 10 sessions of 60 minutes for two and a half months. The control group did not receive treatment. The data were analyzed with SPSS24 software.

Tools

Test Anxiety Inventory: This was designed by Abolghasemi, et al. (1996) and consists of 25 items on a 5-point Likert scale. Abolghasemi, et al. (2015) expressed Cronbach's alpha coefficient of 0.92 to measure the internal consistency of this questionnaire. The validity of the questionnaire with the anxiety questionnaire (TA) in the research of) was reported as 0.82 to 0.83 by Liyaghat and Ghasemi (2013). The alpha coefficient of questionnaire was 0.71 in the present research.

Cognitive Avoidance Questionnaire: It was created by Sexton and Dugas (2004) in 25 items with a 5-point Likert scale. Sexton and Degas (2008) expressed the reliability of this scale with Cronbach's alpha of 0.91. In Iran, Basak-Nejad, et al. (1389) found the reliability coefficient of the total score to be 0.91. The alpha coefficient of the questionnaire was 0.85 in this research.

Mindfulness-Based Painting: It was prepared by Seyedesmaili Ghomi, et al. (2019) in the form of activities with painting and body language with mind-awareness techniques. Seyedesmaili Ghomi, et al. (2020) stated that the content validity of this treatment was higher than %62 and the content validity was higher than %79 in this research.

Results

The normality of the variables was checked by the Shapiro-Wilk test, the equality of the variances of the control and experimental groups was calculated by Levene's test, and the homogeneity of the pre-test and post-test assumptions were established by the regression slope.

Table 1: Univariate and multivariate covariance analysis of cognitive avoidance and Its subscales

Source	SS	DF	MS	F	P	Eta
Cognitive avoidance	501.58	1	501.58	77.36	0.001	0.741
Pushing back worrying thoughts	15.68	1	15.68	18.94	0.001	0.452
Replacement of positive thoughts instead of worrying thoughts	12.19	1	12.19	12.79	0.001	0.357
distraction	28.02	1	28.02	50.02	0.001	0.685
Avoiding worrisome situations and activities	21.54	1	21.54	30.94	0.001	0.574
Changing mental images to verbal thoughts	11.62	1	11.62	11.05	0.001	0.325

The Eta squared shows that the difference between the two groups in the post-test variable generally is significant according to the statistical control of the pre-test, and this difference is 0.741; That is 74.1% of the variance of cognitive avoidance is caused by the experimental effect.

Discussion and Conclusion

through exercises and techniques based on mindfulness, including painting therapy, students are able to control their daily activities, thoughts, feelings, and physical states with moment-to-moment awareness. intrusive thoughts are controlled and distractions are reduced, also the past and future are released from the focused mind and the avoidance of the threatening stimulus ceases. Also, painting therapy was used as a tool for projecting, presenting, and expressing thoughts and feelings and prevented the wrong transformation of perception into thought. Also, in this treatment due to the reconstruction of threatening thoughts and increased self-confidence, the subjects' misconceptions about themselves decreased, and this brought about a reduction in thought suppression, thought substitution, and increased expressed abilities. It is possible to help reduce cognitive avoidance by disseminating and applying the results in school counseling centers.

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Conflicts of interest

The authors declared no conflict of interest.



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