



The effectiveness of cognitive-behavioral play therapy on exam anxiety and academic vitality

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ABSTRACT

Background and aim: Examining the issues and problems of students in the field of education and personality and identifying the factors that probably hinder their personal and social growth is of particular importance in every society. The purpose of this research was to determine the effectiveness of cognitive behavioral play therapy on exam anxiety and academic vitality in elementary school boys. **Methods:** This research was applied in terms of purpose and in terms of implementation method, it was a quasi-experimental type with a pre-test-post-test design with a control group. The statistical population in this research included all male students of primary school in district 2 of Sari city. In this research, a sample consisting of 30 students who were selected by voluntary sampling from among all the male students of primary school in district 2 of Sari city. They were randomly divided into two groups of 15 people (cognitive behavioral play therapy and control group). The data were collected using the children's test anxiety questionnaire (Wren and Benson, 2004) and the academic vitality questionnaire (Martin and Marsh, 2006) and were analyzed by univariate covariance analysis and spss.22 software. The significance level of the tests was considered 0.05. **Results:** The results showed that cognitive behavioral play therapy led to a significant improvement in the experimental group compared to the control group in reducing exam anxiety ($P < 0.001$) and increasing academic vitality ($P < 0.001$) in male students. **Conclusion:** Based on the findings of this research, cognitive behavioral play therapy can be used to improve exam anxiety and academic vitality in students in psychology and counseling centers.



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Introduction

Nowadays, the goal of education is not only teaching subjects but is the harmonious development of body and mind, and the school years is the character-building years of children and teenagers. Optimism and pessimism towards life and existence, persistence and ease, interest and disinterest, self-confidence and lack of self-confidence, and even mental health and lack of mental health are largely caused by the successful and unsuccessful experiences of students in the school and teachers' and parents' reactions towards them. So, students' successful and failed experiences during their educational careers directly impact all aspects of their personalities, including their mental health (Saka et al., 2020). International data show the fact that there is a kind of modern anxiety prevalence. The prevalence of the adoption of new development methods is spreading all over the world. Much information obtained from various studies shows that mental disorders, especially anxiety, can affect our everyday life and make it difficult (Aydin, Denkci Akkas, Türnük, Baştürk Beydilli, & Saydam, 2020).

Generally, every student experiences anxiety at different levels in school situations, such as exams, fear of mocking others, and the like. Although a limited amount of anxiety is necessary for human development, its high amount causes behavioral disorders and often forces a person to show neurotic behavior (Pitoyo & Asib, 2019). School anxiety can disrupt students' educational process and psychosocial adjustment if school anxiety exceeds a certain limit. Related studies show that exam anxiety is associated with decreased educational efficiency. Especially people with high anxiety get lower results on the exam. Students who suffer from test anxiety are described as someone who knows the course material; However, the intensity of anxiety prevents them from bringing their information to the fore in the exam. As a result, it is expected that there is an inverse relationship between exam scores and anxiety scores. Most studies emphasize a strong relationship between

academic performance and test anxiety (Cotner, Jeno, Walker, Jorgensen, & Vandevijk, 2020). The ability that promotes students' adaptation to stressful situations, adversities, problems, and stress is academic vitality. Academic vitality is defined as the ability of students to successfully deal with educational obstacles and challenges that are common in school life (Puwain, Connors, Symes, and Douglas-Osborn, 2012). Academic vitality refers to the capacity of students to successfully overcome obstacles and challenges that are normal in daily academic life (Veiskarmi & Yousefvand, 2018). Among the challenges and obstacles of academic life, we can mention poor performance, competitive deadlines, and functional and developmental pressures. Based on the presented theory, academic vitality can be an essential factor in the educational-psychological perspective of helping students who experience problems in their academic life (Mahmoudi Mehr et al., 2022). Academic vitality is considered one of the components of mental well-being in many research systems. When a person does something spontaneously, not only does he not feel tired and hopeless, but he also feels that his energy and strength have increased. In general, the inner sense of vitality indicates mental health (Solberg et al., 2012).

Cognitive-behavioral play therapy is a direct play therapy method that combines traditional play therapy techniques with cognitive-behavioral techniques (Stevens et al., 2019). In addition, Kazdin (2000) believes that one of the most important advantages of cognitive-behavioral play therapy compared to other forms of play therapy is its concrete goals and treatment methods. Such approaches allow for determining clear therapeutic goals and predicting specific methods of achieving these goals (Springer, Misorel, and Hiller, 2012). cognitive-behavioral methods deal with changing behavior and thoughts. Since it is thought that incompatible cognitions cause behavior associated with fear and anxiety, it is assumed that a change in thinking leads to a change in behavior. The

therapist helps the child to identify and correct his cognitions or to build them, in addition to helping the child to identify his cognitive distortions, and teaches him to replace this maladaptive thinking with adaptive thinking (Gallagher, Robian, and McCloskey, 2004). Finally, this research aimed to determine the effectiveness of cognitive behavioral play therapy on exam anxiety and academic vitality in elementary school male students.

Method

This research was applied in terms of purpose. In terms of the implementation method, it was a quasi-experimental type with a pre-test-post-test design with a control group. This research's statistical population included all male primary school students in district 2 of Sari city (7652 individuals). In this research, a sample consisting of 30 students who were selected by voluntary sampling method from among all the male students of primary school in the 2nd district of Sari city. They were randomly divided into two groups of 15 people (cognitive-behavioral play therapy and control group). The number of samples required is based on similar studies, considering the effect size of 0.40, confidence level of 0.95, test power of 0.80, and dropout rate. 10% was calculated for each group of 15 people.

The experimental group of cognitive-behavioral play therapy intervention was organized during ten sessions of 90 minutes. While the control group remained on the waiting list after the end of the training period to collect and analyze the data and check the effect of the treatment method, a post-test was conducted on both groups after one week. Voluntary sampling was used to select the sample from the statistical population and the target population of the research. The ethical considerations of the present study were as follows: 1. All people received written information about the research and participated in the research if they wished; 2. research variables are presented in Table No. 1.

The subjects were assured that all information was confidential and would be used for research purposes; 3. In order to respect privacy, the names and surnames of the participants were not recorded. Criteria for entering the educational process: Male students studying in the primary level of the 2nd district of Sari and knowingly consenting to the research did not participate in other educational and therapeutic classes simultaneously. The exclusion criteria included an absence of more than two sessions.

Tools

1. Children's Test Anxiety Scale (CTAS): This scale was created by Wren and Benson (2004) in order to evaluate the test anxiety of children aged 7 to 12 years, and it has two forms of 30 and 25 items, which in the 25-item form, items 1, 8, 14, 15 and 25 have been removed from the 30-item form. This scale has three subscales: intrusive thoughts, behaviors unrelated to task 3, and automatic reactions. In the 30-item form, Cronbach's alpha coefficient for the whole scale is 0.92, and for the subscales between 0.76 and 0.89. In the 25-item form, Cronbach's alpha coefficient for the whole scale is 0.89, and for the subscales. 0.73 to 0.86 has been reported (Wren & Benson, 2004).

2. Academic Vitality Questionnaire (AVQ): This scale was designed by Martin and Marsh (2006), and included nine items. Answers are calculated on a five-point Likert scale from one (completely disagree) to five (completely agree). This scale has internal consistency and retest reliability (Cronbach's alpha 0.80 and retest 0.67). Also, the range of correlation of the items with the total score is between 0.51 and 0.68 (Dehghanizadeh & Hosseinchari, 2011).

Results

The descriptive results showed that in the present study, the mean and standard deviation of age in the experimental group were 42.05 and ± 8.76 , and in the control group were 42.25 and ± 8.35 years. Also, the descriptive findings of the

Table 1. Descriptive indices of the scores of the research variables of the experimental and control groups in the two stages of the research

Variables	Stages	Experiment		Control	
		Mean	SD	Mean	SD
Exam Anxiety	Pre-test	70.63	2.13	74.50	2.81
	Post-test	52.88	7.03	75.13	5.02
Academic Vitality	Pre-test	22.38	1.06	20.63	0.91
	Post-test	29.50	2.69	20.63	0.91

Covariance analysis was used for the statistical analysis of data related to this research. Before applying the analysis of the covariance test, the necessary assumptions of this test, including the normality of the data, the homogeneity of the regression slope and the homogeneity of the variances, the values of skewness and kurtosis, and the homogeneity of the variance-covariance matrix were checked. The results of repeated measurement variance analysis among the studied groups in exam anxiety and academic vitality showed that the effect between the subject (group) is significant. It means that at

Conclusion

This research aimed to determine the effectiveness of cognitive behavioral game therapy on exam anxiety and academic vitality in primary school boys. The findings showed that cognitive behavioral game therapy is effective on exam anxiety and academic vitality in elementary school students. This finding with the results of Martin's research (2014); Jafari (2012); Asli Azad, Arefi, Farhadi, and Sheikh Mohammadi (2012), Asghari Nikah, Kamali and Jansouz (2015) were on the same page. In explaining this finding, it can be said that the phenomenon of exam anxiety is widespread among educational issues. This phenomenon has a negative relationship with academic performance and is one of the main causes of academic failure. Exam anxiety is an unpleasant experience that affects cognitive, physiological, and emotional areas. In general, it can be said that exam anxiety has a harmful role in students' mental and physical health and may affect their academic performance. Many causes and factors may cause test anxiety (Lindenberg et al., 2022). In explaining and providing treatment solutions for test anxiety, the following factors play a fundamental role: individual, family, school, and environmental factors. The results of some studies show that among the above four factors, individual factors have more influence. Among

least one of the groups is similar in at least one of the variables of exam anxiety, and their academic vitality is different. The within-subject effect (time) was also significant for the research variables, meaning there was a change in at least one of the average variables from the pre-test to the post-test. The results from Table 4 showed that the F ratio obtained in the factor of groups is significant in the dimensions of exam anxiety ($p < 0.01$) and academic vitality ($p < 0.01$). This finding indicates that cognitive-behavioral play therapy is significantly effective on exam anxiety and academic vitality.

the individual factors, many cognitive and personality characteristics are reported, including gender (being female), low self-esteem, low self-efficacy, external locus of control, high general anxiety, distraction, unreasonable personal expectations, and feeling helpless as the causes of exam anxiety. Play therapy programs can teach children cognitive behavioral techniques by playing and gaining their trust. This therapy helps children identify incorrect beliefs about the test and replace them with correct beliefs. This causes them to see different aspects and, as a result, get new opportunities, and their attitude towards the exam changes. In explaining this finding, the main goal of cognitive behavioral therapy training is self-control and self-learning so that learners become independent learners who can guide, monitor, and modify their cognitive and learning processes in the direction of their own goals. Cognitive behavioral therapy refers to psychological structures, knowledge, and processes that control, change, and interpret thoughts and cognitions. Also, behavioral cognition is defined as awareness of how a person learns, awareness of how to use available information to reach a goal, the ability to judge cognitive processes in a specific task, and awareness of what strategies to use for what goals. (Osoli, Shariatmadar, & Kalanter Hormazi, 2016).

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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