




Research Paper

The Effectiveness of Acceptance and Commitment Therapy on Academic Emotion of Hope and Academic Self-Concept of Female Students with Test Anxiety

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Received: 2021-10-20

Accepted: 2022-07-25

Abstract

Aim: The aim of this study was to evaluate the effectiveness of Acceptance and Commitment Therapy (ACT) on academic emotion of hope and academic self-concept of female students with test anxiety. The research design was quasi-experimental with pretest/posttest and a control group. The statistical population of the study included all female students of the 11th and 12th grades in Marvdasht, (n= 3265), in the academic year 2020-2021. Convenience sampling was used to select a sample of 30 students who were randomly divided into experimental and control groups (15 people in each group). Research tools included the Academic Emotion of Hope Questionnaire (Pekrun et al., 2002), Test Anxiety Questionnaire (Sarason, 1990), and the School Self-Concept Inventory (Chen and Thompson, 2004). The experimental group was subjected to ACT for 8 sessions of 90 minutes. Multivariate analysis of covariance was used to analyze the data. The results of the research showed that this intervention led to a significant increase in performance in the components of academic excitement, hope and academic self-concept in the experimental group in the post-test stage. Therefore, it can be concluded that this

intervention can increase students' academic excitement, hope, and academic self-concept.

Keywords: *Test Anxiety, Academic Self-Concept, Acceptance and Commitment Therapy, Academic Emotion of Hope*

Introduction

Test anxiety is a type of mental self-preoccupation characterized by a person's doubts about their own abilities (Knoll, Valentinier & Holzman, 2019). Test anxiety can potentially be related to other variables in students, and examining these variables in the form of treatment outcomes will provide us with a better understanding of this construct. One of the factors related to test anxiety is the academic excitement of hope. According to Pekrun's "value-control theory" (2006), the academic excitement of hope is also one of the indicators of the quality of academic life, which increases flexibility, vitality, the ability to overcome challenges, endure failure and deal with problems (Sagna, Kemp, DiNitto & Choi, 2020). Research has contributed several factors to test anxiety, for example, academic self-concept (Lei, et al., 2021). Academic self-concept expresses a person's knowledge and perceptions about their strengths and weaknesses, which includes the following three components: self-image, self-esteem, and self-idealism (Bass & Larsen, 2020).

According to the literature, Acceptance and Commitment Therapy (ACT) is one of the psychological treatments for test anxiety (Coto-Lesmes, Fernandez-Rodriguez & Gonzalez-Fernandez, 2020). The goal of ACT is to help clients achieve a more valuable and satisfying life by increasing psychological flexibility (Hill, Schaefer, Spencer & Masuda, 2020). Considering that test anxiety can directly and indirectly play a destructive and inhibiting role in the physical, mental, educational and social health of people, the current research was conducted to determine whether it is possible to improve academic hope and self-concept of female students with test anxiety by providing psychotherapies based on commitment and acceptance of academic excitement.

Methodology

The current research was of a quasi-experimental design with pre-test/post-test and a control group. The statistical population was all the female students of the 11th and 12th grades (n=3265) in Marvdasht city in the academic year 2019-1400, according to the statistics provided by the Department of Education of Marvdasht city. The initial sample size was 30 female students who were diagnosed with test anxiety based on Sarason's test anxiety questionnaire (1990) and were selected by convenience sampling

method. Descriptive statistics of frequency, mean, standard deviation, minimum and maximum, and inferential statistics of multivariate covariance analysis were used to confirm the effect of the independent variable on the dependent variables. Data were analyzed in SPSS software (version 22).

Results

In this study, the mean age of the participants in the experimental and control groups was 17.05 years and 17.08 years, respectively. Furthermore, the mean (\pm standard deviation) of the academic grade point average was 18.72 ± 1.25 in the experimental group, and 18.14 ± 1.45 in the control group. The normal distribution of the dependent variable was confirmed using the Kolmogorov-Smirnov test, which was 0.12 for academic hope and 0.18 for academic self-concept. Box's test was used to check the homogeneity of variance-covariance matrices, and the significance level of the box's test was greater than 0.05. The assumption of equality of variances was also confirmed. The findings of multivariate covariance analysis of the groups in the dimensions of academic excitement, hope and academic self-concept revealed a significant difference between the control and experimental groups in at least one of the dimensions of academic excitement, hope and academic self-concept ($P < 0.05$). Furthermore, the statistical power of 0.89 indicates the sufficiency of the sample size for testing the null hypothesis and the power of the test in identifying the real effect. In addition, the results of the one-way covariance analysis of the academic excitement variables of academic hope and self-concept and their subscales revealed a significant difference between the amount of academic excitement of hope and academic self-concept (total score) and the dimensions of academic excitement, hope and self-concept in the experimental group compared to the control group. As a result, the treatment based on ACT is effective on academic excitement, hope and self-concept (total score) and dimensions of academic excitement, hope and self-concept of female students with test anxiety.

Discussion and conclusion

The results showed that ACT significantly increased the academic excitement and hope of female students with test anxiety. Therefore, ACT is effective on the academic excitement of female students with test anxiety. Other results of this research showed that treatment based on ACT significantly increased the academic self-concept of female students with test anxiety. Therefore, it can be acknowledged that the treatment based on ACT is effective on academic self-concept (total score) and dimensions of general self, school self and non-school self of female students with test anxiety.

The most important limitations of this research were the lack of a follow-up test due to the time constraints and the large number of questions in the questionnaires, which may have reduced students' accuracy. Also, this research enrolled only female students of the senior high school, therefore, it cannot be generalized to all students with test anxiety. It is suggested to investigate the effectiveness of other treatment methods such as cognitive-behavioral therapy and mindfulness on students' test anxiety in future studies. Education Department can use the results of this research to formulate educational programs for students to reduce their test anxiety and improve their academic performance.

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