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Effectiveness of Test Time on Anxiety and Cognitive Distortions in Students Sepidan Branch Islamic Azad University

Alireza Yazdanpanahi Ardakani[1], Ali Naseri[2, *]

[1]Department of Psychology, Yasooj Branch, Islamic Azad University, Yasooj, Iran
[2]Department of Psychology, Firoozabad Branch, Islamic Azad University, Firoozabad, Fars, Iran

Abstract

The purpose of this study was to investigate the effect of time on anxiety and cognitive distortions of Students of Sepidan University of Medical Sciences. The research method was semi-experimental, pre-test, and post-test with two experimental groups and one control group. The community included all male electrician-electronics students (75 students). After pre-test, they were randomly assigned to three groups (low time group, high test group and control group) (each group was 35 students). The research tools were anxiety inventory and cognitive faculty distortion questionnaire. The research method was that after all three groups were matched based on practical intelligence and academic achievement, a pre-test was performed. All three groups were asked to answer a general information questionnaire. The group was told that the 30 minutes were responding to the questionnaire. The group was told that they were 60 minutes long to respond to the questionnaire and told the control group that their response time is unlimited. Then anxiety and cognitive distortion questionnaires were immediately applied as a post-test for all three groups. The data from the questionnaires were analysed using one-variable covariance analysis. The results showed that the low test time increased anxiety and cognitive distortions of all or no, generalized exaggerated, subjective filtering, neglect of positive, concurred conclusions, coarse-nose-thumbnail, sensory reasoning, need-no-nonsense and Glued But the exam's time did not affect the personalization cognitive distortion. On the whole, it is concluded that the score that an individual receives from examining questions is not merely influenced by the person's ability, but the exam time and the resulting anxiety also affect the score of the century by individuals from answering questions.

Keywords

Test Time, Anxiety, Cognitive Distortions

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1. Introduction

Anxiety is an integral part of life, if it rises to a higher level; it causes impairment in human function. Many theorists believe that anxiety is an evolutionary state that informs us of imminent risks so that we can counteract those risks. However, if the severity or duration of the anxiety state is high or occurs without a particular cause, it may be we have a sickly and unusual reaction. In fact, we can identify anxiety as an emotion of concern, danger, and threat with physical characteristics such as heart palpitations, sweating and blood pressure. [1]. One of the variables related to anxiety, irrational beliefs and cognitive distortions. These beliefs consist of dry and prejudiced beliefs that are usually expressed and supposedly expressed by words, and are the result of irrational and over-generalized assignments. Cognitive distortions make our perception and thinking unreal, extreme and distorted. [2]. believes that these cognitive distortions are attributed to

* Corresponding author
E-mail address: dr.alinaseri@yahoo.com (A. Naseri)

mistakes or errors that serve the inference and exploratory functions, which recall different ways of thinking that may even be wrong [3]. Human beings exhibit a different function under time's influence, for example when they have less time, they exhibit aesthetic reactions and may be cognitively disturbed [4]. From the beginning of creation, humans have noticed changes in time. Every day, observing the movement of the sun in the sky and seeing the changes of day and night, the narrow crescent, in the form of a crescent every year, is confronted with changing seasons. When ancient civilizations were formed, the need for measurement and planning was felt., So the calendar was created. At first, moving the shadows allowed people to divide the days into the morning and afternoon. Old peoples usually divide time into fixed units such as hours or minutes, but also to unpolluted, non-precise, large parts that represent the time it takes to do everyday tasks. The first hours were based on repetitive phenomena other than astral moving. Water clocks. Between 1500 and 1510, clocks were made that worked with springs, and in the nineteenth century were built large mechanical clocks in the Italian city tower [4]. The tail-wing civilization not only divided time into precise and standard distances in the form of time units, but also set the zeal distances in a straight line that extends from the past to the present and then to the future. This perception has been alien to the billions of people who lived before industrial civilization. The basis of all economic, scientific, and political planning in the world was the world, and created widespread developments in how ordinary people treated their daily routine [7].

Over time, humans learned to manage their times; time management was introduced by Makan in the late 1950s. This methodology involves techniques for converting these goals into tasks and activities for their faster implementation, how to plan daily priorities and how to prevent work interruptions that limit their ability to perform tasks [9, 7, 11, 5, 4]. Argue that raising academic performance, endurance against stress, thinking about spending time and raising awareness of using time is a consequence of good time management skills. Therefore, the present study examines the effect of exam time on the level of cognitive anxiety and distortion in students.

2. Method

The present study was a semi-experimental research. The statistical population consisted of male students of Electrical and Electronic Applied Sciences, Islamic Azad University, Sepidan Branch, who studied in the academic year 2015-2016. Sample size was equal to community size. At first, the sample group was matched based on gender, age, field, section, practical intelligence and academic achievement, then randomly; the students were classified into three groups. The population of the study included all male students of Electrical and Electronic Sciences degree at Sepidan Islamic Azad University (75 students) who were studying in the academic year 2015-2016.

2.1. Research tools

2.1.1. Beck Anxiety Inventory

Beck Anxiety Inventory is a self-report questionnaire and one of the most reliable diagnostic tests for assessing the severity and symptoms of anxiety in adolescents and adults (aged 17-80 years). This test has 21 questions and examines the mental and physical symptoms of anxiety or signs of panic and anxiety-related panic. This test has a high diagnostic power to distinguish people with anxiety from normal people and includes four options in the 0 to 3 range. The score is in the range from 0 to 63.

2.1.2. Cognitive Distortion Questionnaire

Abdollah Zadeh and Salar Cognitive Distortion Questionnaire (2010) were used to measure incoherence distortions. The questionnaire consists of 20 phrases that measure the cognitive distortions posed by Albert Ellis, and each unconscious thinking has the number of two terms.

2.2. Data analysis method

Descriptive statistics (mean and standard deviation) and statistical method of variance covariance analysis were used to analyze the data and research hypotheses. All of this statistical analysis was performed using SPSS-21 software.

3. Results

Table 1. The mean and standard deviation of subjects' age.

Standard deviation	Average	Groups
1.41	22.08	band with a little time
1.73	40.21	band with a lot of time
1.89	64.21	control group

Table 1 shows the mean and standard deviation of subjects' age by groups. The mean and standard deviation of students' age in the experimental group were 22.08 and 1.41, the mean and standard deviation of students' age in the test group were 21.40 and 1.73, and respectively the mean and standard deviation of students' age in the control group were 21.64 and 1.89, respectively.

Table 2. Average and standard deviation of students' academic achievement by groups.

Standard deviation	Average	Groups
2.06	15.64	band with a little time
1.83	15.12	band with a lot of time
1.59	14.96	control group

Table 2 shows the average and standard deviation of students' academic achievement by groups. The mean and standard deviation of students' academic achievement with a low test time was 15.64 and 2.06, respectively. The mean and standard deviation of students' academic achievement with a high test time was 15.12 and 1.83 the mean and standard deviation of academic achievement in the control group students were 14.96 and 1. 59.

Table 3. Levin test results of student anxiety scores.

significance level	F Levin	Degree of freedom 2	Degree of freedom 1	Variable
0.001	10.309	72	2	Anxiety

Table 3 Levin test results show students' anxiety scores. The results indicate that Levin's test is significant. (Significance level=0.001, Levine test= 10.309). Therefore, the assumption is that homogeneity of variances is not presumed.

Table 4. Results of covariance analysis of student anxiety moderated scores.

ETA Coefficient	P	F	Average squares	Degrees of freedom	Sum of squares	Sources of changes
0	0.975	0.001	0.042	1	0.042	Anxiety pre-test
0.66	0.001	70.407	2883.993	2	5767.985	group
			40.962	0.71	2908.278	Error

Statistical analysis of variance covariance was used to analyze the hypothesis 1.

In this group analysis (low test time, high test and control time) as an independent variable, the anxiety post-test scores as dependent variable and anxiety pretest scores were analyzed as the variable of change. The results of Table 4 show that there is a significant difference between the mean scores of post-test anxiety in the two groups (P = 0.001, F = 70. 407). To determine which differences between the two groups are significant, the Tukey post hoc test was used. The results are presented in the following table.

Table 5. Comparison of the students' anxiety post-test scores in three groups.

Band with a lot of time exam	Band with a low test time	Groups
14.44	-	Band with a low test time
6.56	21	Control

P<0.05

Table 5 shows the results of Tukey's post hoc test. Considering the fact that the average of post-test anxiety scores of the group with a low test time (31.52) was significantly higher than the average test scores of the anxiety post-test group (17.08) And the mean of post-test scores of control group (10.52) at alpha level it is 0.05 Also, the mean scores of anxiety test group with low test time (31.52) Compared to the average post-test scores of anxiety group with a high test time (17.08) At the alpha level of 0.05, it is concluded that the test generally causes anxiety in students, as well as the low test time as compared to the length of the exam, significantly increases the students' anxiety. Therefore, hypothesis 1 is confirmed.

Hypothesis 2:

"The exam time affects the students' cognitive distortions at Sepidan Islamic Azad University."

Statistical analysis of variance covariance was used to analyze the hypothesis 2 and the results are presented below.

Table 6. Levin test results of students' cognitive distortions.

significance level	F Levin	Degree of freedom 2	Degree of freedom 1	Variable
715	337	72	2	All or none
333	116.1	72	2	Exaggerated generalization
166	842.1	72	2	Mental Filter
646	440	72	2	Disregard for the positive
2	26.7	72	2	Conclusion Hasty
101	369.2	72	2	Coarse nasal sinuses
2	335.4	72	2	Emotional reasoning
1		72	2	Do-Nonsense
1		72	2	Label
371		72	2	Personalization
7		72	2	Total cognitive distortions

Statistical analysis of hypotheses

Hypothesis 1:

"The exam time is effective on students' anxiety in Sepidan Islamic Azad University".

Statistical analysis of variance covariance was used to analyze the hypothesis 1. The results are given below.

Table 7. Results of Covariance Analysis of Modified Scores for Students' Cognitive Distortions.

ETA Coefficient	P	F	Average squares	Degrees of freedom	Sum of squares	Sources of changes	Cognitive distortions
0.02	0.23	1.464	1.266	1	1.266	pre-exam	Personalization
0.04	0.233	1.488	1.286	2	2.573	Group	
			0.864	71	61.374	Error	
0.09	0.008	7.422	414.057	1	414.057	pre-exam	Total cognitive distortions
0.76	0.001	114.865	6407.776	2	12815.55	Group	
			55.785	71	3960.743	Error	

Statistical analysis of variance covariance was used to analyze the hypothesis 2. In this group analysis (low test time, time Zia exam and control) as independent variable, the post-test scores of cognitive distortions as dependent variable and pre-test cognitive distortion scores as input variables were analyzed.

4. Discussion

Hypothesis 1:

"The exam time is effective on students' anxiety in Sepidan Islamic Azad University".

Statistical analysis of variance covariance was used to analyze the hypothesis 1. The results show that the mean of posttest anxiety scores in the group with a low test time was significantly higher than the mean of the test group anxiety posttest and the mean scores of the anxiety posttest in the control group Also, the mean scores of anxiety test group with a low test time compared to the average of post-test anxiety groups in the group with a high test time is significantly higher, which is generally concluded. Exams with limited time increase anxiety in students, as well as examinations with the low times also cause more anxiety in students. The results of this hypothesis are based on the results of previous research, including [2, 9, 14, 7, 13, 11, 5]. In explaining these findings, it can be said: Evidence suggests that time management education at the level of schools and universities are one of the essential needs of students and students. Because efficient use of time management can be used to plan goals and assign tasks, and prioritize them. Lists planned activities. By planning and assigning time, one can increase the understanding of the individual from time to time so that it can be targeted and structured from time to time, and by prioritizing affairs based on the time allotted for each activity, it can perform multiple tasks on time. To give People's insight on how to use time affects their anxiety. Studies have shown that time management techniques improve performance and reduce anxiety in individuals.

Hypothesis 2:

"The exam time is effective on the cognitive distortions of the students of the Islamic Azad University Sepidan Branch."

Statistical analysis of variance covariance was used to analyze the hypothesis 2. The results show that the mean post-test scores of all cognitive distortions, and subcategories of cognitive distortions including all or none, exaggerated generalization, mental filtering, neglecting the positive, concurred conclusions, coarse-throat, nose, dips, and Labeling a group with a low test time compared to the average post-test scores of all cognitive distortions, And the subcategories of cognitive distortions including all or none, exaggerated generalizations, negation, neglecting the positive, concurred conclusions, coarse nose - thumbnail, dips, and labels of the control group are significantly higher, so we conclude It is possible that the low test time in relation to the length of the exam and the proportion of examinations that are not limited in time will increase the total cognitive distortions, subcategories of cognitive distortions, including all or none, exaggerated generalization, filtration, neglect of the positive, hasty conclusion, Coarse-throat - Throat, Dips - Nonsense and Labeling Students. [3]

5. Conclusion

Although at times low test time and the length of the exam would increase the cognitive distortion of emotional reasoning in the students, and it was also concluded that the low test time and the length of the exam do not affect the cognitive impairment of personalization. In explaining these findings, it can be said that the experiences of individuals in life lead to assumptions, cognitive distortions, and schemes of the world and themselves, that these assumptions, cognitive distortions, and schemes are used in the organization, perception, control, and evaluation of behavior. But some of these beliefs, assumptions, and cognitive distortions are inflexible, extreme and resistant to change, and thus ineffective and infertile. They may also incorrectly interpret the current experiences or predictions about the future and reminiscent of things that have happened in the past. A person with anxiety who has negative beliefs and schemes is in a condition of assessment, feeling helpless and unable to influence events such as the exam. Adaptive reactions of students and students at the moment of the test anxiety, such as self-destructive thoughts, irrational beliefs and cognitive distortions, lead to more anxiety. Particularly when the test time is limited and low, backtracking and

cognitive distortions are more activated so it can lead to more anxiety in students and students.

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