

Original Research Article

Level of Test Anxiety for Final Exam among King Faisal University Students

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Abstract

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Background: University life is a chapter of all the enrolled students' life where they face stressful events that could potentially lead to different levels of anxiety. Anxiety is a common phenomenon that causes poor academic achievements for most college students in the world. Higher state of anxiety, feeling low self-esteem, taking longer time to accomplish tasks, and spending more time for studying, are faced by college students who also worry about tests resulting in low grades. **Aim:** This study aimed to determine the anxiety level among university students during final exams, and to determine the relationship between students' characteristics and the level of test anxiety among King Faisal University Students in Al Hasa, Eastern Region, Saudi Arabia. **Method:** A cross-sectional study research design was utilized to conduct the current study on a sample of (N = 362 students) randomly chosen from King Faisal University students from different colleges. Informed consent was taken stating that the participants have the right to leave the study at any time. Students were asked to complete a questionnaire developed by Nist and Diehl (1990) in assessing Test Anxiety. Test anxiety score was measured among students between the age range 18 to 26 years. There was high level of test anxiety among level 3 students (25.3%) with ($Mean \pm SD=31.1 \pm 6.8$) and among level 4 students (21.2%) with ($Mean \pm SD 30.5 \pm 6.5$). The frequency of students with high anxiety was significantly increased in health college (28%). This means that there was a significant increase in the anxiety score in health colleges compared with non-health colleges. The prevalence of high level of test anxiety among university students was (19.1%). High level of test anxiety is noticed in our university students. Also, the result confirmed that there is a relationship between test anxiety and students' characteristics. **Conclusion:** Anxiety is a natural response categorized by feelings of stress, anxious thoughts and bodily alterations like raised blood pressure. Moderate levels of anxiety are motivating and can improve students' test performances. However, high level of anxiety could hinder and interfere with their academic performance. The current study focuses on the test anxiety level among undergraduate King Faisal University students. In this study, high level of test anxiety is noticed in the students. Also, the result confirmed that there is a relationship between test anxiety and students' characteristics.

Keywords: Final exam, Test Anxiety, University students.

INTRODUCTION

Anxiety is a natural response expressed by feelings of stress, anxious thoughts, and bodily alterations like raised blood pressure (American Psychological Association, 2020).

University life is a chapter of an enrolled students' life where they face stressful events that could potentially lead to different levels of anxiety. University students enjoy and take pride in their higher education pursuit.

Those feelings are usually accompanied with some other conflicting feeling caused by entering a new environment, making new friends, leaving their family to go to a university in a different city or the uncertainty that comes after finishing their degree (Aydin and Yucel, 2014).

Students who study in the university experience many issues like adapting with a new environment that require changing of habits. Also, they face challenges and pressures from other people to accomplish high academic performance. This in turn may cause anxiety, stress and depression (Shamsuddin et al., 2013).

Exams or formal assessments are designed to test the performance, giving an indication of student's ability to cope under pressure and in limited time to finish tasks. Moderate levels of anxiety are motivating factor that can improve students' test performances. However, high level of anxiety could hinder and interfere with their academic performance (Vaz, 2018).

Stress is also considered an important factor of an exam performance because mild degrees of stress can be beneficial as it compels students to focus and perform a given task energetically (Kumari A, Jain J., 2014).

Test anxiety is defined as a typology of state-anxiety. It is as a temporary emotional state of the individuals when they experience specific situation or stimulus. Test anxiety is considered as any other form of anxiety with the presence of somatic, cognitive, and motor symptomatology (Fernández and Caurcel, 2015).

Anxiety is a common phenomenon that causes poor academic achievements for most college students in the world. An average level of anxiety is important in numerous situations because it helps people to handle their work and be responsible for what they are doing. On the other hand, severe level of anxiety threatens person's psychological and physical wellbeing. It also has a harmful impact on individual's personal, social, family, professional, and educational performance (Dawood et al., 2016).

In recent years, one of the broadest research areas is test anxiety and its aspects, which is a kind of anxiety turning out particularly during examination. Often test anxiety construct is from two factors: one is cognitive (often referred to as "worry") and the other is emotional (or affective) components. The association between these two factors suggests that the cognitive component directly affects and influences the students' performance in exams. However, the emotional component affects the students, but does not have influence directly on their exam performance (Cassady, 2005).

Test anxiety includes set of responses, which are experienced by students while taking exams. Other components of text anxiety include agitation, extraordinary body movements, problem in focusing,

sleeplessness, tiredness, muscle spasm, abdominal discomfort, and tremors are test anxiety responses which have harmful effects on the students' lives and career development (Porto, 2013).

Higher state of anxiety, feeling low self-esteem, taking longer time to accomplish tasks and spending more time for studying, are faced by college students who worry about tests resulting or low grades (Alansari, 2004; Hembree, 1988; Foos and Fisher, 1988).

AIM OF THE STUDY

This study aimed to determine the anxiety level among university students during final exams, and to determine the relationship between students' characteristics and level of test anxiety among King Faisal University Students in Al Hasa, Eastern Region, Saudi Arabia.

METHODS

Design and setting

A cross-sectional study was conducted in December 2019 among King Faisal University students during the final university required subjects' exam. King Faisal University, a foremost higher education institution with 15 colleges and 22,861 female students, is located in eastern Region, in Saudi Arabia.

Subjects

The study population was determined via simple random sampling method which covered (Sample size = 378 students), with confidence level of 95%, margin of error 5%, and an accepted non-response rate of 20%. All participants attended regular university studies at King Faisal University from different colleges. The researchers divided the participating colleges into three categories. The first category is the Health Specialties Colleges (College of Medicine, College of Applied Medical Sciences, College of Pharmacy, College of Veterinary Medicine and College of Biomedical Engineering). The second category is the Non-Health Specialties Colleges (College of Business Administration, College of Art, College of Science, College of Computer Science, College of Law, College of Applied Studies, and College of Agriculture). The third category is the Preparatory Year. The students were chosen randomly from each category. The researchers excluded college of education because it is closed for three years, and college of community in Beqiq because it is not in the same campus.

Table 1. Factors affecting test anxiety

		Health specialties Colleges (I)	Non-Health specialties Colleges (II)	Preparatory Year (III)	P value		
		N=100	N=237	N=25	I vs II	I vs III	II vs III
Anxiety about specialty subjects	Yes	67(67%)	145(61.2%)	18(72%)	0.312	0.632	0.289
	No	33(33%)	92(38.8%)	7(28%)			
Anxiety about oral questions	Yes	48(48%)	169(71.3%)	19(76%)	<0.001*	0.012*	0.620
	No	52(52%)	68(28.7%)	6(24%)			
Anxiety of essay questions	Yes	90(90%)	182(76.8%)	18(72%)	0.005*	0.044*	0.592
	No	10(10%)	55(23.2%)	7(28%)			

Data collection

The data were collected utilizing two-part questionnaire. First part is an Arabic self-directed questionnaire containing of questions about demographic data, such as age, college, and educational level. And the second part is the questionnaire regarding Test Anxiety. Pilot testing was done on 30 students to evaluate the simplicity and quality of the translated questionnaire.

Ethical approval

Ethical approval was taken from College of Applied Medical Sciences Research and Ethical Committee. Informed consent was also obtained from participants and informing them that they have the right not to join in the study or to leave the study at any time. Participants' confidentiality was respected, and data were kept confidential and used for study purposes only. Every one of the participants where well informed and signed a written approval form.

Instruments

Test anxiety level was assessed with a questionnaire that developed by Nist and Diehl (1990). The researchers made forward and backward translation to be sure of the quality of the questionnaire and be sure that each question has the same meaning. The two experts judge the questionnaire validity in the Arabic form. The questionnaire was used to determine if the students are expressing mild, moderate or severe test anxiety. It contains 10 statements and each statement has a value of one to five. Participants were asked to measure their perceptions utilizing a 5-point Likert scale (with 1 being never and 5 being always). A low point score (10-19) signifies that the participant does not complain from test anxiety. A score between (20-35) signify that the participant suffers from moderate anxiety. While, scores over 35 indicate that the student is experiencing an

unhealthy level of anxiety, which is severe anxiety.

RESULT

In this study, 362 participants completed the questionnaire with a response rate of (95.7%), aged from 18 to 26 years (Mean \pm SD = 20.5 \pm 1.6). All participants attended regular university studies at King Faisal University from different colleges. 100(27.7%) of the students who participated were from Health Specialties Colleges (College of Medicine, College of Applied Medicine, College of Pharmacy, and College of Biomedical Engineering). 237 (65.6%) students participated from Non-Health Specialties Colleges (College of Business Administration, College of Art, College of Science, College of Veterinary Medicine, College of Computer Science, College of Law, College of Applied Studies, and College of Agriculture). 24(6.7%) students participated from Preparatory Year.

Table 1 represents factors affecting test anxiety in (Health Specialties Colleges, Non-Health Specialties Colleges and Preparatory Year) including anxiety about specialty subjects, oral questions and essay questions. As shown in the table, the test anxiety level about the specialty subjects are almost the same in the three categories.

In relation to anxiety on oral questions, it was significantly lower in health College compared with both preparatory year and non-health colleges. While anxiety of essay questions was significantly higher in health college compared with both preparatory year and non-health college.

Table 2 represents the participants' responses to Nist and Diehl Questionnaire for Test Anxiety Level. As shown in the table, level of high-test anxiety appeared in level 3(25.3%) with (Mean \pm SD = 31.1 \pm 6.8) and level 4, 11(21.2%) with Mean \pm SD 30.5 \pm 6.5.

Figure 1 shows a comparison between different students' category and the level of test anxiety. Comparing health and non-health colleges, the frequency of students with high anxiety was significantly increased

Table 2. Mean of Test Anxiety in Different levels

	Level	N	Total score		Degree	
			Range	(15-46)	Low (10-19)	8(6.6%)
All University	Level 1	121	Mean ± SD	30.2±6.5	Moderate (20-35)	90(74.4%)
					High (> 35)	23(19%)
	Level 2	94	Range	(17-44)	Low (10-19)	3(3.2%)
			Mean ± SD	30±5.7	Moderate (20-35)	80(85.1%)
					High (> 35)	11(11.7%)
	Level 3	95	Range	(16-46)	Low (10-19)	8(8.4%)
			Mean ± SD	31.1±6.8	Moderate (20-35)	63(66.3%)
					High (> 35)	24(25.3%)
	Level 4	52	Range	(19-48)	Low (10-19)	1(1.9%)
			Mean ± SD	31.3±6.8	Moderate (20-35)	40(76.9%)
					High (> 35)	11(21.2%)
Total	362	Range	(15-48)	Low (10-19)	20(5.5%)	
		Mean ± SD	30.5±6.5	Moderate (20-35)	273(75.4%)	
				High (> 35)	69(19.1%)	

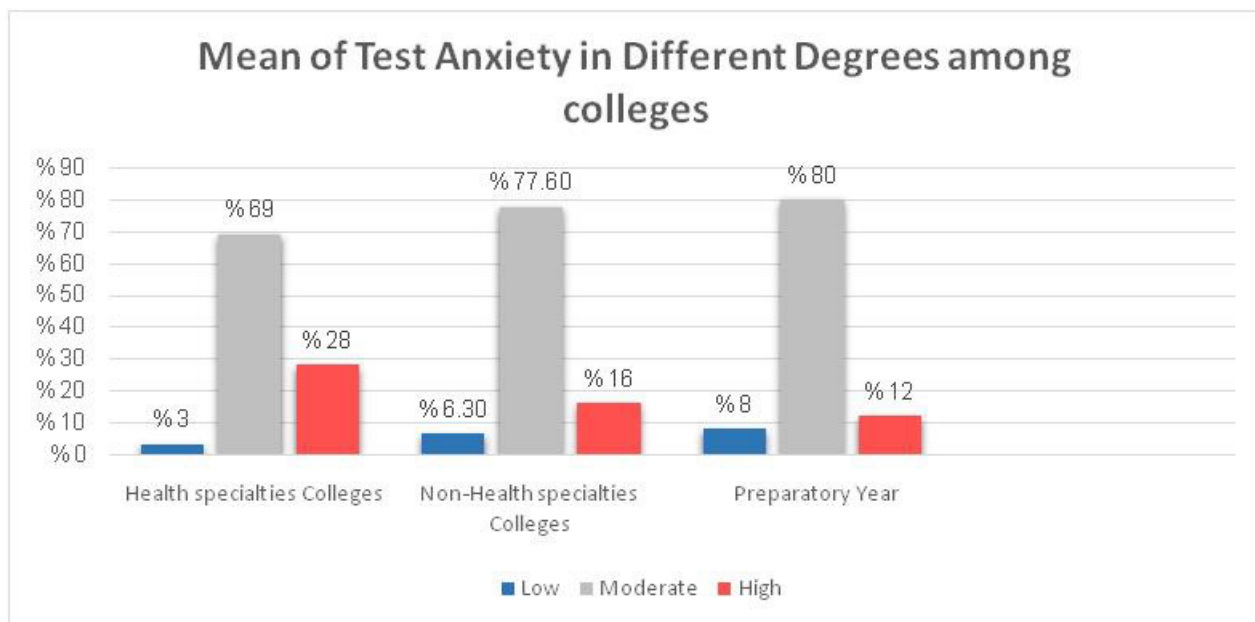


Figure 1. Mean of Test Anxiety in Different Degrees among Colleges

Table 3. Mean of Test Anxiety in Different Degrees

	Degree	Health specialties Colleges (I)	Non-Health specialties Colleges (II)	Preparatory Year (III)	P value		
		N=100	N=237	N=25	I vs II	I vs III	II vs III
	Low	3(3%)	15(6.3%)	2(8%)			
	Moderate	69(69%)	184(77.6%)	20(80%)	0.026*	0.145	0.793
	High	28(28%)	38(16%)	3(12%)			
Total score	Range	(18-46)	(16-48)	(15-42)			
	Mean ± SD	31.7±6.7	30.2±6.4	29.5±5.7	0.046*	0.123	0.611

- Chi square test for qualitative data between groups
- One Way ANOVA test with post hoc LSD analysis between each two groups
- *: Significant level at P value < 0.05

in health college (28%), while the frequencies of students with low and moderate anxiety were significantly increased in non-health colleges.

Table 3 shows a comparison between different students' category and the level of test anxiety. Comparing health and non-health colleges, the frequency of students with high anxiety was significantly increased in health college (28%), while the frequencies of students with low and moderate anxiety were significantly increased in non-health college. There was significant increase in the anxiety score in health colleges compared with non-health colleges.

DISCUSSION

Test anxiety is considered as a challenge, which had extraordinary effects on students' outcome. Test anxiety of most of the participants in this study was low and moderate. The prevalence of high level of test anxiety among students who are engaging in university required subjects' examination was (19.1%). These results are in the same line with Dordi Nejad (2011) study for college students. Dordi Nejad et al., (2011), found that 20.7% college students have high levels of anxiety. The findings were also similar to the study completed by Chapell, Blanding, Silverstein, (2005) who stated that majority of nursing students had either one of moderate or high level of test anxiety. Also Dawood (2016) found that test anxiety of most participants were mild and moderate. Only 14% had severe test anxiety.

In another study by Asayesh et al. (2016), they found that 34.4% of students had high level of test anxiety. These results are dissimilar with earlier study for college students done by (Kavakci et al., 2014) who found that high level of test anxiety was found in 55.8% girls of the study population.

The results of our study show that anxiety level among King Faisal University students differs according to the specialization and academic level. The third and fourth level students had higher level of test anxiety. Ergene, (2011) found that the test anxiety level is affected by students' characteristics. Also, Seipp and Schwarzer, (1996), reported that Korean undergraduates had the highest test anxiety levels, while Chinese and Japanese had the lowest test anxiety levels among the 14 different countries in their study. In another study in Saudi Arabia done by Aziz N (2017) they found that there was high prevalence of test anxiety (53.04%) between the medical students in Umm Al-Qura University.

Opposite to our results, the study of Dawood (2016), found that there is no significant relationship between test anxiety and undergraduate students' age or characteristics. In addition, another study done by Durakua (2017), found that throughout the academic year, a decrease in students' levels of anxiety can be

recognized, which was in contrary to our results. Ebrahimi and Khoshshima (2014) reported that age does not play a significant role in the relationship between learners' test anxiety which was in contrast with our results.

CONCLUSION

Anxiety is a natural response categorized by feelings of stress, anxious thoughts, and bodily alterations like raised blood pressure. Test anxiety includes set of responses, which are experienced by students while taking exams. Agitation, extraordinary body movements, problem in focusing, sleeplessness, tiredness, muscle spasm, abdominal discomfort, and tremors are test anxiety responses which have harmful effects on the students' lives and career development. Moderate levels of anxiety are motivating and can improve students' test performances. However, high level of anxiety could hinder and interfere with their academic performance. The current study focuses on the test anxiety level among undergraduate King Faisal University students. In this study, high level of test anxiety is noticed in the students. Also, the result confirmed that there is a relationship between test anxiety and students' characteristics.

Declaration of Interests

We declare no competing interests.

Data Availability

The data utilized to support the results of the research are accessible with the corresponding author upon request.

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