

## *Study of Test Anxiety and Its Related Factors in Students of Behbahan Faculty of Medical Sciences in 2018*

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### **ABSTRACT**

**Introduction:** Anxiety is a mental affair caused by anxiety or nervousness and is associated with the stimulation of the nervous system. One of the common types of anxiety is anxiety over the test, which is usually known as test anxiety. The test anxiety generally decreases performance and undermines students' academic achievement. Nursing students also face a high level of anxiety. Since nursing students have been affected by many stresses during the years of study at the Nursing Faculty and high volume of courses is one of the most important causes of anxiety, this study aimed to determine the test anxiety and its related factors in students of the Behbahan Faculty of Medical Sciences was done.

**Methods:** This is a descriptive correlational study that was conducted on 174 students of Behbahan Faculty of Medical Sciences in 2018 who were randomly selected among male and female students of four years of study in different fields of study Nursing, operating room and occupational health was selected. The criteria for entry into this study were satisfaction for participation in the study and one to eight-semester students from the faculty of nursing, operating room, and occupational health Behbahan Faculty of Medical Sciences. Graduation criteria for the completion of the questionnaire were incomplete. The data collection tools were demographic information and a test anxiety questionnaire (Sarason). Data were analyzed by SPSS software version 20 and descriptive and analytical statistics.

**Results:** The sample consisted of 174 nursing and midwifery students (71 males (40.81%) and 103 females (59.2%) with a mean age of  $21.10 \pm 1.50$ . The mean test anxiety score of students was  $15.49 \pm 6.41$ . 50 students (28.73%) had mild test anxiety, 84 students (48.27%) had average test anxiety and 40 students (22.98%) had severe test anxiety. There was a significant relationship between the mean test anxiety with the academic year, gender, marital status, place of residence, and educational level ( $P < 0.05$ ). But there was no significant relationship between anxiety, academic field, and grade gained ( $P > 0.05$ ). There was no significant correlation between the test anxiety score and the age of the subjects, and the correlation coefficient was negative.

**Conclusion:** Considering the anxiety of the test at different levels in all students, the destructive effects of this anxiety on the health and performance of students; Effective planning and psychological interventions are suggested.

**Keywords:** Anxiety, Test, Students, Nursing.

**Address for Correspondence Author****Dr. Zeinab Shajirat;** Faculty of Medical Sciences, Behbahan, Iran.**E-mail:** [zeinab.shajirat@gmail.com](mailto:zeinab.shajirat@gmail.com)**Crossref Doi:** <https://doi.org/10.36437/irmhs.2020.3.6.D>**Introduction**

Anxiety is a mental affair caused by anxiety or nervousness and is associated with the stimulation of the nervous system.<sup>1,2</sup> Anxiety can be described as a perceived concept of psychological distress that occurs in the face of worrying expectations and potentially threatening events. Although extensive research has focused on the concept of anxiety, it cannot be understood in the exact and objective sense.<sup>3</sup>

One of the common types of anxiety is anxiety over the test, which is commonly known as test anxiety.<sup>4</sup> This type of anxiety occurs when an individual is evaluated in a test or by a test director. Participants in the test may experience a feeling of distress due to the fact that their performance is carefully assessed in the test.<sup>5</sup>

Test anxiety is considered a serious problem for many students, which is ultimately a powerful barrier to learning in educational settings.<sup>6</sup>

Anxiety plays an important role in the learning of students and their academic performance. In addition, anxiety is known as a facilitator and disabling factor in academic achievement. Researchers have been looking at the relationship between anxiety and its effect on students' academic performance. They conclude that high school students with a higher level of anxiety have poorer academic performance.<sup>7</sup>

Psychological symptoms in students with an anxiety disorder are lack of interest in learning, poor performance in tests, nervousness before the start of an educational class, panic, feelings of helplessness in doing homework, or lack of interest in learning difficult subjects. While the physiological symptoms include cold sweats, anger, fear and panic, fast breathing, fast heartbeat, and stomach upset.<sup>8</sup> The test anxiety generally decreases performance and undermines students' academic achievement.<sup>9</sup> Nursing students also face a high level of anxiety. For example, the notion that even a small mistake may seriously harm a patient will create anxiety in these people. Also, test anxiety is one of the other causes of anxiety in nursing students.<sup>10</sup>

Since nursing students are affected by many stresses during the years of studying at the Nursing School and a high volume of courses is one of the most important causes of anxiety, this study aims to determine the test anxiety and its related factors in the students of the Behbahan Faculty of Medical Sciences.

**Methods:** The current study is a descriptive correlational study. The aim of this study was to determine the test anxiety and its related factors among 179 students at Behbahan Faculty of Medical Sciences in 2018. A simple random sample was selected among male and female students of four years of study in nursing, operating room, and occupational health.

During the study, the researchers were bound to keep the secrets and observance of research ethics and all students had informed consent before entering the study.

The criteria for entry into this study included satisfaction for participation in the study and one to eight-semester students in the field of nursing, operating rooms, and occupational health of the Behbahan Faculty of Medical Sciences and the exit criteria were incomplete to complete the questionnaire. Measurement tools of this research were: Demographic Information and Test Anxiety Questionnaire (Sarason). The demographic questionnaire included age, sex, marital status, grade, ethnicity, study hours, place of residence, year of entry.

Test anxiety is a set of physical, psychological, and behavioral responses that are identified when preparing for an exam and performing a test. Due to the negative consequences of this type of anxiety, especially in students, psychologists have always sought to evaluate and cure it. One of the tools used to assess and test anxiety disorder is Sarason's Anxiety Inventory. Sarason's Anxiety Test Questionnaire has 37 items that should be answered as "Yes and No." The higher the individual score in the questionnaire, the greater the anxiety of the exam. Considering the proper psychometric properties and the existence of standard cutting scores for this questionnaire, it is very suitable for testing anxiety. A higher score indicates anxiety for the exam and the individual will be ranked in one of these three categories according to the score:

- Mild anxiety: score 12 and lower
- Moderate anxiety: score 13 to 20

- Severe anxiety: score 21 and above

The validity and reliability of this questionnaire have been evaluated in several studies and with the alpha coefficient of Cronbach 0.88 and internal consistency of 0.95 and the standard validity of 0.72, which is generally acceptable (Quoted by Beyabangard, 2007).<sup>11</sup>

The researchers then provided the original sample selection and student satisfaction with the relevant questionnaires. The subject matter was fully explained to them. Data were analyzed by SPSS software version 20 and descriptive and analytical statistics.

### Results

The sample consisted of 174 students of Behbahan Faculty of Medical Sciences in with an average age of  $21.10 \pm 1.5$ . The results showed that 71 males (40.81%) and 103 males (59.2%) were among them, of which 21 were Associate Degree and 153 were undergraduate. Table 1 shows other demographics of these individuals.

The mean test anxiety score of students was  $15.49 \pm 6.41$ . So that the highest score is 25 and the lowest score is 2. 50 students (28.73%) had mild test anxiety, 84 students (48.27%) had average test anxiety and 40 students (22.98%) had severe test anxiety.

There was a significant relationship between the mean test anxiety with the academic year, gender, marital status, place of residence, and educational level ( $P < 0.05$ ) (Table 1). But there was no significant relationship between anxiety, academic field, and grade gained ( $P > 0.05$ ).

Students in this college had significantly more test anxiety than boys ( $P < 0.001$ ) (Figure 1). Associate students in this college, there was a significant difference between the test anxiety and the undergraduate students ( $P < 0/0001$ ) (Chart 2). Also, students who had an average reading time of 4 to 6 hours per

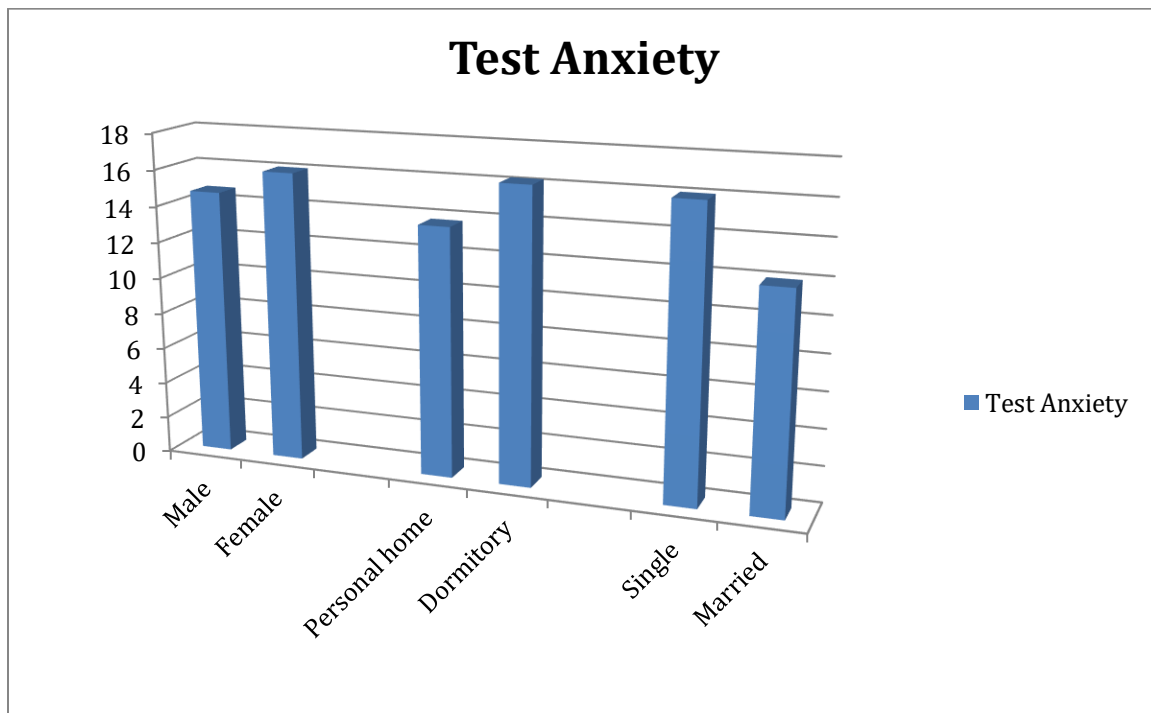
day had significantly higher test anxiety than others ( $P < 0.0001$ ) (Figure 3). Figures 1, 2, and 3 show the average test anxiety score in students based on demographic data. There was no significant correlation between test anxiety score and age ( $P = 0.064$ ).

Variable	Classification	Number	Percentage	Relationship with Test Anxiety
Gender	Male	71	40/08	*P<0/0001
	Female	103	59/02	
Marital status	Single	151	86/08	*P<0/0001
	Married	23	13/02	
Field of Study	-	97	55/07	P=0/05
Nursing	-	56	32/02	
Occupational Health	-	21	12/01	
Grade Associate Degree	-	21	12/01	*P<0/0001
	-	153	87/09	
Academic year	First year	45	25/09	*P<0/0001
	Second year	76	43/07	
	Third year	50	28/07	
	Fourth year	03	1/07	
Location	-	52	29/09	*P<0/0001
Personal home Dormitory	-	122	70/01	
Study hours per day	-	117	67/02	*P<0/0001
Up to 2 hours	-	42	24/01	
2 to 4 hours	-	06	3/04	

4 to 6 hours	-	09	5/02	P=0/79
More than six hours	-			
GPA Under 12	-	04	02/03	
12 to 14	-	04	02/03	
14 to 16	-	54	31/00	
16 to 18	-	90	51/07	
18 to 20	-	22	12/06	

**Table1. Demographic Characteristics of Nursing and Midwifery Students and their Relationship with Exam Anxiety**

\*A significant level below 0.05 is considered.



**Figure 1. The Average Test Anxiety Score for Students in Terms of Sex, Residence and Marital Status**

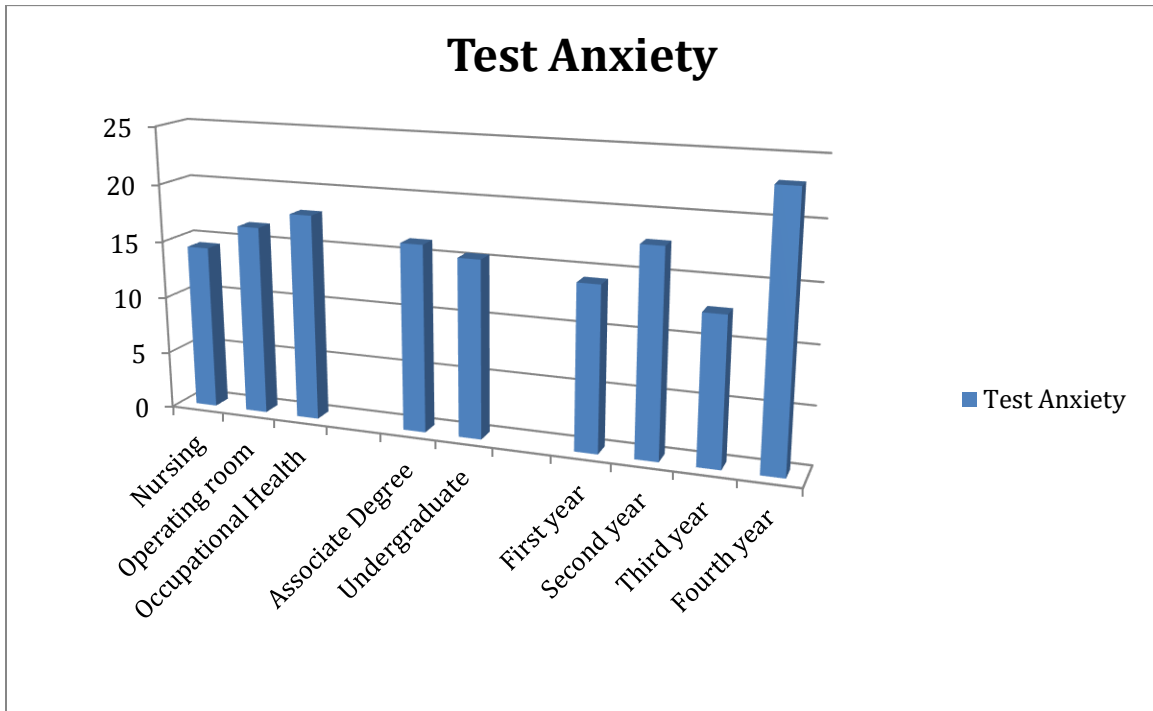


Chart 2. The average Test Anxiety Score for Students in Terms of Discipline, Grade, and Academic Year.

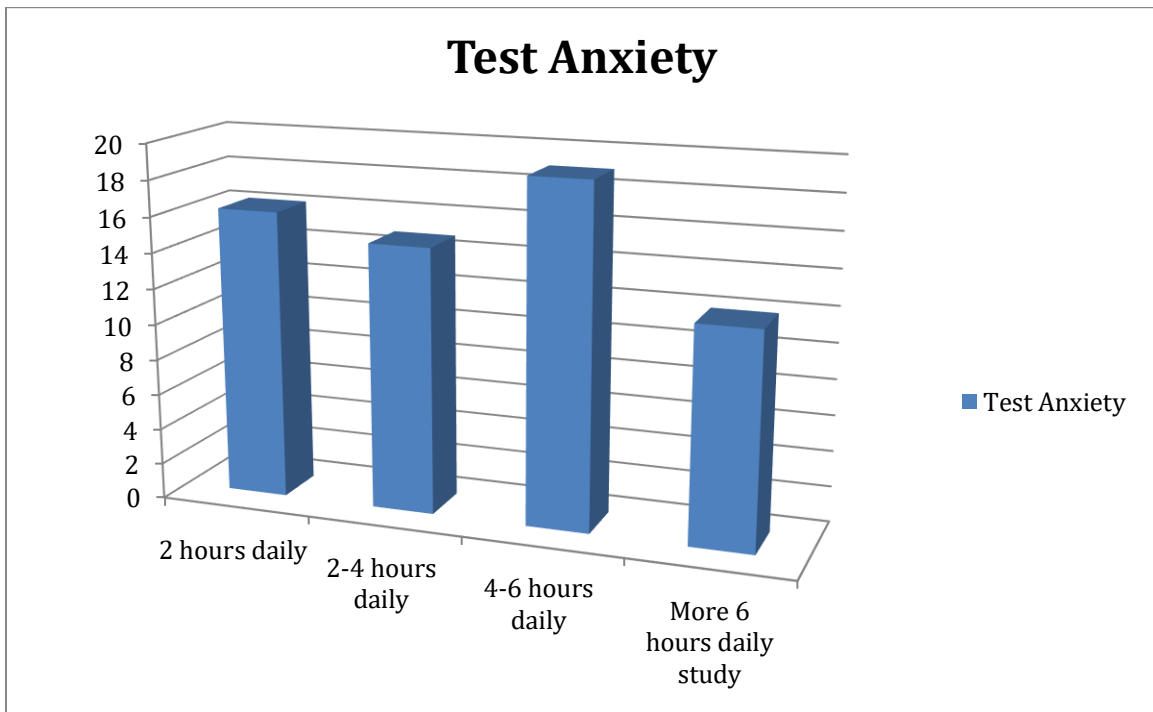


Figure 3. The Average Test Anxiety Score for Students in Terms of Study Hours Per Day

### Discussion and Conclusion

According to the results of the present study, the anxiety score of the students was  $41.61 \pm 5.15$  and all the students had different test anxiety levels (28.43% mild 48.27% moderate, and 22.98% severe anxiety). In the study, the mean score of anxiety was lower and 13.65% and only 52.2% of participants had a significant degree of exam anxiety. In this study, there was a significant relationship between the test anxiety and gender, marital status, There was no significant statistical relationship between the educational level.<sup>12</sup> However, the study of Arsang and his colleagues who examined the relationship between spiritual intelligence and test anxiety in midwifery and nursing students does not confirm the relationship between age, sex, marital status, religion, family residence with exam anxiety, but the lack of correlation between the grade of the grade and the test anxiety and only 53.72% of students have anxiety tests. The study also states that there is a significant and inverse relationship between spiritual intelligence and test anxiety while the average spiritual intelligence of the students studied was  $47.149\% \pm 7.21\%$  and only 37.2% of them had test anxiety. In fact, it can be said that spirituality Improves the mental health of individuals and with positive outcomes such as self-esteem and decreased anxiety.<sup>15</sup> The Moghimiyan study also states that there is a significant negative relationship between spiritual health and test anxiety ( $p = 0.01$ ), ( $r = 36\%$ ), but does not confirm the relationship between demographic characteristics and spiritual health and test anxiety.<sup>18</sup> Also, Yazdani studied the relationship between test anxiety and girl nursing student's academic performance. Anxiety tests at different levels (25% test

anxiety test, 42.5% average test anxiety and 5.32% for severe anxiety test), but there is no significant relationship between test anxiety and grade gained, and a significant relationship between age and condition Marriage does not endorse the test anxiety.<sup>13</sup> However, in the study of Dortaj and colleagues who study the level of anxiety and its related factors in students, it does not confirm the relationship between age and sex and the lack of relation between the field of study and the test anxiety and significantly increases the gender of the male relative anxiety is higher because girls are likely to be encouraged to accept the test anxiety and accept it as a feminine attribute and learn that when Passive anxiety surrenders while boys encounter defensive admission and threaten their masculinity, and perhaps less men's anxiety may be due to their lower sensitivity to education, academic competition, and willingness Most of them are related to employment.<sup>12</sup> The results of the study of Saheb Alzamani studying students' study and learning strategies and its relationship with the test anxiety levels were also tested in terms of exam anxiety at different levels in line with the present study. This study also shows a significant reverse relationship between test anxiety and all areas of study and learning strategies at levels  $p < .05$ .<sup>14</sup>

Also, the results of various studies indicate that there were no significant differences in the factors such as the beginning of the semester of October or February.<sup>13</sup>, the number of family members, an employee or an occupation, parenting education.<sup>12</sup>, test anxiety And test anxiety in students who are conditioned are more than non-contributing

students.<sup>13</sup> Also, the results of the study of Hatami and Ardalan with the subject of examining and comparing the level of students' test anxiety and its relationship with some demographic characteristics did not confirm the results of this study and only confirmed the relationship between the educational level and the test anxiety and as the study suggests, college students have a higher level of anxiety than other students. It also does not confirm the relationship between the field and test anxiety and states that there is a significant difference between different fields of study with anxiety. So that the students of the laboratory sciences had a higher level of anxiety.<sup>21</sup> The difference between the results of the students' anxiety test can be attributed to the effect of the test anxiety on various factors and the perception of individuals from these factors, so that yaghobi believed that managing time management would reduce students' test anxiety because using management techniques Time improves performance, allocates more time to tasks with higher priority and accelerates the progress of affairs. Also, time management affects people's mental health and reduces work stress.<sup>16</sup> Also, studies of Akbaryboorang and Nikmanesh, state that there is a meaningful reverse relationship between academic self-efficacy and test anxiety because the person's perception of one's ability is one of the most important factors in dealing with anxiety situations and, on the other hand, students who are self-efficacious They have a higher willingness, effort, and perseverance in exercising tasks and are confident in their abilities.<sup>17,20</sup> Ghaffari studies with topics related to the motivation of progress and self-concept with test anxiety in students and the self-concept of hospitalization for

reducing anxiety indicate that there is a significant relationship between self-concept and test anxiety and those who have a positive and constructive perception of themselves and their abilities in the dimension, especially in educational, educational, and introspection, have such a self-perceptual self-perception as a barrier to the appearance of inappropriate thoughts and actions in all areas of life and situations Fateful action is<sup>19,22</sup>. Also, although a large part of the difference in the rates reported in various studies can be attributed to these factors, but since the anxiety score of individuals is measured by self-declaration, as well as due to individual differences, the perception of individuals of their feelings It is different from the results of the studies. The use of different instruments to measure the amount of anxiety also does not affect these differences.<sup>12</sup>

This study did not have any particular limitations, and only the limitations of this study could be the impact of psychological states of the person at the time of completion of the questionnaire, lack of time and honesty in completing the questionnaire, lack of understanding and proper recognition, and incomplete completion of the questionnaire.

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