

Exam Anxiety among Nursing Students at Al-Ahliyya Amman University and Its Relationship with Some Variables

Husam Al Khatib

Al-Ahliyya Amman University, Jordan

Abstract This study aims at investigating exam anxiety among nursing students at Al-Ahliyya Amman University. One hundred nursing students from Al-Ahliyya Amman University were selected out of 174 who represented the population of the study. For data collection, Test Anxiety Scale developed by (Sarason, 1980) has been employed in this. The results showed that more than one-third of participants had a high level of exam anxiety and half of them had a medium level of anxiety. Regarding gender of students, the study showed that one-third of male students had a high level of exam anxiety. While, less than one-fourth of female students had a high level of exam anxiety. Finally, there was no statistically significant differences between male and female students in terms of exam anxiety and its dimensions.

Keywords Exam Anxiety, Nursing Students, Al-Ahliyya Amman University

1. Introduction

Exam Anxiety is one of the most common complaints among students at all level and secondary school and university students are no exception. An exam is a formal assessment and a summative evaluation of student's cognitive achievement which determines students' success or failure. A certain level of anxiety affects students' performance and therefore influences their academic progress (Timothy & Donna, 1992). Since the 1950s, psychologists have recognized the importance of the relationship between anxiety and learning. The findings of the previous studies have shown that some students achieve lower than their actual ability level because of their increased anxiety. Hence, the term "exam anxiety" has been coined to refer to a type of anxiety that appears in certain situations associated with examinations and evaluation processes (Al-Wahsh, 1998).

Exam anxiety has two types: a) *disruptive anxiety* which is a form of anxiety that affects an individual's behavior during examinations and may significantly affect an individual's performance in exam; and b) *facilitative anxiety* which is the moderate or a normal level of anxiety that does not significantly affect an individual's performance in exam

(Abdul Khaliq and Hafez, 1987). The psychological research studies which were conducted to investigate exam anxiety indicated that both high and low levels of anxiety were the main obstacles that negatively affect students' level of academic achievement and the accomplishment of their goals. A high level of anxiety hinders students' ability to remember, think, judge and perform mentally. On the other hand, a low level of anxiety leads to weakening motivation, while a medium level of anxiety increases motivation (Zahran, 2000).

Hence, exam anxiety can be considered as a motive or an obstacle to mental and academic achievement based on its severity level and the individual differences within the study groups at educational institutions at any learning stage. Spielberger (1980) posits that exam anxiety increases when performance is associated with life decisions of students who aspire to achieve their special goals. The more individual's performance is associated with the exam to achieve their special goals, the higher the level of exam anxiety will be and vice versa. Furthermore, academic achievement can be influenced by the general mental ability of students and can be also considered as an important pattern of the student's mental activity during their study (Spielberger, 1980).

Exam anxiety is a pattern and a form of general anxiety that can be provoked by different exam situations. It represents an individual emotional psychological issue experienced by students during exam period which can be signified and intensified by fear from failure (Abdul-Rahim, 1989). As the study of nursing specialization is one of the areas that requires a lot of time, tremendous effort and sufficient cognitive abilities to succeed, these factors may

* Corresponding author:

Husam09@hotmail.com (Husam Al Khatib)

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contribute to increasing the level of anxiety among nursing students at all levels.

2. Problem of the Study

Studying at university is a distinguished stage within the educational pyramid because it differs from others educational stages in terms of method of teaching, requirements, and results that may lead to either success or failure of students. Academics and teaching faculties at universities consider that the study of nursing subjects' needs more complex abilities and skills such as: time management, effort, cognitive knowledge, language proficiency and technical and soft skills. The main purposes of university education are cognitive achievement, skills acquisition and the extent to which these requirements are achieved. There should be a set of examinations and formal evaluations to determine whether students have successfully passed the stage or not. While this is usually obtained through achievement exams at this stage, exams become the only available means to judge the success or failure of students in the various educational stages. This makes exams associated with awe and fear in the eyes of both students and parents (Khairallah, 1981).

Given the great role they play in the educational process, tests and exams remain an obsession for students. Moreover, their results serve as measures to distinguish students to move from one stage to another. Based on the results of the exams, the certificates are issued to determine the fate of students to join a job or pursue a postgraduate position which help them get the desired social status. Success is a dream for every student, while failure is the destructive factor of all aspirations, which might cause severe disappointment and dissatisfaction. Sometimes, there are factors that affect students' success and their ability to reach their goals such as: fear of the exam and a sense of awe which is known as exam anxiety. Hence, this can affect their performance negatively and impede their success despite having the cognitive and skills knowledge which necessary to succeed. Based on the aforementioned, the problem of the study can be identified in the following main research question: What is the level of exam anxiety among nursing students at Al-Ahliyya Amman University?

3. Objectives of the Study

The study aims at:

1. identifying the level of exam anxiety among nursing students at Al-Ahliyya Amman University.
2. examining whether there is a statistically significant difference between the levels of exam anxiety among nursing students at Al-Ahliyya Amman University which can be attributed to the variables of sex, age and level of study.

4. Questions of the Study

This study aims at answering the following research questions:

1. What is the level of exam anxiety among nursing students at Al-Ahliyya Amman University?
2. To what extent is the level of exam anxiety among nursing students at Al-Ahliyya Amman University attributed to students' gender, age and level of study?
3. What are the most prevalent symptoms of exam anxiety among nursing students at Al-Ahliyya Amman University?

5. Important of the Study

Investigating the level of exam anxiety among nursing students has a significant importance for the following reasons:

First: Theoretical importance:

1. Knowing the level of exam anxiety among nursing students and understanding its relationship with some variables can contribute to increasing scientific knowledge about the exam anxiety levels.
2. Lack of studies that targeted Arab students and lack of Arabic studies that investigated exam anxiety among nursing students. Therefore, this study sheds more light on a specific sample of university students who have certain study requirements.

Second: Pedagogical implications:

1. The results of this study will contribute to raise the awareness of instructors, test designers and educators about the state of exam anxiety in order to take into account the students' psychological and social status during exam period as a proactive and protective measure and criterion.
2. The results of this study will further help psychologists and counsellors to recognise one of most central problems that faces university students which may require psycho-therapy and psychological support.

6. Terminology

Exam anxiety: Sarson & Sarson (1960) define exam anxiety as the response to perceived danger and inability to carry or perform a mission which is characterized in the students' feeling of incompetent and weak motivation to do the mission he/she is working on. It is also defined as having ideas that significantly underestimate their values, assume failure, and weaken the consideration of others.

7. Concept of Exam Anxiety

Exam anxiety consider as a common psychological

phenomenon that psychologists have been interested in new era. it has become a noticeable phenomenon in individuals, as a result of difficult and complex life conditions. also, anxiety is part of the human life and a dynamic aspect in building personality and basic variable of human neurological, mental and behavioural disorders. Anxiety is a normal phenomenon experienced by human being, as part of human life and forcing him to choose things inconsistent with his desires to meet the demands of society, or the inability to fulfil his desires, tendencies and aspirations that are hampered by many obstacles with increasing life and demands stresses (Abu Azab, 2008). There are many definitions that deal with concept of exam anxiety. In this regard, the researcher will review some of definitions and opinions of psychologist on exam anxiety as follows: -

Gohn (1985) says the exam anxiety is a student's state as a result of increase in degree of fear and tension during passage the exam conditions as well as disturbance in emotional, cognitive and physiological aspects. Spielberger sees the anxiety in general "a personal trait in a specific situation and consists of discomfort and emotion. Also, he defined the discomfort as a cognitive concern of fear of failure, whereas the emotional state is the reactions of the autonomic nervous system, these two components discomfort and emotional are the main factors of exam anxiety (Al-Daheri, 2005:207).

Spielberger (1980) posit that the exam anxiety is a temporary emotional state caused by perception of evaluation position as threatening situations of personality accompanied by tension and stimulate emotional unity, and negative mental preoccupations, overlap with the concentration required during the exam, which negatively affects in mental and cognitive missions in exam position. Abdul-Khaliq and Hafez (1987) believes that exam anxiety is sometimes called as achievement anxiety, it is a type of anxiety related to exam situations make the individual feel fear.

Types of exam anxiety

1. Facilitator exam anxiety: its affects positively and as motivation anxiety drives the student to study, high achievement, and good preparation for exams.
2. Difficulty exam anxiety: it's a high level of exam anxiety effects negatively in the students, where he/she feels nervous, fear, discomfort, and awe increase. this impedes the student's ability to remember, understand, and confuses him when prepares for the exam, also makes it difficult (Zahran, 2000:98).

Symptoms and aspects of exam anxiety

The exam anxiety is a type of a state anxiety, to distinguish it from anxiety attribute, and the symptoms of exam anxiety include (Dhamen, 2003 and Zahran, 2000): -

1. Stress, insomnia and loss of appetite, dominate some thoughts and obsession before and during the nights of the exam.

2. The deeply thinking about exams and preoccupation before and during the exam.
3. Tachycardia, Xerostomia, lips, rapid breathing and sweating, abdominal pain and nausea.
4. Shortness of breath before and during the exam.
5. Disorders of mental processes such as attention and thinking.
6. Emotional horror in which the student feels inability to remember anything.

These symptoms and physiological and emotional behaviour and mental confusion and disruption of the student to perform the necessary missions in the exam. It may be reinforcement by family and school as a result of exam will lead to fateful situations in the future of the student.

Causes of exam anxiety

According to mental health and educational researchers, the exam anxiety is due to many reasons such as (Zahran, 2000:99):

1. Weak of subject's knowledge.
2. Weak of motivation to succeed.
3. Having learning problems, organizing, reviewing information before the exam.
4. Frequency of failure and the relation of exam with student's failure experience.
5. Failure in prepare for the exam.
6. Low of self-confidence.
7. The negative attitudes of students, teachers and parents towards exams.
8. The difficulty of exams and feeling that the future depends on it.
9. Environmental and family stress to achieve an ambitious level that is not commensurate with a student's abilities.
10. Learner's inability and expectation of failure.

Sources of exam anxiety

Educators in this field indicate that the exam anxiety has several sources, including the following:

1. Ambitions, expectations and family concerns.
2. Student motivations.
3. Teacher and teaching methods.
4. Methods of assessment and the circumstances surrounding the exams.
5. Studying Habits (Tayeb, 1996:98).

Al-Kuhaimi (2011) considers that the most important sources of anxiety are psychological stress, life stress, and environment stress which saturated with: fear, illusion, unity, deprivation, and parental disorder.

8. Literatures Review

Hayawi's (2018) identified the effectiveness of a cognitive behavioural counselling program to reduce exam anxiety among students of the University of Basra. Sample of the study consisted of 30 students from social sciences faculty,

were distributed into two groups, experimental group 15 participants and a control group 15 participants. Results of the study showed that the participants of experimental group had a significantly lower level of exam anxiety compared with participants of control group.

Mahdi's (2017) investigated the relationship between exam anxiety and cognitive representation among university students. Sample consisted of 241 students from Iraq republic, the exam anxiety scale and the cognitive representation scale have been used. Results of the study founded a negative statistically correlation between exam anxiety and cognitive representation.

Hawash's and Olimat's (2004) identified the achievement motivation relation to exam anxiety and its impact in english language achievement in primary and secondary school students in Mafrqa governorate. Sample of the study consisting 180 students (99 male & 81 female) from two different school, for purpose of the study, the achievement motivation, exam anxiety, and achievement scales have been used. To obtain the results, means, standard deviation, and ONE-WAY ANOVA have been calculated. Results of the study presented that the level of student's achievement in English subject differ according to their level of motivation. This cannot be attributed to the exam anxiety, class level, or interaction between them. Results also showed that there is no different between students in their motivation for achievement according to their grade levels. While, there is different between students in test anxiety according to level of the students in favor of ninth grade.

Adibi's (2001) studied the relationship between creative thinking abilities, recall habits and exam anxiety on the other and includes innovative thinking. Sample of the study consisted of 227 male and female students from university students from (education, science and Arts faculty), and students from general secondary school and in Bahrain state. The researcher adopted on creative thinking abilities, recall habits and exam anxiety scales, and one-way analysis of variance, t-test and correlation coefficient of Pearson are used. Finally, results of the study indicated that there is a positive statistically significant correlation between ability of creative thinking (emanation, originality and creative ability) and work methods; and there are significant statistical differences among highly creative ones in their work methods. It was also found that there is a positive statistically significant correlation between originality and creative ability on one hand and recall manners and attitudes towards learning on other hand, whilst there are no statistical correlations between ability of creative thinking ad learner satisfaction variables.

9. Methodology

Following the objectives and research questions of the

current study, the researcher adopted the descriptive analytical method.

Population and study Sample

The population of the study includes 174 nursing students at Al-Ahliyya Amman University for the academic year 2018/2019. The sample of the study consists of 100 students representing 58% of the population of the study as illustrated in the following table:

Table (1). Sample characteristics

		Frequency	Percent	Valid Percent	Cumulative Percent
Age	18-21	64	64.0	64.0	64.0
	22-25	27	27.0	27.0	91.0
	26-30	9	9.0	9.0	100.0
	Total	100	100.0	100.0	
Sex	Female	59	59.0	59.0	59.0
	Male	41	41.0	41.0	100.0
	Total	100	100.0	100.0	
Level of the study	1	33	33.0	33.0	33.0
	2	32	32.0	32.0	65.0
	3	20	20.0	20.0	85.0
	4	14	14.0	14.0	99.0
	5	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

Tools of the study

The researcher adopted the Exam Anxiety Scale developed by (Sarson, 1980). The exam anxiety scale comprises 38 items divided into four dimensions: discomfort, behavioural cognitive confusion, cognitive panic, and physiological symptoms.

Validity and reliability

To maintain the internal consistency or reliability of Sarson's (1980) exam anxiety scale, Cronbach's alpha statistic has been calculated and the value was 0.81. The Criterion-related Validity was 0.59 (Zeidner & Matthews, 2003). In this study, validity and reliability of the scale have been calculated by using Cronbach's alpha to measure internal consistency or reliability and the value was 0.93, while the validity of the scale has been calculated by using the correlation coefficient of each item to the total score of the scale. The correlation coefficients ranged between 0.26 to 0.70 and all items were statistically significant which can be considered as a good indicator of the validity of the scale.

10. Results of the Study

Q1: 1. What is the level of exam anxiety among nursing students in Al-Ahliyya Amman university?

Table (2). Presents repetition and percentage of level of exam anxiety among participants

Exam anxiety level	N		Male		Female	
	Repetition	100%	Repetition	100%	Repetition	100%
Low: 75 and less	19	19%	11	18%	8	19%
Medium: 76 – 104	54	54%	30	51%	24	59%
High: 105 and more	27	27%	18	31%	9	22%
Total	100	% 100	59	100%	41	100%

Table (2) indicated that more than of half of participant are suffering medium levels of exam anxiety. And One-third of the sample are suffering high levels of exam anxiety, related to gender of participant, the results found out that One-third of male students suffering of exam anxiety, while less than 25% of female students suffering of exam anxiety. This can be explained through the following table (3).

Table (3). Presents the most influential items among students

item	N	Mean	Std. Deviation	Item	N	Mean	Std. Deviation
13	100	2.94	.80177	a20	100	2.37	.93911
1	100	2.75	.89188	a16	100	2.37	.88369
2	100	2.67	.96457	a15	100	2.36	.81054
8	100	2.67	.97499	a31	100	2.36	.88215
32	100	2.65	.92524	A33	100	2.34	.84351
19	100	2.63	.94980	a23	100	2.34	.89013
12	100	2.62	.87363	a29	100	2.33	.84154
4	100	2.59	.96499	a6	100	2.33	2.08920
26	100	2.56	.90252	a18	100	2.31	.83720
5	100	2.56	1.06667	a36	100	2.30	.83485
10	100	2.55	.94682	a27	100	2.25	.96792
3	100	2.49	.99995	a17	100	2.23	.90849
24	100	2.46	.83388	a30	100	2.18	.89194
38	100	2.45	.90314	a21	100	2.16	.90699
14	100	2.45	.92524	a37	100	2.16	.81303
9	100	2.41	.92217	a11	100	2.16	.95049
25	100	2.41	.95447	a22	100	2.07	.97706
34	100	2.38	.96169	a7	100	2.06	.94088
35	100	2.38	.85019	a28	100	2.04	.87525

Table (3) indicated that the most influential item is number (13): I feel nauseous, shivering when the teacher asks a question. While the items number (1): I feel annoyed at every question the teacher asks me to make sure I learn the lesson, has ranked the second one. Whereas, the lowest influential items among the participant is items number (35): I feel anxious and worry when the teacher declares how much time is left for the exam.

Q2: Is there statistically significant in level of exam anxiety among nursing students in Al-Ahliyya Amman university attributed to the sex, age, and study level variables?

Table (4). Manifests t-test results to know the differences between males and females in exam anxiety

Sex	Mean	St. deviation	N	t	df	Sig
Male	92.12	19.75	59	0.459	98	0.648
Female	90.22	21.23	41		82.099	

*Significant at ($\alpha \leq 0.05$)

Table (4) showed that there is no statistically difference in level of exam anxiety between male and female students.

Table (5) indicated that there are no statistically difference in level of exam anxiety between students on the base of age and level of study variables.

Q3: What are the symptoms of exam anxiety most prevalent among nursing students at Al-Ahliyya Amman University?

Table (5). Shows ONE WAY ANOVA results to know the differences between the participant in exam anxiety with respect of age and level of the study of the students

Variable	S. of Variance	Sum of Sq	df	Mean Sq	f	α
Age	between group	3660.274	11	332.752	0.790	0.649
	within group	37074.166	88	421.297		
	Total	40734.440	99			
Level of the study	between group	1025.431	4	256.358	0.613	0.654
	within group	39709.009	95	417.990		
	Total	40734.440	99			

*Significant at ($\alpha \leq 0.05$)

Table (6). Shows results of means and standard deviation of symptoms of exam anxiety

Symptoms	N		Female		Male	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Discomfort	34.00	7.476	33.14	8.08567	34.59	7.03224
Cognitive behavioural confusion	25.77	6.444	26.24	6.37879	25.44	6.52388
Emotional panic	20.89	5.243	20.65	5.47544	21.05	5.11733
Physiological	15.51	3.983	15.07	3.49564	15.81	4.29304

Table (6) presented that the highest symptoms dimension among both of male and female students is discomfort symptoms, then cognitive behavioural confusion symptoms, and emotional panic symptoms. While, the lowest one is the physiological symptoms.

11. Discussion and Conclusions

Results of the study indicated that more than half of the participants were suffering from medium levels of exam anxiety. Whereas one-third of the participants were suffering from high levels of exam anxiety. Regarding the effect of the gender of participant, the results revealed that one-third of male students were suffering from exam anxiety, while less than one-fourth of female students were suffering from exam anxiety. Furthermore, the results of the study revealed that the most influential item was: *I feel nauseous, shivering when the teacher asks a question*. Whereas, the least influential items among the participant was: *I feel anxious and worry when the teacher declares how much time is left for the exam*. The findings further proposed that there was no statistically significant difference between students' level of exam anxiety and their gender, age, and level of study. Finally, the results showed that the most prominent symptom among both male and female students was discomfort symptom, while the least prominent symptom was the physiological symptom.

The high level of exam anxiety among nursing students at Al-Ahliyya Amman University can be explained according to lack of subject's knowledge and expertise, study method problems, or the feeling that the students' career future depends on the results of exams. Moreover, a large number of Al-Ahliyya Amman University students' sample of the study are foreign students. Therefore, such a high level of anxiety might be due to environmental and family pressure to achieve high and reach an ambitious level that is not commensurate with the students' abilities. It seems that such a pressing environment with high demands are difficult to achieve in light of the student's stress caused by homesickness. These potential reasons affect both male and female students. Thus, the results showed that no significant differences in exam anxiety between both genders. Moreover, the level of study at university did not interact with exam anxiety because the students who had exam anxiety in the first year of the study, he/she would suffer from exam anxiety throughout all university study years. Severe exam anxiety requires psychological care and treatment and

cognitive behavioural programs. It is predicted that such services were not provided to the participants in this study. Therefore, the results of the study showed that students from different levels of the study suffered from exam anxiety.

The most common symptoms between students were discomfort symptoms and the lowest on was physiological symptoms. This might be due to the youth age stage in which students' physical health is a good and therefore they might have resistant to exam anxiety. It is also possible that some students may be more resistant because of their prevailing culture which does not accept any physical complaints. More than half of the participants are male, and hence they may express fewer physical complaints. The results of this study are in line with results Adibi (2001) and Hawash and Olimat (2004).

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