Kermanshah University of Medical Sciences

Assessing the Anxiety Level in Nursing Students at the Commencement of their Academic Year

Original Article

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Article Info

Abstract

Introduction: Anxiety is a subjective response that occurs when a person experiences a threat to their well-being. Each new academic year brings challenges (i.e., anxiety) and new situations for the students, which may cause anxiety in a majority of the students, especially for those enrolled in medical or paramedical courses, due to the stressful working environment. Female students are more prone to anxiety disorders. Anxiety may impair learning and performance. Hence, this study aimed to evaluate the anxiety level among nursing students of Kirkuk University, Iraq, at the commencement of their new academic year.

Methods: In this descriptive study, data were collected by Beck's anxiety inventory scale. A stratified random sampling was performed, which included both male and female students (100 students), with 25 students from each stage. The data were analyzed by SPSS 22 software using descriptive methods.

Results: The findings of this study revealed that the second and the third stages reported higher anxiety levels (64 and 40%, respectively) than the first and fourth stages (32 and 35%, respectively). The female students reported higher anxiety levels (44% for mild level, 50% for moderate level, and 2.38% for severe level) than the male students (37.5% for mild level, 31.25% for moderate level, and no frequency for the severe level).

Conclusions: Based on the study results, we conclude that high anxiety levels were reported by the second and third stages, and that these levels were higher in females. Further studies are recommended to explore the anxiety factors in students and to find appropriate measures to reduce their anxiety.

Introduction

Anxiety is a vague feeling of dread or apprehension; it is a response to the external or internal stimuli that can have behavioral, emotional, cognitive, and physical impacts (1). Approximately, 20% of youth experience an anxiety disorder (2). Anxiety is distinguished from fear, which indicates feeling afraid or threatened by a clearly identifiable external stimulus that represents danger to the person (3). It is unavoidable and may motivate the person to react to a problem or to resolve a crisis. Anxiety is considered as a normal reaction when it is appropriate to the situation and dissipates when the situation has been resolved (4). Anxiety disorders comprise several conditions that share a key feature of excessive anxiety with ensuing behavioral, emotional, cognitive, and physiologic responses (5). There are two forms of anxiety: 1. exogenous anxiety: anxiety that arises as a result of environmental trigger and is psychological rather than biological in origin; and 2. endogenous anxiety: anxiety that is postulated to have a biological cause and to follow a predictable developmental path from anxiety attacks to onset of agoraphobia and depressive illness

(6). Generally it differs from stress. Stress occurs normally in our daily life and does not have a good or bad connotation (7). Anxiety may contribute to several different effects such as physical, emotional, cognitive, and behavioral effects (8). Political issues, security troubles, and economic crises, as well as the endless conflicts among denominations in a city like Kirkuk could be a direct cause for exogenous anxiety among the citizens, and especially the students. In such environment, each day brings new challenges. Students are more affected, as along with their studies, they are also concerned about the local issues. A person's cultural background influences their emotions and expressions, along with anxiety (9). A cross-cultural comparison of anxiety among college students revealed different results (10).

Despite all the anxiety induced circumstances in Kirkuk city, the impact of such circumstances on the citizens and mostly on students still needs to be explored. In general, students usually experience anxiety during their study hours, and it forms a major concern among college students (11). Nursing students are prone to many mental disorders, anxiety being the most common (12). Pulido-Martos et al. reported that the

nursing students are mostly affected by academics related stress (13), whereas Sharif and Masoumi in their research on "a qualitative study of nursing students experiences of clinical practice" reported that anxiety in nursing students is a cause of their initial clinical experience (14); therefore, it is necessary to explore the anxiety effects in order to help the nursing students overcome them. Papazisis et al., in their study about "Psychological distress, anxiety, and depression among nursing students in Greece" reported that nursing students experience different levels of anxiety and depression (15). Another study by Papazisis et al. on "Anxiety and depression among nursing students in Greece" reported that a majority of students (71.8%) perceived stress (16). Sharma and Kaur, in their study about "Factors associated with stress among nursing students" suggested that 97% of nursing students revealed moderate anxiety and that academic studies impact anxiety (17). Another study by Shapiro on "Test anxiety among nursing students" reported that 30% of nursing students experience test anxiety (18). Nirmala et al., in their study about "Self-esteem and anxiety among nursing students" stated that nursing students reported different levels of anxiety (19).

Based on the aforementioned data, considering anxiety as a multidimensional phenomenon with inherent variables (temperament, personality, problem solving skills, etc.) and inspecting the environmental and cultural impacts on anxiety, the present study aimed to evaluate the anxiety levels among nursing students and to study the cross-cultural and gender effects on anxiety.

Materials and methods

This study included a stratified random sampling method, comprising four strata. A total of 100 participants including both males and females were enrolled (25 from each stage). The study was conducted in the College of Nursing, Kirkuk University, Iraq (established in 2002). The study questionnaire comprised two sections: part I included sociodemographic items like age, stage, and gender and part II included Beck's anxiety inventory (BAI), which is an anxiety disorder test that evaluates the rate of anxiety symptoms affecting a person in 1 week (20). BAI was initially introduced in 1988 by Aron Beck (21). The English version of BAI questionnaire was used for this study. The test–retest reliability and internal consistency of the scale were examined with a sample of

40 outpatients having anxiety disorders. The scale also displayed good internal consistency (Cronbach's alpha = 0.94) and acceptable reliability over an average time lapse of 11 days (r = 0.67) (22). For this study, the Cronbach's alpha value was 0.79.

This study was approved by the College of Nursing, Kirkuk University, and written informed consent was obtained from all patients after briefing them regarding the study protocol. The data was collected from 8 to 16 January, 2016. The data was coded, tabulated, and presented in a descriptive form. The statistical analysis included descriptive statistics (frequencies and percentages) and inferential statistics (chi-square test).

Results

Table 1 presents the 100 samples that are included in the study, 25 participants from each stage, comprising 21 females and 4 males. The frequency of age groups and their percentage according to the stages, the higher frequency of the age groups is (57,100.0) for the age group (20 -<23).

Herein, we discuss the presence of different levels of anxiety in the four stages. As it is clear from the table, of the maximum anxiety level is observed in the second and third stages. The second and fourth stages recorded the highest frequency in the minimal level (37, 5%) of anxiety. The second and third stages recorded the highest frequency in the mild level of anxiety (37, 2% and 23, 2%, respectively). The first stage recorded the highest frequency in the moderate level of anxiety (34, 0%), when compared with the third and fourth stage (13, 27.65%). Severe levels of anxiety were recorded only in the second and third stages (1, 50%).

It is clear from the table that the highest level of anxiety was present in mild (25, 58.13) and moderate (24, 52.17) for the age group (20 - <23), and these two levels of anxiety has also recorded the highest frequency in all age groups, Total frequency of mild was (43, 100.0) and moderate was (46, 100.0). The only age group who experienced sever anxiety is (20 - <23) years.

The females have recorded the highest levels of anxiety than the males, where the frequencies of moderate and mild anxieties were higher in females (89.3% and 86.04%, respectively) than in males (10.6% and 13.9%, respectively). Males have recorded about 62.5% of minimal anxiety level, whereas females reported 37.5%.

Table 1. Frequency distribution of gender, age groups, and anxiety severity according to the four stages

		First		Second		Third		Fourth		Total	
		F	%	F	%	F	%	F	%	F	%
Gender	Female	21	25.0	21	25.0	21	25.0	21	25.0	84	100.0
	Male	4	25.0	4	25.0	4	25.0	4	25.0	16	100.0
	Total	25	25.0	25	25.0	25	25.0	25	25.0	100	100.0
Age Groups	≤17- <20	12	92.30	1	7.69	-	-	-	-	13	100.0
	20 - <23	13	22.80	19	33.3	14	24.56	11	19.29	57	100.0
	23 - ≥25	-	-	5	16.6	11	36.6	14	46.6	30	100.0
	Total	25	25.0	25	25.0	25	25.0	25	25.0	100	100.0
Anxiety Severity	Minimal	1	12.5	3	37.5	1	12.5	3	37.5	8	100.0
	Mild	8	18.60	16	37.2	10	23.25	9	20.93	43	100.0
	Moderate	16	24.04	5	10.63	13	27.65	13	27.65	47	100.0
	Sever	-	-	1	50.0	1	50.0	-	-	2	100.0
	Total	25	25.0	25	25.0	25	25.0	25	25.0	100	100.0

Table 2. Frequency distribution of the severity of the anxiety level according to the age groups and gender

		Minimal		Mild		Moderate		Sever	
		F	%	F	%	F	%	F	%
Age Groups	≤17- <20	-	-	5	11.62	8	17.39	-	-
	20 - <23	6	66.6	25	58.13	24	52.17	2	100
	23 - ≥25	3	33.3	13	30.23	14	30.34	-	-
	Total	9	100.0	43	100.0	46	100.0	2	100.0
Gender	Male	5	62.5	6	13.9	5	10.6	-	-
	Female	3	37.5	37	86.04	42	89.3	2	100.0
	Total	8	100.0	43	100.0	47	100.0	2	100.0

Table 3. Relationship between the four stages and their anxiety levels

Stages	Anxiety levels			
	Minimal	Mild	Moderate	Sever
First	171	139	91	99
Second	258	109	65	68
Third	206	122	93	79
Fourth	232	98	92	78
Total	867	468	341	324
$X^2 crit=12.592$ df = 6 $X^2 obs.=39.3$ $P < 0.05$				

Table 3 represents a direct proportional relationship between the anxiety levels and the stages, which indicates that the anxiety severity increases with the progressing academic stages.

Discussion

This study aimed to evaluate the anxiety level among nursing students of Kirkuk University, Iraq, at the commencement of their new academic year. Moreover, it compared the anxiety level in four stages with an aim to study the cross-cultural and gender impact on anxiety for both first and fourth stages of the academic years. The results of the present study are in accordance with those of Sharif and Masoumi, who recorded low anxiety levels in first and fourth stages (14); this could be because the first stage students are more excited about studying in the university and are unaware of the challenges lying in the future, whereas the fourth stage students are less worried as they have already completed three stages and they look forward for better job opportunities after their graduation.

The high anxiety levels recorded at second and third stage are in accordance with the results of Papazisis et al., revealing that anxiety scores tend to increase in the second and third year (13). These results are contradictory to those of Janzen, who studied about anxiety among students from College of Sciences and Faculty of Arts in Babil, and found that the anxiety level increases in the third and fourth stages (23); whereas, Suhail found that the prevalence of anxiety was higher in first and second stages of students (24). This difference was because nursing students need not worry about employment after graduation, because in Iraq, the Ministry of Health directly employs their nurses after their graduation.

The severe anxiety level results of this study for the age group of 20–23 years are contradictory to that of Balogla, who stated that older students experience higher anxiety levels (25); however, the results are in accordance with those of Al Zaghabi, who studied about anxiety level in Jordan University and reported that younger students have higher anxiety levels (26). Another study by Tartakovsky revealed that 75% of

college students experience their first episode of anxiety by 22 years of age (27), whereas a study by Inam did not reveal any significant differences between the age and anxiety levels (28) but Baloglu reported a negative correlation between the age and anxiety levels (10). The previous results suggested that the second and the third stages have reported higher anxiety levels, and that this age group mostly represents the students of these two stages.

The high levels of females anxiety agrees with American College Health Association Survey (2008) which stated that 45% of females and 36% of males reveal anxiety (29); this result is in accordance with Ghaderi et al. (30), Faqe et al. (31), Inam (28), and Suhail (24), whereas both Balogla as well as Ali and Shrit found that there is no significant difference between males and females regarding the anxiety level among college students (25 , 32). The result is contradictory with those of Alidoost et al. (33), Jebreil et al. (34), and Alzaghabi, because they stated that males have recorded highest anxiety levels than females (26). The females' high anxiety level disorders are because females are significantly more inclined toward negative emotions, and there are also biological and physiological reasons that make females more prone to anxiety.

The anxiety severity, which increases with progression of the studying stages, is in accordance with results of Deary et al. (35), who found that nursing students' stress and anxiety increased over time in the nursing program and highest levels were reported in the final year of the course. This result disagrees with that of Wedgeworth (36), who claims that anxiety did not increase among the nursing students over time spent in the program. Increasing anxiety levels with the progress of studying is because of the difficulty of studying program with its progress and success was to be harder with stages progress, so its leading to higher levels of anxiety among students.

Conclusions

A new academic year of studies was considered to be stressful and induced anxiety among the nursing students. Based on the similarities with the previous studies, the researchers found that nursing students

suffer to some levels of studying anxiety, different levels of anxiety have been reported, the second and third stage, the female students, and the age group (20 - <23) years, all have reported higher levels of anxiety compared to others. Cultural and environmental circumstances have a direct impact on anxiety. Political issues, security troubles, economic crises, and conflicts among denominations in Kirkuk city and Iraq directly cause anxiety among the students. This result is similar to the neighboring countries, where Turkish students scored second highest levels of anxiety (10) and Iranian students scored high levels of anxiety as well (12),

because these countries share similar political and economic crises, and as they are neighbors, they have an impact on each other.

Recommendations

Based on the previous results, further studies are warranted in Kirkuk and other cities to explore nursing students' anxiety levels and also to help them deal with such situations. Using the Arabic or Kurdish versions of the questionnaire is necessary for more reliability of the study.

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