

# ASSESSMENT OF ANXIETY AMONG NURSING STUDENTS AT KOYA TECHNICAL INSTITUTE IN ERBIL

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## ABSTRACT

### *Background*

Anxiety is a major obstacle to learning in the clinical setting. While a moderate level of anxiety may be needed for learning, a high level of anxiety results in decreased learning. Emerging data indicate that nursing students are possibly more anxious than other students.

### *Objectives*

The aim of this study was to assess the anxiety levels among nursing students the Koya Technical Institute at Erbil polytechnic University.

### *Methods*

A quantitative descriptive study was conducted on 194 students selected for the Koya Technical Institute at Erbil polytechnic University in Erbil-Iraq. A non-probability purposive sample was selected. A questionnaire was designed for the purpose of the study, it contained of two parts; Part one consisted of socio-demographic characteristics such as age, gender, marital status, income, religion, nation and residential area of the students and part two consisted of a Zung Self-Rating Anxiety Scale which used to measure the severity of anxiety. Data were collected through interview with students. Chi-square test and Mann-Whitney U-test were used for data analysis.

### *Results*

The mean age ( $\pm$ SD) was 20.25 ( $\pm$  1.98) years. The majority (59.3 %) of the samples were male, single (92.8%), Kurdish (98.5%), Muslim (99.5%), had fair income (58.2%), and most of them from rural areas (61.9%). The majority of the study sample (77.3%) had normal anxiety, while 22.2% had mild to moderate anxiety level and only 0.5% were severe with anxiety level. In general, there was no significant association between level of anxiety and their socio-demographic characteristics except gender having a significantly higher  $P = 0.013$ .

### *Conclusion*

Nursing students had mild to moderate anxiety levels, but still need better awareness, advice and management of the affected students. Future research is required to affirm these determinations.

**Keywords:** *Anxiety, Nursing Students, Koya Technical Institute-Erbil Polytechnic University.*

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## INTRODUCTION

Anxiety is a major obstacle to learning in the clinical setting. While a moderate level of anxiety is needed for learning, a high level of anxiety results in decreased learning outcome<sup>(1)</sup>. Emerging data indicate that nursing students are possibly more anxious than other students<sup>(2)</sup>.

Data clearly suggest that male nursing students experience a high level of anxiety in nursing school; fewer nurses would dispute the notion that nursing is a stressful occupation. Most nurses work in hospitals, which for the most part are environments conducive to stress. Some student nurses experience higher levels of stress during clinical learning experiences as compared to learning during classroom or lab experiences<sup>(3)</sup>. Studies have suggested that nursing students also suffer from moderate stress, due in part to a lack of professional knowledge and skills. More than 10% of nursing college students experience moderate to severe anxiety<sup>(4)</sup>.

Moderate to severe levels of anxiety can interfere with a student's ability to process thoughts and ultimately may impede the ability to establish a therapeutic relationship<sup>(5)</sup>. For these students, anxiety and stress levels may render learning difficult, as high levels of stress and anxiety present substantial effect over attention, with the possibility of leading to errors, lack of concentration and oscillation of attention levels. Besides, stress influences acquisition, manipulation and consolidation of the received information. Academic anxiety is an important educational problem that affects millions of students in colleges and schools over the world each year<sup>(6)</sup>.

The study done by Mohebi (2013) on students of Qom University of Medical Sciences in Iran revealed that the mean  $\pm$  standard deviation of the obtained grades from the questionnaires was  $13.65 \pm 6.06$  which suggested that 11.9% students (38 individuals) had severe test anxiety, 40.3% (129 individuals) suffered from moderate test anxiety and 47.8% (153 individuals) from low levels of test anxiety. In fact, 52.5% of the participants suffered from a notable level of test anxiety<sup>(7)</sup>.

Also the study done among Students of a Medical College in Saudi Arabia found the overall prevalence of anxiety and depression in females were 66.6% and males 44.4% (p-value 0.01). In the 1<sup>st</sup> year the prevalence in females was 89.7% and males 60% (P-Value = 0.006)<sup>(8)</sup>. Therefore, this study was conducted to assess the

level of anxiety among nursing students and find out the association between demographic characteristics of the studied students and their anxiety levels.

## METHODS

This quantitative descriptive study was conducted between February 3<sup>rd</sup>, 2016 and March 17<sup>th</sup>, 2016 on 194 students in Koya Technical Institute at Erbil polytechnic University in Koya city of Kurdistan Region-Iraq. A non-probability purposive sample was selected. The sample was selected according to the following inclusion criteria: First and second academic year nursing students in koya institute, students should answer verbally, both genders. Exclusion criteria: None verbally and anybody refuse participation. Data were collected by same researcher using interview technique by Kurdish language, each student's interview lasted 20 minutes, data was collected during 30 days, inside the koya institute and privacy was considered.

A questionnaire format was developed for purpose of data collection; It consisted of two parts; Part one consisted of socio-demographic characteristics such as age, gender, marital status, income (sufficient, fair and insufficient), religion, nation and residential area of the students, and part two consisted of a Zung Self-Rating Anxiety Scale which used to measure the severity of anxiety, including 20 questions and each question has 4 responses that are ranked from 1 to 4 and the client selects one response that is more suitable with his emotional state, level of anxiety according to this scale is determined as following: 20-44 normal, 45-59 Mild to moderate, 60-74 severe and 75-80 Extreme anxiety level<sup>(9)</sup>.

The ethical approvals for conducting this study and was obtained from ethical committee in College of Nursing / Hawler Medical University. Before interview with students the purpose of the study was explained and verbal consent was taken. The students informed that they have right for withdrawal from the study at any time. In order to analysis the results of the study data were entered in SPSS (version 22) frequency, percentage, Chi-square test and Mann-Whitney U-test test was used for interpretation of data.

## RESULTS

Table 1 shows that the majority of the study participants (76.3 %) were in the age group 18-22 years old. The mean age and SD of the participants was  $20.25 \pm 1.98$ . Most of the study participants were male (59.3 %), single (92.8%), Kurdish (98.5%), Muslim (99.5%), had income was fair (58.2%), and most of them from rural areas (61.9%).

Table 2 shows the occurrence of anxiety among students as estimated on Zung Self-Rating Anxiety Scale reveals that, 77.3% had normal anxiety, while 22.2% of them was mild to moderate anxiety level and only 0.5% was severe anxiety level.

Table 3 demonstrates the association between the levels of anxiety with socio-demographic characteristics of students. In general, there was no significant association between the level of anxiety and their socio-demographic characteristics except gender having a significantly higher ( $P = 0.013$ ).

Table 4 shows that there is statistically significant differences ( $P$ -value=0.045) between the academic year and levels of anxiety of the students.

**Table 1. Socio-demographic characteristics of the samples.**

Socio-demographic data		*N= 194	
		No.	(%)
<b>Age group (years)</b>	18-21	148	(76.3)
	22-25	46	(23.7)
<b>Mean <math>\pm</math> SD =20.25 <math>\pm</math> 1.98.</b>			
<b>Gender</b>	Male	115	(59.3)
	Female	79	(40.7)
<b>Marital status</b>	Single	180	(92.8)
	Married	14	(7.2)
<b>Nation</b>	Kurdish	91	(98.5)
	Arabic	3	(1.5)
<b>Religion</b>	Muslim	193	(99.5)
	Christian	1	(0.5)
<b>Income</b>	Sufficient	74	(38.1)
	Fair	113	(58.2)
	Insufficient	7	(3.7)
<b>Residential area</b>	Urban	74	(38.1)
	Rural	120	(61.9)

\* Number of Participants

**Table 2 . Severity levels of anxiety among students.**

Level of anxiety of the study samples	Number of Participants=194	
	No.	(%)
<b>Normal anxiety (no anxiety)</b>	150	77.3
<b>Mild to moderate anxiety level</b>	43	22.2
<b>Severe anxiety level</b>	1	0.5
<b>Total</b>	194	100

**Table 3. Association between socio-demographic characteristics of the students and severity levels of anxiety.**

Levels of anxiety of students		Number of Participants = 194				P-value
		Normal anxiety	Mild to moderate anxiety	Severe anxiety	Total	
Socio-demographic		No.	No.	No.		
<b>Age group (year)</b>	18-21	119	28	1	148	0.132
	22-25	31	15	0	46	
<b>Gender</b>	Male	97	18	0	115	0.013
	Female	53	25	1	79	
<b>Marital status</b>	Single	142	37	1	180	0.151
	Married	8	6	0	14	
<b>Income</b>	good	55	18	1	74	0.686
	fair	90	23	0	113	
	bad	5	2	0	7	
<b>Residential area</b>	Urban	55	18	1	74	0.366
	Rural	95	25	0	120	
<b>Religion</b>	Muslim	149	43	1	193	0.863
	Christiane	1	0	0	1	
<b>Nation</b>	Kurdish	149	41	1	191	0.174
	Arabic	1	2	0	3	

**Table 4. Comparison between academic year and severity levels of anxiety of the students.**

Academics year	First academic year	Second Academic year	P-value of Mann-Whitney U-test
	No.	No.	
<b>Normal</b>	69	81	0.045
<b>Mild to moderate anxiety level</b>	25	18	
<b>Severe anxiety level</b>	0	1	

## DISCUSSION

The findings of present study indicate that majority of the studied sample were in the age group 18-22 years old, most of them were single. This result supported by the study which was done by Chen Yu. (2013)<sup>(10)</sup>. Most of them were male. The result of the current study is congruent with the results from previous studies done by Laila M. Akhu-Zaheya and Wejdan Khater (2013)<sup>(11)</sup>. The present study showed that 22.7 % of students had symptoms of anxiety, so this result agree with

the study done by Shawaz , *et al.* (2015) showed that 22.9% of students had symptoms of anxiety<sup>(13, 14, 15)</sup>. Our explanation for these present study results were suddenly came of students from school environment to institutes or universities environment could might cause an anxiety, since this educational system has huge differences: the student will face new methods of teaching, academic requirements and even new relations among students themselves. In Kurdistan/Iraq, most schools are unisex so students' co-education will have new types of relations with the opposite

sex. Due to these changes, students can potentially experience different types of anxiety that can affect their mental and social health and their academic achievement. There were non-significant associations between severity levels of anxiety of students with their socio-demographic characteristics except gender. The study results agree with the study done by Shireen Hashmat, *et al.*, (2008) in Pakistan<sup>(12)</sup>. On the other hand the result of preset study agrees with the study done by Inam B. (2007)<sup>8</sup>. While anxiety level in female was more than male, the current study consisted with the study done by Shawaz Iqbal, *et al.* (2015)<sup>(13)</sup>.

There is statistically significant differences (P-value=0.045) between the academic year and severity levels of anxiety of the students. These findings generally correspond with findings of a study conducted by Ahmad and Lama (2012)<sup>(16)</sup>.

In conclusion, students experienced a mild to moderate anxiety levels. Females suffered from higher anxiety than males, and generally no significant relationship were founded except from the gender and academic years with the levels of anxiety. Future studies should use larger sample size, qualitative measurement of anxiety levels and comparison of group of students with higher and lower anxiety levels for contributory factors to validate the results.

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