

PREOPERATIVE ANXIETY AMONG ADULT PATIENTS UNDERGOING ELECTIVE SURGERY AT RANYA GENERAL HOSPITAL /KURDISTAN-IRAQ



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ABSTRACT

Background

Background: Surgical operations are among the factors that cause anxiety. Therefore, assessment of preoperative anxiety for scheduled surgical operations is necessary because it enhances surgical outcomes and patient's satisfaction.

Objectives

To find out the prevalence of preoperative anxiety and its association with socio-demographic characteristics of the study sample who undergoing elective surgery.

Patients and methods

One hundred four patients who underwent elective surgery at Ranya general hospital recruited to present a descriptive study through convenience sample technic. The data collected by a direct interview and through the questionnaire included patient's socio-demographic characteristics and the state and trait anxiety inventory measurement scale (Form Y-1) was used to assess preoperative anxiety. The patients' verbal consent was obtained and the study approved by the ethical committee at the College of the Medicine/ University of Sulaimani. The data were analyzed by descriptive and inferential statistics with the Statistical Package for the Social Sciences version (24.0).

Results

The age of more than half (52.9%) was <40 years, the majority were female (71%), married (82%), who reported barely sufficient financially was (65.4%) and more than half were low educated. The prevalence of preoperative anxiety was high (59.6%), preoperative anxiety significantly associated with participants' age, gender, marital status and levels of education, $p < 0.05$.

Conclusion

In the present study the prevalence of preoperative anxiety was high (more than half). Young, female, unmarried and less-educated found to be statistically significant for preoperative anxiety. Psychological preparation and providing the proper information regarding the operation procedure may help in reducing preoperative anxiety.

Keywords: *Anxiety, Elective surgery, General Hospital.*

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INTRODUCTION

Patients admitted to the hospital for surgery usually experience a certain level of anxiety; anxiety, depression, and fear of pain are reported to be frequently observed in patients undergoing elective surgery⁽¹⁾ Among these, the prevalence of preoperative anxiety is ranging from 11% to 80% in adults. It is of particular importance as a factor in elevating perioperative morbidity and postoperative complication⁽²⁾.

Preoperative anxiety is a great challenging problem for nurses in the preoperative care of patients. A low level of anxiety is common and expected as a reaction to a potentially life-threatening situation, especially for a patient's first surgical experience⁽³⁾. However, a higher level of preoperative anxiety may result in fear of complication, fear from death, fear of the unknown, fear from physical disability, financial loss, concern about family, post-operative pain, change of environment, the result of the operation, harm from doctor/nurse mistake, waiting for the operation, and awareness during surgery⁽⁴⁾.

The degree to which a patient manifests anxiety before surgery depends on many factors such as include age, gender, education, and extent of the proposed surgery, previous surgical experience, and personal susceptibility to stressful situations⁽⁵⁾. Many recent studies have investigated the relationship between preoperative anxiety and morbidity/mortality rates. These studies indicated that preoperative anxiety is correlated to postoperative morbidity and mortality⁽³⁻⁵⁾.

The main objective of this study is to find out preoperative anxiety levels and determine the association between preoperative anxiety and patients' socio-demographic characteristics in a sample of the Kurdish population scheduled for elective surgery and admitted to Ranya general hospital - Kurdistan Region - Iraq.

MATERIALS AND METHODS

A quantitative, descriptive study was carried out from January 3 to December 28, 2019. Participants the study recruited through a convenience sample technique, 104 patients who scheduled for elective surgery and admitted to the surgical ward at Ranya general hospital were selected according to study criteria; both genders, 18 years old or older; scheduled for elective surgery; able to communicate in Kurdish; and willing to participate in the study. The study was approved by the ethical committee at the College of Medicine-

University of Sulaimani. Verbal informed consent was obtained from the patients as well.

One hundred-four patients who scheduled for elective surgery recruited to the current study by using non-probability, a convenience sample technique. The data were collected through the direct interview by a questionnaire that includes participants' socio-demographic characteristics in addition to state-trait anxiety inventory (STAI Form Y-1), which is a valid and reliable questionnaire to assess situational anxiety such as preoperative anxiety⁽⁵⁾.

The level of anxiety assessed with the state-trait anxiety inventory scale (STAI). The STAI was suitable for individuals who are greater than 18 years old. The STAI-Y Form is the definitive instrument for measuring anxiety in adults. It differentiates between the temporary (situational) condition of "state anxiety" (s-STAI) and the more general and long-standing quality of "trait anxiety" (t-STAI). The STAI has 40 questions with a range of four possible responses to each of⁽⁵⁾.

The State Anxiety Scale (s-STAI) was used which consists of 20 statements that evaluate how the respondent feels "right now, at this moment". The Scores for the (s-STAI) can vary from a minimum of 20 to a maximum of 80. The sum of the scores on all items constitutes the individual's score. The participants who had a score of (> 44) with s-STAI considered to have preoperative anxiety and those who scored (\leq 44) as has no preoperative anxiety⁽⁵⁾.

Data analysis was performed by using SPSS for Windows, version 24 (SPSS Inc., Chicago, IL, USA). Descriptive statistical, frequency and percentage were used to identify participants' characteristics and levels of preoperative anxiety. Interferential statistic (Chi-Square) was used to find out the association between preoperative anxiety and participant characteristics. P-value considered significant at a level of \leq 0.05.

RESULTS

A total of 104 patients scheduled for elective surgery participated in the present study the age of more than half (52.9%) was less than 40 years, the majority (71.2%) were female, married and still live with their spouse (82.7%). almost one-third (32.1%) were illiterate; a similar proportion (30.8%) was graduated from primary school, the remaining either graduated

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from secondary school (26.9%) or institute and college (9.6%). Finally, nearly two-thirds (65.4%) reported barely-sufficient financially.

As illustrated in Figure 1, the proportion of patient with preoperative anxiety was (59.6%) and (40.6%) had low no preoperative anxiety. The mean score of s-STAI was (41.2± 6.23).

The proportion of preoperative anxiety was significantly higher among patients aged less than 40 years old (87.3%) when compared to other age groups; 40-59 and 60 years and older, (40.6%) and (5.9%) respectively. Furthermore, the incidence of preoperative anxiety was different between females and males, (66.2%) and (43.3%) respectively, the difference was significant

statistically. As for marital status, the proportion of anxiety was (53.3%) among married patients, while it elevated to (88.9%) among unmarried and p-value less than 0.01.

Participants' educational level was other independent variables associated with preoperative anxiety, (30.0%) of graduated from an institute or university showed to have preoperative anxiety, while the percentage increased to (65.6%) in primary and (64.3%) among secondary school graduated. Finally, the proportion of preoperative anxiety slightly higher (62.5%) among participants with sufficient income, whereas, the difference was not significant statistically, as shown in the Table 2.

Table 1. Distribution of participants' socio-demographic characteristics.

Socio-demographic characteristics		Frequency	Percentage
Age	< 40 Years	55	52.9
	40-59 Years	32	30.8
	≥ 60 Years	17	16.3
Gender	Female	74	71.2
	Male	30	28.8
Marital Status	Married	86	82.7
	Unmarried	18	17.3
Educational Level	Illiterate	34	32.7
	Primary school Graduated	32	30.8
	Secondary school Graduated	28	26.9
	Institute/College	10	9.6
Financial Status	Sufficient	16	15.4
	Barely sufficient	68	65.4
	Insufficient	20	19.2
Total		104	100

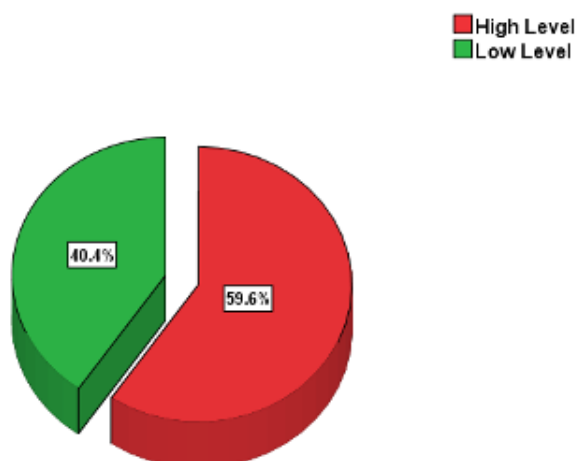


Figure 1. The levels of preoperative anxiety.

Table 2. Association between patients' socio-demographic characteristic and incidence of preoperative anxiety

Characteristics	Preoperative Anxiety			
	Yes (s-STAI > 44)		No (s-STAI ≤ 44)	
	F	%	F	%
Age Groups				
< 40 years	48	87.3%	7	12.7%
40-59 years	13	40.6%	19	59.4%
≥ 60 years	1	5.9%	16	94.1%
Chi-Square	42.65		p: 0.0001	
Gender				
Female	49	66.2%	25	33.8
Male	13	43.3%	17	56.7%
Chi-Square	4.64		p: 0.031	
Marital Status				
Married	46	53.5%	40	46.5%
Unmarried	16	88.9%	2	11.1%
Chi-Square	7.75		p: 0.005	
Education Levels				
Illiterate	20	58.8%	14	41.2%
Primary school Graduated	21	65.6%	11	34.4%
Secondary school Graduated	18	64.3%	10	35.7%
Institute/College	3	30.0%	7	70.0%
Chi-Square	4.37		p: 0.048	
Financial Status				
Insufficient	11	55.5%	9	44.5%
Barely sufficient	41	60.3%	27	39.7%
Sufficient	10	62.5%	6	47.5%
Chi-Square	1.11		p: 0.57	
Total	62	59.6%	42	40.4%

DISCUSSION

The main aim of this descriptive study was to identify the incidence of preoperative anxiety among patients undergoing elective surgery. More than half of the participants were young (less than 40 years old), the majority were female, more than three quarters were married, the financial status of almost two-third was barely sufficient and more than half were low educated.

The present study found that 59.3% of the participants who were scheduled for elective surgery experienced significant preoperative anxiety as suggested by an s-STAI score of above 44, the average mean was (41.2 ± 7.2). The finding in the current study was similar to the results of a recent study conducted in northwest Ethiopia, the prevalence of preoperative anxiety was 59.6% ⁽²⁾, and in agreement with Kuzminskaitė *et al.*, study's finding, the proportion of preoperative was 57.7% ⁽³⁾. Furthermore, overall, 61% patients had a significant level of preoperative anxiety in Ethiopia ⁽⁴⁾.

The recent regional (Iranian) study investigated the level of preoperative anxiety among patients waiting for surgery and reported preoperative anxiety as moderate. The mean score for state anxiety was (40.2 ± 11.2) ⁽⁶⁾. Another Turkish study reported the level of preoperative anxiety as moderate to severe, the state anxiety score was (38.0±9) ⁽¹⁾. Similarly, a study conducted in Saudi Arabia reported that overall preoperative anxiety was 55% ⁽⁷⁾. Almalki *et al.*, ⁽⁸⁾ concluded that the patients who underwent elective surgery had high preoperative anxiety.

On the other hand, the finding of this study on the prevalence of preoperative anxiety was lower than a study conducted in Pakistan ⁽⁹⁾62% , 76.7% in Sri Lanka ⁽¹⁰⁾. Tunisia 67.5% ⁽¹¹⁾. And it was higher than Nigeria (51.0%) ⁽¹²⁾, Ethiopia (47.0%) ⁽⁵⁾, Australia (45.3%) ⁽¹³⁾.

The reason for the above difference might be due to the patient's access to information regarding their surgery compared to our study area. The variation of the current study can be explained by the inclusion of different age, levels of education, and culture of participants and the use of different assessment tools in those studies.

The degree of anxiety that the patients manifested was affected by many factors such as the patient's age, gender, marital status and educational level. Some groups of patients, for example, younger patients, females, unmarried and low educated experience have an increased level of preoperative anxiety.

Probably, sometimes inadequate information obtained by not literate people from different sources, like television, the internet, or neighbours, could lead to misinterpretation and misunderstanding of medical information. This could harm patients by increasing their anxiety. However, according to the present study results, we believe that education helps in preparing the patient and reducing anxiety preoperatively.

The finding of the present study is in line with previous studies; Almalki *et al.*, ⁽⁸⁾ reported that the younger age, female gender, and those who had no family support showed a significantly higher level of preoperative anxiety. In Turkish study ⁽¹⁾ age and gender were found to be significantly correlated with preoperative state anxiety score. Being young and female caused a significantly higher preoperative state anxiety score.

In conclusion, the prevalence of anxiety is high among adult Kurdish patients scheduled for elective surgery at Ranya. An unmarried, young female who is low educated were more anxious than the elderly, males, married and highly educated. Preoperative nursing education (counselling provided by nurses) could reduce anxiety among adult patients waiting for elective surgery.

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