

Assessment Of Pre-Operative Anxiety Among Patients In Selected Hospitals Of Rupandehi, Nepal

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Abstract

Introduction: The prevalence of pre-operative anxiety among patients undergoing various surgeries is as high as 60% to 90%. The pre-operative anxiety have serious outcomes and can increase the risk of post-operative complications like pain, prolonged recovery, and longer hospitalization. Pre-operative anxiety may be transient or chronic and can lead to aggressive reactions and undue stress as well.

Material And Method: A descriptive study was designed to assess the level and contributing factors to anxiety among preoperative patients. Non-probability purposive sampling technique was used to select the patients from Devdaha Medical College and Research Institute, Bhaluhi and Mercy City Hospital, Butwal, Rupandehi district. Semi-structured interview schedule and Beck Anxiety Inventory Scale (BAI) were used to collect data. The collected data were analyzed by using descriptive and inferential statistics with Statistical Package for Social Sciences (SPSS) software version 16.

Results: Among 150 respondents 57.3%, 26.6%, and 16% respondents had severe, moderate and low anxiety levels respectively. The contributing factors for pre-operative anxiety were respondents having no history of previous surgery (20.7%), less number of days of hospital admission (44% and 44%), had major surgery(48.7%). Respondents felt fear about the pain due to surgery in 91.3% cases, death in 36% and blood transfusion in 13.3% cases. 62.7% respondents had no any doubt regarding competency of health personnel.

Conclusion: Based on the study findings, there are varying levels of anxieties among preoperative patients. It is recommended to surgeon and other health personnel that information needs to be provided related to surgery before surgery to reduce pre-operative anxiety.

Keywords: Pre-Operative Anxiety, Elective Surgery, Nepal

INTRODUCTION

Most patients awaiting elective surgery experience anxiety. Pre-operative anxiety is a vague, uneasy feeling, the source of which is often nonspecific and unknown to the individual caused as a consequence of sympathetic, parasympathetic and endocrine stimulation before any operative procedure. The prevalence of pre-operative anxiety is around 32% in patients awaiting general surgery.¹ Globally reported incidence of pre-operative anxiety ranges from 60% to 92% in surgical

patients. The degree of patient's anxiety depends on factors like age, gender, type and extent of the proposed surgery, previous surgical experience, and personal susceptibility to stressful situations.² The contributing factors identified for pre-operative anxiety are fear of postoperative pain and nausea, fear of paralysis due to the anesthesia, and fear of personal information being revealed while anesthetized.³ Lack of adequate and timely information to patients during the pre-anesthetic consultation increases risk of anxiety.⁴

A study done in Nigeria showed that 51% patient undergoing surgery had pre-operative anxiety. Fear of complications and result of operation were the most common factors responsible. 10% of patients were anxious about being on nil per oral, getting stuck with needle and harm due to mistake of health professionals.⁵ High pre-operative anxiety is related to an altered neuro-endocrinal response which might be deleterious in the post-operative period. Physiological responses includes tachycardia, hypertension, elevated temperature, sweating, nausea and psychological responses. This may lead to changes in behavior such as increased tension, apprehension, nervousness and aggression.⁶ Another cross-sectional study conducted in a tertiary hospital of Riyadh, Saudi Arabia from July to September, 2016 among 400 patients undergoing anesthesia for surgery it was seen that 88% of patients experienced pre-operative anxiety. The top three factors of pre-operative anxiety were fear of post-operative pain, fear of intra-operative awareness and fear of being sleepy postoperatively. Age and gender were predictors of overall fear among pre-operative patients.⁷

We aim to conduct a cross-sectional study to determine pre-operative anxiety and its contributing factors among the patients undergoing elective surgery in general hospitals of Rupandehi district of Nepal.

MATERIAL AND METHOD

A descriptive design was used to assess the level of anxiety and its contributing factors. Non-probability consecutive sampling technique was used to select the patient from Devdaha medical college and Research Institute, Bhaluhi and Mercy City hospital, Butwal, Rupandehi. The researchers reached the ward prior to elective surgery of patients and obtained the written informed consent from those who were willing to participate. Data collection was done from 150 patients on the months of October, 2017 to March, 2018. The questionnaire consisted of three parts:

Part I: Socio-demographic variables

Part II: Beck Anxiety Inventory Scale (BAI): It was created by Aaron T. Beck and other colleagues. It is a 21-question multiple-choice self-report inventory that is used for measuring the severity

of anxiety in children and adults. It consisted of 21 items ranging from very low anxiety= 0-21, moderate anxiety= 22-35, severe anxiety= 36-63. Nepali version of this scale was used.⁸

Part III: Semi-structured questionnaire: This questionnaire collected responses regarding contributing factors to anxiety like history of previous surgery, duration of hospitalization, type of surgery, affordability, family support, type of anesthesia, cooperativeness of health professionals, expectations about pain, doubts about competency of health professionals etc.

Administrative and ethical approval was obtained from the concerned authorities of Devdaha Medical College and Research Institute, and Mercy City Hospital, Butwal, Rupandehi, Nepal prior to data collection. Descriptive and inferential statistical method was used with SPSS version 16 to analyze the data.

RESULT

Table 1: Respondents' Socio-demographic Variables (n=150)

Variables	Frequency	Percentage
Age in years		
17-26	52	34.6%
27-36	36	24.0%
37-46	23	15.3%
47-56	11	7.3
≥57	28	18.6
Sex		
Male	95	63.3%
Female	55	36.7%
Caste		
Pahadi Dalit	8	5.3%
Pahadi Janajati	40	26.7%
Madhesi	51	34.0%
Muslim	10	6.7%
Brahmin/Chhetri	41	27.3%
Occupation		
Business	15	10.0%
Farmer	17	11.3%
Service holder	31	20.6%
Labor	17	11.3%
Housewife	43	28.6%
Others	14	9.3%
Type of Family		
Joint	82	54.7%
Nuclear	68	45.3%

Table 1 shows among 150 respondents 34.6% were in the age group of 17-26 years, 63.3% were male, 34.0% belong to ethnicity of "Madhesi, 28.6% were homemakers by occupation and 54.7% were residing in joint family.

Table 2 : Respondents' Level of Pre-operative Anxiety (n=150)

Level of Anxiety	Frequency	Percentage
Very Low Anxiety	24	16%
Moderate Anxiety	40	26.7%
Severe Anxiety	86	57.3%

Table 2 shows that 57.3%, 26.6%, and 16% respondents had severe anxiety, moderate anxiety and very low anxiety respectively.

Table 3: Respondents' Contributing Factors to Anxiety (n=150)

Variables	Frequency	Percentage
History of Previous Surgery		
Yes	31	20.7%
No	119	79.3%
Hospitalization Day for Surgery		
1 st day	66	44%
2-6 days	66	44%
≥7days	18	12%
Planned for Surgery		
Major	73	48.7%
Minor	77	51.3%
Fracture	40	26.6%
Fulfillment of Basic Needs		
Yes	139	92.7%
No	11	7.3%
Support from Family		
Fully	141	94%
Partially	9	6%
Afford the Cost of Surgery		
Yes	100	66.7%
No	50	33.3%
Duration for Operation		
Informed	39	26%
Not informed	111	74%
Complications of		

Surgery		
Informed	45	30%
Not informed	105	70%
Types of Anesthesia		
Not informed	52	34.7%
General	48	32.0%
Spinal	24	16.0%
Local	26	17.3%
Expected Duration of Hospital Stay		
Informed	84	56%
Not informed	66	44%
Clearly Understand the Information given by the health personnel		
Yes	137	91.3%
No	13	8.7%
Co-operative Health Personnel		
Yes	135	90%
No	15	10%
Fear of Unknown Consequences related to Surgery		
Yes	120	80%
No	30	20%
Fear of Pain due to Surgery		
Yes	137	91.3%
No	13	8.7%
Fear of Death		
Yes	54	36%
No	96	64%
Doubt for Incompetency of Health Personnel		
Yes	56	37.3%
No	94	62.7%
Fear for Blood Transfusion		
Yes	20	13.3%
No	130	86.7%

Table 3 shows that 20.7% of respondents had previous surgery. 48.7% had major surgery and 26.6% had surgery for fracture. 92.7% patients believed they could fulfill their basic needs, 94% had full support from family and 66.7% could afford the cost of surgery. Regarding duration

for operation 74% of patients were not informed. Regarding complications of surgery 70% were not informed. Similarly, 34.7% of patients were not informed about the types of anesthesia, 44% were not informed about expected duration of hospital stay. Regarding information given by the health personnel, 91.3% of patients felt they had clearly understood. 90% respondents felt that the health personnel were cooperative. 91.3% of the patients had fear about pain due to surgery, 36% had fear about death and 13.3% had fear about blood transfusion. Regarding doubt for incompetency of health personnel, 62.7% respondents had no any doubt. Fear of unknown consequences related to surgery were seen among 80% of respondents.

DISCUSSION:

In the current study 57.3%, 26.6%, and 16% respondents had severe anxiety, moderate anxiety and very low anxiety respectively. This finding is in line with the study done by Gangadharan et.al (2014) in Kingdom of Saudi Arabia which showed that among the pre-operative patients, high anxiety, moderate and low anxiety were 60%, 30% and 10% respectively. Female (45%) had higher pre-operative anxiety than male (15%) which was not separately analyzed in our study.⁹ Our study revealed that 94% respondents had full support from family which is not consistent with the study conducted by Almalki et al. (2017) which showed 80.20% of respondents had family support.¹⁰ This could be explained on the basis of Nepalese social-cultural factors where family support plays a vital role. In our study 48.7% had gone through major surgery which is not consistent with the study conducted by Ruhaiyem et al. (2016) in Saudi Arabia which showed 28% of respondents had gone through major surgery and 71% had gone through minor surgery.⁷ This may be the reason for higher levels of pre-operative anxiety in our study.

In our study, 80% of the respondents had fear of unknown consequences related to surgery, 37.3% had doubt for incompetency of health personnel and 36% of respondents had fear of death. This finding is not consistent with the study conducted by Nigussie et al. (2014) in Ethiopia which shows 52.70% of respondents had fear of unknown consequences, 14.5% of respondents had fear of occurrence of problems

due to incompetency of health personnel and 82.7% had fear of death.² In our study, the perceived contributing factors for anxiety by the respondents were about the pain due to surgery in 91.3%, no information about the types of anesthesia in 34.7%, uninformed about the complications of surgery in 70%. This is in line with some of the findings of the study conducted by Mavridou et al. (2017) in which the contributing factors of pre-operative anxiety were postoperative pain (84%) and nausea (60.2%), paralysis due to the anesthesia (33.5%), and revealing personal information while anesthetized (18.8%).³

This is one of the few studies of Nepal conducted to look at the pre-operative anxiety in patients undergoing elective surgery. We also tried to look at the contributing factors for the same. We believe this study will lay a foundation in encouraging other studies with strong methodologies and from different centers. Once if we could analyses the contributing factors for pre-operative anxiety in detail suitable interventions could be designed. However, there are few limitations to our study. The findings from two hospitals cannot be generalized to the whole country. Similarly, the intervention part has not been seen in this study. We also didn't collect what expectations patient had regarding the pre-operative counselling to reduce the anxiety which would have provided insights for lowering anxiety levels.

CONCLUSION:

Based on the study findings, it is concluded that 57.3%, 26.6%, and 16% respondents had severe anxiety, moderate anxiety and very low anxiety respectively. The result of the study emphasis that if patients receive better pre-operative information during the visit with the surgeon and others health personnel and reduce the anxiety and complications after surgery. Further research of multi-centric design are warranted in this area.

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CONFLICT OF INTEREST: None

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