MAFLEKUMEN COMMUNITY HEALTH AND RESEARCH JOURNAL

Advancing Community Health Through Research

Original Article

ANXIETY LEVEL AND COMMON CAUSES: A HOSPITAL BASED CROSS-SECTIONAL STUDY AMONG PREOPERATIVE PATIENTS AT BUEA REGIONAL HOSPITAL

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Article History
Submitted: 20/07/2026
Revisions requested:03/10/2026
Accepted: 28/10/2026
Published: 06/11/2026

ABSTRACT

Background: Preoperative anxiety is a multifaceted phenomenon which significantly impacts patients undergoing surgical procedures. Despite recent advancements in surgical techniques and anesthetic management, the psychological burden associated with anesthesia and surgery remains a significant challenge for healthcare providers.

Objective: The main aim of this study was to determine the level of anxiety and identify the common causes among preoperative patients at the Buea Regional Hospital.

Methods: The hospital-based study was conducted among surgical patients aged 20 years and above at the Buea Regional Hospital. A consecutive sampling technique was employed to select the study participants and a total of 50 participants were included in the final analysis. Socio-demographic and clinical data of the participants were collected using a structured questionnaire. The Anxiety level was measured using the Hospital Anxiety and Depression Scale. Data was computed on MS Excel 2016 and analyzed using the IBM SPSS software version 28.0.

Results: The mean age of study participants was 31.42 years and females predominated the study population. The overall prevalence of preoperative anxiety as revealed by the hospital anxiety scale was 76.0% (n =38, 95% CI:64.2-87.8%). Among participants experiencing preoperative anxiety, 22 (44.0%) experienced severe anxiety, 11 (22.0%) experienced moderate anxiety levels and mild anxiety was experienced by 05 (10.0%) of the study participants. The most common reported reason for preoperative anxiety was fear of surgical related complications (85.0%).

Conclusion: The prevalence of preoperative anxiety was high with an overall prevalence of 76.0%. Most of the patients experiencing anxiety were found to experience severe anxiety. Several causes of anxiety among preoperative patients were identified including the fear of surgical related complications. The study recommends the adoption of appropriate policies and procedures for reducing preoperative anxiety among patients.

Keywords*:* Preoperative Anxiety, Prevalence, Causes, Surgery, Buea Regional Hospital, Cameroon

INTRODUCTION

Preoperative anxiety refers to feelings of apprehension, worry, or fear related to surgery, anesthesia, possible complications, pain, and recovery outcomes. Surgery is a major medical intervention that is often accompanied by psychological stress. For many patients, the surgical process covering the pre-operative, intra-operative, and post-operative phases is associated with fear, uncertainty, and emotional tension [1]. Elevated anxiety levels are associated with increased heart rate and blood pressure, higher anesthetic requirements, increased perception of postoperative pain, delayed wound healing, prolonged hospital stay, and reduced patient satisfaction. These effects demonstrate that anxiety is not merely an emotional reaction but a clinical concern that requires appropriate assessment and management as part of holistic peri-operative care [1].

Globally, preoperative anxiety remains highly prevalent, particularly in low- and middle-income countries. A systematic review and meta-analysis reported that the prevalence of preoperative anxiety in these settings ranges from 40% to over 60%, indicating that a substantial proportion of patients undergoing surgery experience clinically significant anxiety [2]. In Africa, hospital-based studies consistently report high prevalence rates of preoperative anxiety. In Ethiopia, a cross-sectional study among adult surgical patients reported a preoperative anxiety prevalence of 47.6%, with nearly half of the patients experiencing moderate to severe anxiety [3]. Another study conducted in referral hospitals in Northwest Ethiopia found that 47.0% of patients awaiting surgery had significant anxiety symptoms [4]. In South Africa, a study among adults scheduled for elective orthopedic surgery documented that 48.8% of patients experienced clinically significant preoperative anxiety [5].

In Cameroon, studies focused on determining the burden of preoperative anxiety are limited. However, available evidence suggests that anxiety and psychological distress are common among patients awaiting surgery in the Cameroonian setting. A study conducted in a tertiary hospital in Cameroon reported that approximately 54.8% of patients awaiting surgical procedures experienced significant psychological distress, with anxiety being a prominent component [6]. Additionally, a more recent study carried out in a Regional Hospital in Cameroon found that about 44% of patients admitted for surgical care exhibited symptoms of anxiety [7]. These findings indicate that anxiety is a substantial concern among surgical patients in Cameroon, despite being under-recognized in routine clinical practice. Therefore, the current study focused on determining the level of anxiety and identifying the common causes among preoperative patients at Buea Regional Hospital.

MATERIALS AND METHODS

Study Design and Duration

This study was a descriptive cross-sectional hospital-based study. The study was carried out for a period of 8 months that is from December 2025 to June 2026.

Study Area and Setting

The study was conducted at Buea Regional Hospital, a major referral hospital located in the South-West Region of Cameroon. The hospital was selected because it receives a high volume of surgical patients daily, making it an ideal setting to study

preoperative anxiety in the Cameroonian context.

Sampling technique

A consecutive sampling technique was employed to select the study participants selecting all the eligible surgical patients that were available during the study period.

Eligibility Criteria

Adult patients aged 20 years and above were included and patients unable to communicate due to critical illness or language barriers were excluded.

Ethical Considerations

The study was approved by the Ethics Review Board of the Regional Delegation of Public Health Southwest Region of Cameroon (*Approval no:317/CRERSH/SW/C/03/2026)*. All participants consented to their participation in the study.

Data Collection Tools

Data was collected using a structured questionnaire and anxiety levels were measured using the Hospital Anxiety and Depression Scale (HADS), a validated tool widely used in surgical settings. The HADS consists of 14 questions which are divided into two groups; group A assesses anxiety level, while group D assesses depression level. Only group A questions were used as the study was focused on determining anxiety levels. Each question was scored on 03 giving a maximum score of 21 on the scale.

Interpretation of the HADS scores

No anxiety: Score 0–7
Mild anxiety: Score 8-10
Moderate anxiety: Score 11–14
High anxiety: Score 15–21

Data Analysis

Data were entered into Microsoft Excel 2016 and analyzed using SPSS version 28. The HADS scores were used to categorize anxiety. Findings were presented on tables and appropriate charts.

RESULTS

Socio-Demographic and Surgical Characteristics of Study Participants

The ages of the respondents ranged from 20 to 59 years, with a mean (SD) age of 31.42 ± 8.47 years and a median age of 29.00 years. The majority of respondents were aged 18–27 years 22 (44.0%), followed by those aged 28–37 years 16 (32.0%). More than half were female 29 (58.0%), while 21 (42.0%) were male. Most respondents were single 30 (60.0%) and had attained tertiary education 26(52.0%). Regarding occupation, the largest proportion were involved in business activities 17 (34.0%), followed by students 13(26.0%). Most respondents were Christians 41(82.0%). More than half underwent major surgery 28(56.0%), while 22 (44.0%) underwent emergency surgery. Most respondents had not undergone surgery previously 29(58.0%), and the majority reported experiencing anxiety before surgery 32(64.0%). These findings indicate that the study population was predominantly composed of young, single females with tertiary education who mainly underwent major surgical procedures (Table 1).

Table 1: Socio-demographic and Surgical Characteristics of Respondents (N=50)

Variable	Category	Frequency (n)	Percentage (%)
Age group (years)	20–27	22	44.0
	28–37	16	32.0
	38–47	09	18.0
	48+	03	6.0
Sex	Male	21	42.0
	Female	29	58.0
Marital status	Single	30	60.0
	Married	18	36.0
	Divorced	01	2.0
	Widowed	01	2.0
Level of education completed	No formal education	03	6.0
	Primary	04	8.0
	Secondary	17	34.0
	Tertiary	26	52.0
Occupation	Student	13	26.0
	Civil servant	05	10.0
	Business	17	34.0
	Farmer	08	16.0
	Unemployed	05	10.0
	Not mentioned	02	4.0
Religion	Christian	41	82.0
	Muslim	08	16.0
	Traditional	01	2.0
Type of surgery	Minor	22	44.0
	Major	28	56.0
Nature of surgery	Elective	17	34.0
	Emergency	22	44.0
	Urgency	11	22.0

Hospital Anxiety and Depression Scale Response Distribution

The findings on symptoms of anxiety among respondents showed that 17 (34.0%) respondents reported feeling tense or wound up most of the time, while 12 (24.0%) reported not feeling tense at all. Regarding feelings of fear as if something awful was about to happen, 16 (32.0%) respondents experienced this most of the time, whereas 12 (24.0%) did not experience such feelings. Concerning worrying thoughts, more than one-third of respondents 18(36.0%) reported that worrying thoughts went through their minds most of the time, while only 5 (10.0%) reported not experiencing such thoughts at all. Similarly, 14 (28.0%) respondents reported that they could not sit at ease and feel relaxed most of the time, whereas 11 (22.0%) did not experience this feeling. Regarding physical symptoms of anxiety, 15(30.0%) reported experiencing the symptom occasionally or not at all. Furthermore, 19 (38.0%) respondents felt restless as if they had to be on the move a lot of the time, whereas 12 (24.0%) did not feel restless at all. Regarding panic symptoms, the largest proportion of respondents 17(34.0%) experienced sudden feelings of panic occasionally, while 16 (32.0%) experienced them a lot of the time (Table 2).

Table 2: HADS Response Distribution

Feeling	Response				Total n (%)
	Most of the time n (%)	A lot of the time n (%)	Occasionally n (%)	Not at all n (%)	
Tense or wound up	17 (34.0)	08 (16.0)	13 (26.0)	12 (24.0)	50 (100.0)
Frightened and feeling something awful is about to happen	16 (32.0)	13 (26.0)	09 (18.0)	12 (24.0)	50 (100.0)
Worrying thoughts goes through my mind	18 (36.0)	15 (30.0)	12 (24.0)	05 (10.0)	50 (100.0)
Cannot sit at ease and feel relaxed	14 (28.0)	14 (28.0)	11 (22.0)	11 (22.0)	50 (100.0)
Diarrhea like frightened	05 (10.0)	15 (30.0)	15 (30.0)	15 (30.0)	50 (100.0)
Restless	14 (28.0)	19 (38.0)	05 (10.0)	12 (24.0)	50 (100.0)
Sudden panic	09 (18.0)	16 (32.0)	17 (34.0)	08 (16.0)	50 (100.0)

Prevalence and Classification of Anxiety Level among Preoperative patients at Buea Regional Hospital, June 2026

The overall prevalence of preoperative anxiety among the study participants was 76.0% (n=38, 95% CI: 64.2-87.8%). The findings revealed that severe anxiety was the most common anxiety category affecting 22 (44.0%) participants (Figure 1).

Common causes of Preoperative Anxiety among preoperative patients at Buea Regional Hospital, June 2026

The findings on the common causes of perioperative anxiety revealed that the majority of respondents expressed concerns related to surgery and its outcomes (Figure 2).

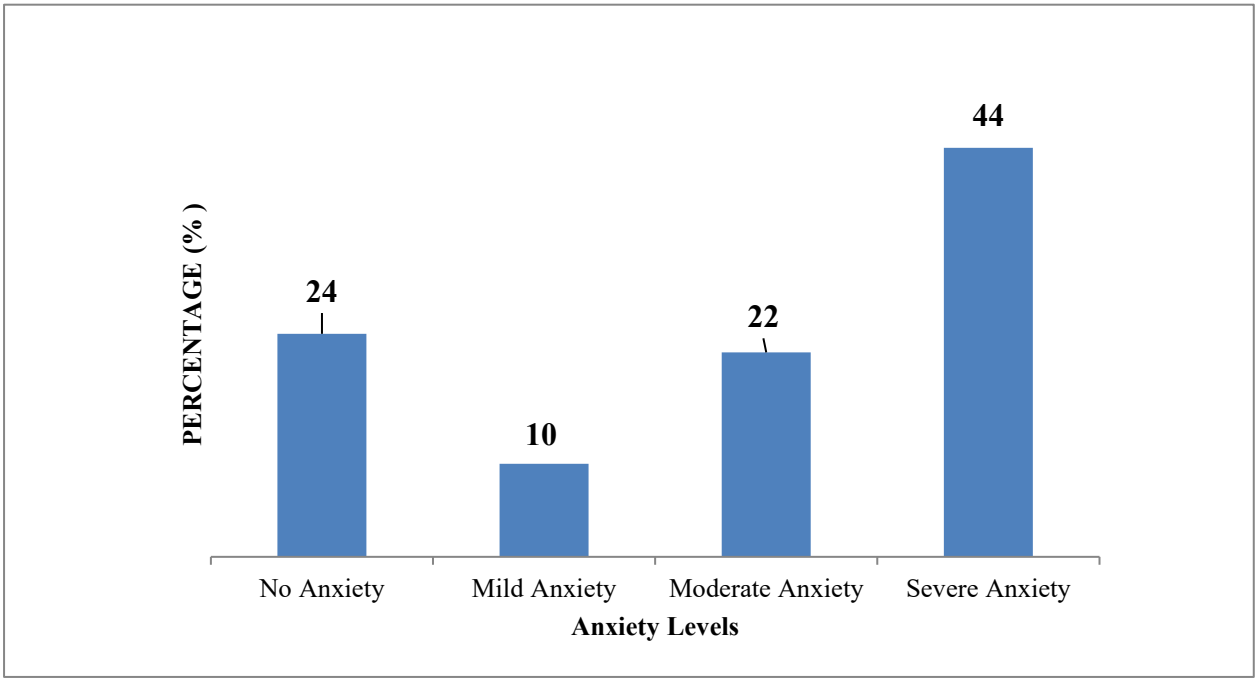


Figure 1: Prevalence and Classification of Anxiety Level among Preoperative patients at Buea Regional Hospital, June 2026

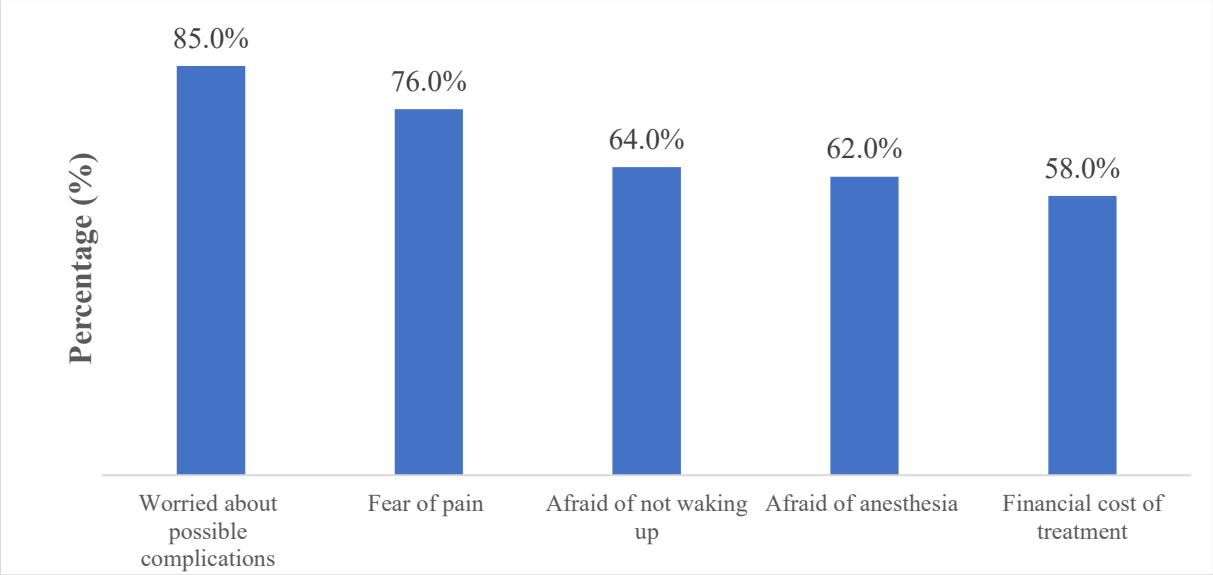


Figure 2: Common causes of Preoperative Anxiety among preoperative patients at Buea Regional Hospital, June 2026

DISCUSSION

The present study revealed that preoperative anxiety was highly prevalent among respondents, with 76.0% of study participants reporting experiencing anxiety before surgery. In terms of severity, severe anxiety was the most common category, accounting for 44.0% of participants, followed by moderate anxiety (22.0%), mild anxiety (10.0%), while 24.0% reported no anxiety. These findings indicate that a considerable proportion of patients experience clinically significant psychological distress during presurgical process.

These findings are consistent with those previous studies which also reported a higher prevalence of preoperative anxiety among surgical patients. A study by Nigussie *et al*. (2014), reported that 68% of surgical patients experienced clinically significant anxiety, mostly at moderate levels [8]. Similarly, Mulugeta *et al*. (2018) found that 65% of patients experienced moderate to high anxiety [4], and Bedaso *et al*. (2019) reported that approximately 60% of patients experienced moderate to severe anxiety [9]. Furthermore, Erkilic *et al*. (2017) observed that 57% of patients had moderate anxiety and 15% had severe anxiety [10]. The higher proportion of severe anxiety observed in the present study may be attributed to inadequate pre-operative counselling, fear of surgical complications, and lack of prior surgical experience among respondents, as more than half (58.0%) had never undergone surgery before. This finding also aligns with Lami *et al*. (2025), who noted that lack of structured pre-

operative education significantly increases anxiety levels among surgical patients [11].

The present study identified multiple psychological, clinical, informational, and environmental factors contributing to peri-operative anxiety. The most commonly reported causes included fear of complications (85.0%), fear of pain (76.0%), and fear of death during surgery (64.0%). These findings are consistent with those of Mulugeta *et al.* (2018), who reported that fear of unknown surgical outcomes and fear of death were major contributors to peri-operative anxiety among approximately 65% of patients [4]. Similarly, Nigussie *et al.* (2014) found that fear of post-operative pain and complications, as well as poor communication from healthcare providers, were major causes of anxiety in 68% of patients [8]. In a similar study, Bedaso *et al.* (2019) also identified fear of anesthesia and loss of control during surgery as key psychological contributors to anxiety [9]. The findings of the present study therefore suggest that inadequate patient education and poor communication between healthcare providers and patients remain major gaps in peri-operative care.

Conclusion

Preoperative anxiety remains a significant burden among surgical patients at the Buea Regional Hospital. The main reasons for anxiety were worried about possible complications, the outcome of the process and fear of experiencing pain during the surgery. The study recommends the adoption of appropriate policies and procedures for reducing preoperative anxiety among surgical patients.

Acknowledgement

The authors are particularly grateful to the administration and workers of Buea Regional Hospital as well as to the study participants and their care givers for the collaboration.

Funding

The current study did not receive any external funding.

Conflict of Interest

Authors declare no competing interest as regards the publication of this work.

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How to cite this article
Meh KK and Acha TM. Anxiety levels and common causes: a hospital based cross sectional study among preoperative patients at Buea Regional Hospital. *Maflekumen Community Health and Research Journal.* 2026;1 (2):45-53