

Effectiveness of Preoperative Counseling to Reduce Anxiety in Patients Undergoing General Anesthesia at Northwest General Hospital

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Abstract

Surgical patients may experience anxiety during the pre-operation period which stimulates stress during and after the operation. Fear of death, surgery, loss of independence, pain after the surgery, isolation from family, the success rate of surgery, and waiting for surgical procedures are the main causes of preoperative anxiety. The low level of information about the issues related to surgery, the nature of the disease, and the side effects after the operation may raise the anxiety level before, during, and after the surgery. Different methods are used for managing pre-operative anxiety such as medications and educational sessions. Due to adverse side effects of medicines, anesthesiologists prefer pre-operative counseling. This research study aimed to examine the effectiveness of preoperative counseling for the patients undergoing anesthesia. The Observational study was performed at the Northwest General Hospital Peshawar from July 2022 to December 2022. Total 196 participants were involved in the study and their heart rate, blood pressure and pulse rate were checked before the counseling session, BAI was used to find the main predictors of anxiety and its effect. Finally, the participants were provided with counseling sessions and their anxiety level was again checked with the vitals (HR, RR, BP). Results concluded that heart rate, blood pressure, and pulse rate were increased in females as compared to males. Before the counseling session, the anxiety level was high and after the counseling session,

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most of the patients felt to be relaxed, pleasant and less tensed.

Keywords: Reduce Anxiety, Patients, Anesthesia, Surgical patients

1 Introduction

A human reaction to the unfamiliar circumstances is known as anxiety. It is also known as nervousness, tension, fear and an unpleasant sense. Surgery is one of the major trauma which can cause nervousness or stress. Surgical patients may experience anxiety during the pre-operation period which stimulate stress during and after the operation. Preoperative anxiety is defined as the anxiety secondary to planned operation, hospitalization and disease. Fear of death, surgery, loss of independence, pain after the surgery, isolation from family, success rate of surgery and to wait for surgical procedures are the main causes of preoperative anxiety. A protective factor which decrease the chances of pre-operative stress or anxiety is age, one-year increase in age reduces the 5% chances of this anxiety. Males are at low risk of anxiety as compared to females, but educated people experience higher levels of anxiety because of being familiar with health-related issues after surgery. Married people experience less level of pre-operative anxiety because of emotional support (Stamenkovic et al, [2018](#)). The level of pre-operative anxiety depends on type of surgery e. g., some patients experience very low level of anxiety for minor operations and this level is increased in case of complicated surgeries like heart surgeries. Similarly, cancer is another major risk factor of higher level of anxiety (Buehrer et al, [2015](#)). The level of pre-operative anxiety is affected by previous psychiatric issues e. g., stress, depression and anxiety. Preoperative anxiety leads to physiological and psychological issues in adults and children by which surgical procedures become difficult to proceed and doctors face difficulties in such cases while handling the patients.

Also, high level of anxiety can interfere the operational procedures and can put the life risks during surgery. Preoperative anxiety, emergence delirium, and maladaptive behaviors are very common among patients and these behaviors are called as maladaptive behavioral responses like enuresis, eating disturbances and sleep among patients suffering from pre-operative anxiety (Rassias et al, [2003](#)). When the anxiety state score increases by ten point, it cause 13% increase in the risk of maladaptive behavior among children after the surgery. This behavior indirectly affects the recovery rate, prolonged hospital stay, and increased amount of postoperative analgesics among patients. Pathologically, maladaptive behavior causes hemodynamic instability by triggering endocrine and autonomic systems. So far, severe preoperative anxiety causes postoperative complications such as pain, vomiting, nausea, and impaired wound healing. There is a inverse relationship between effectiveness of anesthesia, recovery and anxiety (Jhon et al, [2009](#)). This is a matter of concern for ward, ICU, nurses at the recovery unit, surgeons, anesthesiologists and doctors. Preoperative anxiety is known as a major fatality factor during it after the operation. It is also called as financial burden on family member for healthcare system by increasing the amount of analgesic drugs and anesthetics, prolonged hospital stay and long recovery rate (Y.b et al, [2018](#)). For surgical patients, a common problem is stress and anxiety before the procedure which causes different types of physical and emotional issues. Usually, being hospitalization and presence in hospital is a life-threatening and stressful experience for people which cause anxiety and fear (Sharma et al, [2013](#)). A person may experience surgical procedures during the life soak and this procedure has been proved to be very stressful.

Surgery, regardless of type, duration and extent has been known as an anxious experience. A study has reported the prevalence rate of surgery as 11 - 80% among adults (Bansal et al, [2016](#)). Different factors are involved in developing anxiety, most of them increase the it's rate before the operation e. g., the causes of surgery, the nature of the diseases and knowledge about the surgical

procedure (Alhamdoun et al, [2020](#)). The low level of information about the issues related to surgery, nature of disease and the side effects after the operation may raise the anxiety level before, during and after the surgery. Preoperative anxiety is faced by most of the patient's regardless social background, education and status (Syed et al, [2017](#)). Moreover, when patients do not complete the sleep length before the surgery, the level of anxiety is increased. Preoperative anxiety may cause changings in breathing pattern, increase the blood pressure and heart rate. It may increase the pain after the surgery and cause delayed recovery. It is one of the main causes of cancellation of elective operations. Preoperative anxiety has an important role in reducing the correct care activities, exercise, diet and increased rate of heart attack (Alanzi et al, [2014](#)). Anxiety has the potential to affect the postoperative recovery, period, process of anesthesia, and preoperative visit and all of these are the aspects of anesthesia. Sometimes, patients experience increased postoperative bleeding due to tachycardia and increased blood pressure, this condition increased the need of intraoperative anesthetic drugs and dose of postoperative analgesics. (Marinelli et al, [2020](#)). Hospital environment, bleeding, fear of anesthesia, financial loss, pain and death are the main causes of high level of pre-operative anxiety. Today, 20 million people in US are suffering from gallstones and 93% of cholecystectomy surgeries are performed by laparoscopic method. Regardless of postoperative complications, pain and small incisions of this surgery, laparoscopic procedure for any other operation can increase the pre-operative anxiety. The surgical room is an unfamiliar place for most of the people, with it efficient and high technological setup. This environment seemed to be frightening for patients and they may be uncomfortable in such environment. Some patients may be anxious due to unfamiliar relationship with surgical team. The patients encounter pre, intra- and post-operative dialogue model which consists of theatre-room nurses, surgeon and anesthetists.

The main purpose of this model is to provide information about the surgery by creating a place for dialogue, and to a create a sense of community. This perioperative dialogue model provide opportunity to exchange information between the team and patient and to make sure that body is in safe hands during the operation (Impellizzeri et al, [2017](#)). Additionally, within the perioperative dialogue the expression of care involved the staff promising to allow the patient to be herself/himself, guiding the patient through patient and promising safety about welfare. But, they still face vulnerability in the operation room. Patients sometimes awake during the surgery and feel loss of body control, decision-making and helplessness which increase the level of anxiety. Patients experiences in the surgical room includes being dependent on the staff make them anxious. Despite of their ability to behave autonomously, different ways of supporting the patients must be developed to control the complications for them (Ryu et al, [2017](#)).

Although pre-operative anxiety is considered as a normal reaction but it is a pervasive issue with far reaching health problems (Sriramka et al, [2021](#)). Previous studies have been found that it affect the recovery and well-being of patients in a negative way (Vadhanan et al, [2017](#)). It was found that preoperative anxiety is a prediction to postoperative complications. (Beydon et al, [2015](#)) Another study suggested that pre-operative counseling is very important to reduce the level of anxiety and stress (Xu et al, [2016](#)). The most effective ways to reduce the pre-operative anxiety are music therapy and perioperative education. Preoperative counseling about the role of patient mental relaxation in the recovery period and hospital stay has been found to be very effective in reducing the stag at hospital and better compliance with care plan after the surgery including early mobilization. A study has shown that pre-operative counseling be fire the abdominal surgery of a patient played a very well role in early mobilization and reduction in postoperative pulmonary complications. Preoperative information about the operational procedures is commonly provided at every setup, but very less information is provided about postoperative complications, so it is very important to provide proper information about pre and post-operative effect which help the patients to feel better and relaxed (Kumar et al, [2023](#)). There is a need of treatment strategies for

pre-operative anxiety because of its adverse effects and high prevalence rate. Two types of interventions (non-pharmacological and pharmacological) are known till now. Pharmacological approaches include antianxiety drugs and sedatives. Most common anxiolytics are fentanyl, ketamine, diazepam and midazolam (Jlala et al, [2010](#)).

But these pharmacological treatments cause prolonged recovery, interfere with anesthetic drugs, drowsiness and breathing problems. Non- pharmacological approaches on the other hand are free from such side effects and are becoming more commonly used interventions. It is reported that these approaches are used nowadays both in adult anesthesia and pediatric procedures as compared to pharmacologic interventions (Kang et al, [2016](#)). Non-pharmacological measures have been found to be effective in relieving the anxiety of candidates for surgery and these measures are not dangerous for the health of patients. Different non-pharmacological measures are used in different countries such as preoperative care, showing pictures, listening to music, educational videos, and psychological counseling sessions (Copanitsanou et al, [2014](#)). Using multimedia as an informative tool for surgical candidates to provide counseling and education, has been introduced. It can control vital signs of pre-operative anxiety and reduce its level. Preoperative counseling not only educate people about the surgical procedures but also provide information about health benefits.

Well educated and those who are aware of nature and procedure of surgery have experienced lower level of pre-operative anxiety, fewer postoperative nausea and pain, shorter hospital stay and fast recovery (Bansal et al, [2019](#)). Various studies have indicated that pre-operative counseling of surgical candidates before transferring to Operation Theater, regardless of surgery type is effective in relieving the anxiety. But some conflicting results have also been mentioned in literature. Other potential tools for reinforcing the behavioral changes of patients and providing education about surgery are mobile health (mHealth) and electronic health (eHealth). Electronic education is defined as the use of digital and electronic tools in the process of educating and counseling patients (Ayvat et al, [2020](#)). Other commonly used non-pharmacological measures for pre-operative counseling are communication and interview strategies which are mostly used by anesthesiologists in reducing the pre-operative anxiety in patients. Different research studies have investigated the effectiveness of these approaches in reducing preoperative anxiety. Similarly, written information about the surgery related information has also been used as an effective tool for providing information, but not all the candidates are educated enough to understand or read the informative sheets. Some can read the content but they find it difficult to understand and retain the information.

Electronic media information in the form of videos has been the subject of most of the research studies, and the role of this measure in reducing the pre-operative anxiety has been shown, but these effects were not supported by literature studies and those who supports them are very few in number (Louw et al, [2013](#)). Before the operation, candidates usually receive different types of instructions. Typical pre-operative guidelines are: do not use aspirin seven days before the surgery, leave jewelry at home, and do not eat before or during the procedure and so on. For all the patients, remembering such guidelines may be a challenge, particularly those patients who have lower health literacy. preoperative anxiety can be increased, without proper and sufficient information or what is expected and why. This condition could affect the surgery and after effects in a negative way. Therefore, surgical staff must provide proper information and make sure their patients can understand that information by providing short and concise reasons behind them. They should also provide them a short reminder when necessary (Kain et al, [2007](#)). The surgical instructions should contain a proper information about the reason behind the preoperative steps and how they affect the health of patients in a negative way. Because without required amount of information, there a higher chance that patients may ignore the pre-operative instructions and

make the case difficult to handle for doctors. For example, many candidates are asked not to drink or eat before the surgery without a short and precise understanding of why it's required. As a result, many patients will ignore the instructions, which puts them at a risk of different complications. In short, the more the information that doctors are able to provide, the better, as candidates will feel less anxious and chances good outcomes will increase (Lim et al, [2011](#)). Many patients can manage and handle the preoperative stress or anxiety, if they have clear information of what will occur during surgery but also their condition and the expected outcomes after the surgery. While, doctors shouldn't be required to give an explanatory answer to all questions, but it is required to answer the questions in a short, precise and informative manner which give clear explanation to the patients. (Falagas et al, [2009](#)). For instance, if a candidate having a tumor removing surgery, a doctor should be able to point out how the procedure will take place, what can be expected in not removed and why it is necessary. Moreover, they should keep written content close to give their patients when necessary (Nigussie et al, [2014](#)). Another counseling strategy, is by serving as active listeners, doctors can help their candidates to reduce the pre-operative anxiety and make the patients to feel better, especially if they answer their questions clearly and politely. Deep breathing is also a measure by which patients can reduce the pre-operative anxiety and doctors should suggest their patients to take deep breaths (Poldermans et al, [2008](#)).

Non-verbal comfort is also a strategy which help the patients to reduce the level of anxiety. Studies have shown holding hands or touching a patient's shoulder can reduce the anxiety level. This method has been proved to be effective in managing the patient's anxiety. But proper consent always should be given by the candidates for this kind of strategy, and it can help them to feel more cared for and, as a result more relaxed (Hunt et al, [1999](#)). For counselling of preoperative anxiety, Cognitive behavioral therapy (CBT) is an active form of counselling, wherein patients are encouraged to involve in activities that calm them from preoperative anxiety (Rajeswari et al, [2019](#)). Cognitive therapy can be used in counselling who have various levels of education, age, even from children to adults and this approach helps individuals explore their problems and gather evidence to challenge perspectives within individuals. This approach has the function of helping individuals to restructure false and encouraging beliefs by gathering evidence to lead to more positive belief changes (Fadhli et al, [2021](#)). Some of the most promising evidence comes from studies of cognitive behavioral therapy (CBT) and mindfulness-based interventions. For example, in a study of patients undergoing lumbar fusion surgery, preoperative CBT decreased analgesic use in the CBT group (Doan et al, [2020](#)). The aim of this study is to assess the impact of counselling for reducing pre-operative anxiety in patients undergoing general anesthesia.

Patients should not be suffering from needless anxiety, while undergoing surgery. Anesthesiologists use different methods for reducing pre-operative anxiety like videos, counseling, preoperative visit by anesthetist, and premedicant drugs. Most commonly used method to reduce preoperative anxiety is sedative premedication. But, sedatives are not beneficial to use because they have lot of side effects, therefore pharmacological approaches can be replaced by no pharmacological interventions. Some anesthesiologists provide information about surgery for reducing the anxiety. Preanesthetic clinic consultation could be good option for delivering the required information and clarify the confusion of patients. This chapter provides literature studies about the use of different types of methods especially pre-operative counseling and their effects in reducing anxiety. A study conducted by Davidson et al. ([2016](#)) indicated that pre-operative counseling has a statistically significant positive effect for reducing anxiety in patients undergoing anesthesia (Davidson et al, [2016](#)). Researchers further demonstrated that pre-operative anesthesiologist visit also found to be effective for alleviating anxiety (Egbert et al, [1963](#)). conducted a study to investigate the effectiveness of videos in reducing the pre-operative anxiety. It was reported that a video containing necessary information about surgery found to be an

effective approach for reducing anxiety (Jlala et al, [2010](#)).

2 Methodology

A total of one ninety-five patients were enlisted in the study presenting for elective surgery at Northwest General Hospital Peshawar. Sample size was determined by using the Raosoft Sample size calculator by assuming the prevalence as 0.15% and 5% margin of error at 95% confidence interval. Inclusion criteria were: adults aged 20 to 50 yr, ASA I and II, and undergoing elective surgery under regional anesthesia. Exclusion criteria included an existing psychiatric disorder, significantly impaired hearing or eyesight, the inability to understand English or read. The primary outcome measure was to assess heartbeat, blood pressure and pulse rate before and after the counseling session and secondary outcome. Was to measure the anxiety level after the session by a self-reported psychological instrument, the Beck anxiety inventory (BAI). The results from the questionnaire were compiled using a data spreadsheet and then entered into the Statistical Package for the Social Sciences (SPSS) for data analysis (IBM Corporation, 2015).

3 Result

This research study was conducted to find out the effectiveness of preoperative counseling and level of anxiety after pre-operative counseling. Total 195 participants were participated in the research study. 59% of participants were male and 41% females. 33% of the participants belong to 20-30y age group, 36% to 30-40y and 31% to 40-50y.

Table 1: Demographic status of research participants.

Variables	(n)	%
Gender		
Male	115	59
Females	80	41
Age		
20-30	65	33
30-40	70	36
40-50	60	31

4 Hemodynamic parameters

Table 2 shows the hemodynamic parameters and the effect of pre-operative education on anxiety and related parameters. Table shows the comparison of hemodynamic parameters in males and females. In males, the mean heart rate was 103.63±8.55 per min,while in females it was 118.82±10.15. Statistically highly significant difference was observed ($p < 0.001$). Mean blood pressure in males was 74.63 ± 5.63 mmHg, while in females 91.59 ± 5.02mmHg at $p < 0.001$ level of significance. The mean pulse rate in male and female were 72.34 ± 6.22 and 75.34 ± 6.23 per min at $p < 0.001$ level of significance.

Table 2: Showing the effect of preoperative anxiety on haemodynamic parameters.

Variables	Mean ± S D (Males)	p value	Mean ± S D (Females)	p value
Heart Rate(Per min)	103.63 ± 8.55	< 0.001	118.82 ± 10.15	< 0.001
Blood Pressure(mm Hg)	74.63 ± 5.63		91.59 ± 5.02	

Pulse Rate(Per min)	72.34 ± 6.22		75.34 ± 6.23	
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4.1 Effects of pre-operative anxiety by BAI

BAI is a measure of state and trait anxiety and determine how the patient or participant feels right now. Its scoring range is divided into four option A (no anxiety at 0-7), B (low anxiety at 8-15), C (moderate anxiety at 16-25) and D (high anxiety at 26-63). After providing preoperative information 21 questions were asked about their feelings or anxiety before the counseling session with the anesthesiologists. Table 3 shoes the results of participants and their mean scores about anxiety by which level of stress can be assumed. First of all participants were asked about how they feel when think about surgery: majority of the participants said that they have moderate level of anxiety and have numbness, feel hot which means they loss their sensations. Preoperative anxiety may cause wobbliness in legs, uncomfortable, fear of worst happening, dizziness, heart pounding, unsteady, terrified, nervousness, feeling of chocking hands trembling, fear of losing control, difficulty in breathing, fear of dying, indigestion, faint, face flushed, scared, and sweats. Results have shown that after the pre-operative anxiety participants level of anxiety was measured by asking them to select the given option in the questionnaire. Some of the participants were in same condition with the fear of dying out, feel hot, unable to relax, feelings of choking, hands trembling, and hot/cold sweats. Observing the effects of pre-operative anxiety showed that the most common effects were faint 58 (52.7%), fear of losing control 42 (36.4%), fear of choking 42 (36.4%), and difficulty in breathing 41 (33.1%). Only 8 (7.3%) percent of participants feel wobbliness in legs due to the fear of surgery.

Table 3: Predictors of preoperative anxiety.

Possibilities causing anxiety	Percentages	Frequency	BAI (p>0.05) Mean state anxiety score
Numbness	13.6	35	53.7 ± 8.3
Feeling Hot	11.8	13	55.6 ± 9.2
Wobbliness in legs	7.3	8	55 ± 1.2
Unable to relax	11.8	13	55.6 ± 9.2
Faint	14.5	16	57.7 ± 8.8
Dizzy or lightheaded	14.5	16	57.7 ± 8.8
Heart pounding/race	14.5	16	55.6 ± 1.0
Unsteady	16.4	19	51.3 ± 8.1
Terrified or afraid	21.8	25	53.2 ± 6.6
Nervous	23.6	26	56.7 ± 7.5
Shaking	28.2	32	54.6 ± 9.0
Hands trembling	30	34	53.9 ± 8.7
Feeling of choking	36.4	42	54.9 ± 9.0
Fear of losing control	36.4	42	55.2 ± 7.7
Difficulty in breathing	33.1	41	55.7 ± 9.2
Fear of dying	11.8	13	55.6 ± 9.2
Scared	13.6	15	53.7 ± 8.3
Indigestion	23.6	26	56.7 ± 7.5
Fear of worst happening	52.7	58	57.8 ± 8.9
Face flushed	30	34	53.9 ± 8.7

Hot/cold sweats	13.6	15	53.7 ± 8.3
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Table 4: Mean preoperative anxiety level measured through BAI.

Overall Preoperative anxiety	BAI (Mean ± S D)	p value
	67.29 ± 8.51	p>0.05

4.2 BAI state anxiety score after the preoperative counselling

After the counselling session, the patient's anxiety level was measured using BAI scale. For state and trait anxiety there were ten questions which were assessed by Likert scale ranging from Not at all-somewhat, moderately and Very much so. Regarding state anxiety item, 85% of patients scored very much relaxed, 75% comfortable (very much so), and 65% pleasant (very much so).

Table 5: BAI state anxiety score after the preoperative counselling.

How do you feel?	Not at all (%)	Somewhat (%) it	Moderately (%)	Very much so (%)
Pleasant*	10	10	15	65
Confused	55	25	10	10
Worried	70	10	20	0
Tense	70	10	20	0
Relaxed*	0	10	5	85
Indecisive	55	25	10	10
Nervous	70	10	20	0
Comfortable*	10	10	5	75
Frightened	70	10	20	0
Secure	10	10	25	55
Steady	70	10	20	0
Jittery	10	10	5	75
Ease*	10	10	15	65
Secure*	70	10	20	0
Calm*	10	10	15	65
Strained	0	10	5	85
Content*	0	10	5	85
Self-confident*	10	10	15	65
Satisfied*	0	10	5	85
Presently worried	70	10	20	0
Anxious	55	25	10	10

*Positive questions which are reverse coded.

5 Discussion

Patients who are scheduled for surgery may experience anxiety as a reaction to stress. Analyzing and measuring anxiety is challenging, much like with pain. Researchers have previously discussed a range of techniques for measuring anxiety. In general, these were either objective techniques that assessed the activity of stress hormones or self-reporting questionnaires. Each of these approaches has its drawbacks. The BAI is presently regarded as the gold standard among the instruments since it has consistently demonstrated success in evaluating anxiety across a range of populations and ethnic groups and is available in a number of languages (Akinsulore et al, [2015](#)). Anxiety is a common reaction to this scenario and is generally acknowledged in patients awaiting surgery. The findings revealed that females were more impacted than males by hemodynamic factors. In

women, preoperative anxiety increased heart rate, blood pressure, and pulse rate. The results of this study revealed that the majority of the patients who were scheduled for surgery had significant levels of preoperative anxiety. The results of the study conducted in Pakistan do not support this. Because Pakistan is a reasonably sophisticated nation, people have access to information about their surgeries and may consult medical specialists about this disparity.

However, it is consistent with the results of the study conducted in Turkey. According to a study conducted at a teaching hospital in Pimpri, India, patients who were educated about the surgical process beforehand experienced much less preoperative anxiety than those who were uninformed of it (Almalki et al, [2017](#)). Preoperative anxiety may result in shaking in the legs, discomfort, fear of the worst happening, dizziness, heart palpitations, unsteadiness, terror, nervousness, feeling like you're going to pass out, trembling hands, fear of losing control, difficulty breathing, fear of dying, indigestion, fainting, face flushing, fear, and sweats. Results indicate that after experiencing preoperative anxiety, participants' levels of anxiety were assessed by having them check the appropriate box on a questionnaire. Some of the individuals shared the same symptoms, including the dread of passing away, feeling heated, unable to relax, feeling as though they were suffocating, shaking hands, and hot and cold sweats. According to several scientists, dread of anesthesia, in particular, triggers the start of preoperative anxiety. Patients undergoing scheduled surgery are educated about the procedure and the type of anaesthetic used after a preanesthetic examination.

Additionally, learning about the procedure reduces anxiety before the operation. In the current study, patients who were scheduled for surgery had preanesthetic checks by the anesthetist in the PAC clinic. Additionally, the anesthetist paid them a visit the evening before the procedure, which reduced their nervousness (Guo et al, [2020](#)). However, in the current study, the anesthetist spent significantly less time interacting with the patients undergoing emergency cesarean sections, which may have contributed to their higher levels of anxiety. The preoperative time is less stressful when patients are informed about the procedure. Preanesthetic consultation clinic may be the best location to provide the essential information and answer patients' questions. The visit at the preanesthetic checkup clinic has been shown in several studies to significantly reduce patient anxiety (Bedaso et al, [2019](#)). This finding is consistent with the current study. This would imply that knowledge is a key factor in lowering preoperative anxiety. This goes against the current research. The cause can be because to regional, socioeconomic, and culturally differences. Preoperative anxiety affects patients anticipating surgical treatments for a variety of reasons. Patients in this study were given a list of potential explanations in order to identify the various features of preoperative worry. Dread of the unknown, being in a foreign environment, losing control of the situation, and fear of death are all associated to preoperative anxiety. Interestingly, the patient's biggest worry was dread of death, which was followed by fear of the unknown.

This discrepancy may be due to Pakistan's strong emphasis on the family, where the joint family system is still mostly intact and family values are valued highly, as the researcher said. The patients in our research location were aware of the likelihood of mortality even though the public was worried about their families because the locals thought poorly of the medical professionals' abilities and because there was a lack of certain equipment. It's interesting to note that our patients' least major concern during surgery was awareness, which is comparable with Pakistan. Also evaluated was trait anxiety, a pattern of anxiety that is comparable to a personality feature. High trait-anxiety scores signify an anxious personality, whereas significant state-anxiety levels suggest high feelings of anxiety at the time of examination. This worried personality and preoperative state anxiety were significantly correlated in the research region. Preoperative anxiety levels and preoperative information delivery had an inverse relationship. These results show that preoperative state anxiety decreased as information supply increased (Eberhart et al, [2020](#)). Some research but not all studies corroborate these observations. The timing of surgery also had a negative correlation

with anxiety. This conclusion is supported by some prior research, whereas others indicated that gender was a factor in preoperative anxiety and that females experienced higher levels of worry than males (Aust et al, [2018](#)). The STAI scale was used to gauge the patient's anxiety level after the counseling session. There were eleven items for state and trait anxiety, with responses on a Likert scale ranging from Not at all to slightly, significantly, and Very much so. In terms of the state anxiety item, 85% of patients scored extremely calm, 75% very comfortable, and 65% very pleasant (very much so) (Pittman et al, [2011](#)). The results of this study indicate that it is possible to lessen patient anxiety by regularly providing preoperative information. Despite the fact that few patients were told about anesthetic, levels of state-anxiety were unaffected. Anesthesia or diagnostic knowledge had no effect on the state of anxiety. Low patient awareness of anesthesia may be regarded a topic that has to be addressed (surgical information) (Fountoulakis et al, [2006](#)).

6 Conclusion

Present research study concluded that the prevalence of anxiety in patients undergoing anesthesia was high and the most common factors that are involved in high level anxiety are fear of losing the control, fear of death, post-operative side effects, and results of operation. Preoperative counseling is very important to lower the stress, anxiety, complications during the surgery, post-operative recovery and to psychologically support the patients. The pre-operative education can be provided in the form of booklet, meetings, educational sessions, videos and verbal information. The application of anesthesiologist's educational interventions is not most commonly used in Pakistan due to the ignorance of doctors, nurses and anesthesiologists which should be focused for reducing this big issue among patients. Moreover, detailed information about the operational procedures should be provided which can provide psychosocial support, appropriate assurance to the patients that they are in safe hands. Preoperative education helps them to know what will be happened at different stages of surgery, and to make them feel better mentally or physically. This will further help them to take the responsibilities of personal care and solve their confusions. The study has concluded that pre-operative education helped the patients to feel relaxed and pleasant. In future more studies should be carried out with new ways to counsel the patients to reduce the level of anxiety and stress.

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