Physical Education, Health and Social Sciences

https://journal-of-social-education.org

E-ISSN: 2958-5996
P-ISSN: 2958-5988

Preoperative C-section Associated Anxiety in Mothers Going for the Caesarian Section in a Tertiary Care Hospital Peshawar Pakistan

Dr. Aurang Zeb[1], Nizza[2], Ziaullah[3], Farhan Ullah[3], Meher Angez[3], Nargis Tabassum[3], Shaheena Israr[3], Fauzia Naz[3]

[1] Associate Professor, Rehman College of Nursing Peshawar. Email: aurang.zeb@rmi.edu.pk
[2] Senior Lecturer/ QEC Head, Rehman College of Nursing Peshawar. Email: nizza.haider@rmi.edu.pk
[3,4,5,6,7,8] Students, Rehman College of Nursing Peshawar Pakistan Email: zia.ullah-19@rmi.edu.pk farhan.ullah-19@rmi.edu.pk meher.angaiz-19@rmi.edu.pk nargis.tabsum-19@rmi.edu.pk shaheena.israr-18@rmi.edu.pk fozia.naz-19@rmi.edu.pk
Corresponding Author: Nizza

DOI: https://doi.org/10.63163/jpehss.v3i3.509

Abstract

Background: A common response to stress is anxiety which present in patient undergoing c - section surgery as compared to general surgical population. the primary aim of this study was to investigate pre-operative anxiety in patient who were undergoing for C-section surgery at tertiary care hospital in Peshawar Pakistan

Objective: The study's main goal was to look into pre-operative anxiety in patients having C-section surgeries in a tertiary care facility in Peshawar, Pakistan.

Methodology: An institutional base cross-sectional study was conducted from July 2023 to September 2023 with total of 100 patients who undergoing for C-section surgery were included and STAI Was the study tool use for assess pre –operative anxiety in patient who were undergoing for C-section surgery.

Results: The overall pre-operative anxiety rate was respectively (13,9,78%) mild, moderate, and sever. but the study's findings indicated that patients undergoing for C section surgery had a high anxiety rate of (78%), Additionally, the looked at the significant relationships between anxiety age, and gravida, as well as between STATE and TRAIT anxiety. According to the results of the chi-square test, there was a positive relationship between anxiety TRAIT and gravida

Conclusion: Study discovered that the participant average anxiety levels were measured at 78%. The high rate of pre-operative anxiety shown in this study emphasizes how important it is for healthcare professional to identify and treat this problem in order to improve the overall surgical experience and patient outcome.

Key words: Asses pre-operative anxiety, Obstetric Patient, Gravida, C-section

Introduction

Becoming a mother and giving birth to a child is one of the most important events in a mother's life and is celebrated worldwide by everyone. However, childbirth is at the same time also associated with an extreme level of pain. Apart from pain an expecting or delivering mother also may suffer from fear, anxiety, and depression. Mild anxiety is considered normal during pregnancy, labor, and during delivery however, an excessive level of anxiety and an increase in fear might give rise to adverse consequences **(Nath, 2021)**.

Deliveries are sometime done through surgical procedures due to different reasons and one of the most frequent surgical procedure done is a Cesarean Section also called C-section. Cesarean section occurs when normal delivery is not possible **(Iddrisu & Khan, 2021).** or in some case patient willingly select a cesarean section instead of normal delivery with no indication for a Cesarean Section due to multiple reason which is called elective a Cesarean Section **(Karlström et al., 2011)**. Like other surgeries a woman expecting a C-section surgery also face preoperative anxiety.

Pre-operative anxiety is frequently defined as an uncomfortable and unpleasant feeling before surgery. A severe form of anxiety may bring severe complications during or after the procedure. Along with tachycardia, an increase in blood pressure and arterial vessel contraction, decrease

blood flow to the wound which may lead to a decrease the healing process. It also decreases the partial pressure of tissue, chronic pain, depression **(Abate et al., 2020)**.

According to WHO a study was conducted in 2015 which shows that, 10% of pregnant women and 13% of new mothers have mental disorders like anxiety and depression. The ratio is significantly higher in poor countries. 19.8% after giving birth and 15.6% throughout pregnancy **(Saxena, 2016).**

A cesarean section is one of the most popular surgical operations for women, with 18.5 million of them carried out each year globally**(Boyle et al., 2017).** The most common problem in patient which under going through C-section surgery has pre-operative anxiety and it is common side effect of C-section that is generally considered as a normal reaction **(Riddle et al., 2010).**

A study was conducted in Europe which show that the number of cases of preoperative anxiety range is from 27 % to 80 %. Where high number of cases is record in Spain while a smaller number of cases are recorded in Holland. Another study has been done in the United States of America showed that number of cases of preoperative anxiety was 20.2 % while the percentage of preoperative anxiety in Brazil was 24 % **(Abate et al., 2020)**.

The prevalence of preoperative anxiety in female surgical patient in overall Asia is 62.59 % (Bedaso et al., 2022). The overall prevalence of preoperative anxiety in India is 31 % **(Vadhanan et al., 2017).** According to literature review a study was conducted by Agha khan university Karachi Pakistan and the study results shown prevalence of preoperative anxiety in Pakistan is 62 **% (Jafar & Khan, 2009).**

Operational definition

Preoperative C-section Associated Anxiety is a term that describes the fear that pregnant mothers have before having a cesarean section (C-section) procedure **(Abate et al., 2020)**. perioperative anxiety. Defined as a confusing, unpleasant sensation for which specific causes are frequently vague and unknown to the person yet well known to cause the body to respond in a way that has unfavorable hemodynamics as a result of endocrine, sympathetic, and parasympathetic stimulation **(Almalki et al., 2017).** Pregnant mother refers to women who are expecting a child.

Cesarean section is a surgical procedure of pregnant women in which child birth occur through a surgical procedure instead of natural process **(Iddrisu & Khan, 2021)**

Preoperative mean before surgery in this article preoperative means the period before when a mother is schedule for cesarean section instead of normal delivery.

Anxiety a psychological and physiological reaction marked by sensations of anxiety, fear, stress, and uneasiness in relation to the future C-section operation. Cognitive, emotional, and physiological symptoms of anxiety can include racing thoughts, a higher heart rate, and restlessness **(Abate et al., 2020).**

Tertiary care hospital is type of specific hospital of 500 plus bedded provide advance medical service and have the own medical college.

To measure preoperative Cesarean section anxiety among primary gravida patient by self-assessment tool STAI is use.

Significance of the Study

Different study has been done on preoperative anxiety among patient in different country but there is no specific study is done on this topic. This study will give insight of specifically Preoperative C-section Associated Anxiety in Pregnant mothers going for caesarian section in tertiary care Hospital Peshawar Pakistan. This study will highlight the area for improvement and also guide future research related to this topic which will improve patient care in future.

Methodology

Study design: Study design adopted was a descriptive cross-sectional study. A descriptive cross-sectional study is used when we assess prevalence of something at a particular time **(Kesmodel,2018).**

Study setting: The study was conduct at a private sector tertiary care hospital located in Hayatabad Peshawar, Pakistan.**Study population:** The study population was preoperative pregnant Mothers plan for a caesarian section at the stated tertiary care hospital in Peshawar.

Study duration: The study duration was from July 2023 to September 2023.

Sampling technique: A consecutive sampling method was used for sampling. It is a non-probability sampling strategy. Consecutive sampling technique is more specific sub type of convenience sampling technique in which the researcher selects all the available subjects in the

study. Where participant was chosen for the research project base on their accessibility and availability.

Inclusion Criteria: Pregnant Mothers admit to the Obstetric ward, planned for Cesarean Section at the stated hospital. Age 18 years and above, Patients who will willing to participate in the study.

Exclusion criteria: Patients above 45 years of age.

Sample Size

The sample size was being calculated by using Rao soft calculator with 95% confidence interval and 5% margin of error. The population size was extracted from the previous month's data.

Study tools

For measuring the anxiety (STAI) state-trait anxiety inventory form Y was used in this study.It consist of two form Y-1 and Y-2 each of them was have 20 question with equal marks. Each question in the STAI is given a weighted score between 1 and 4. The minimum score of each form is 20 and highest score is 80. STAI scores are commonly classified as "no or low anxiety" (20-37), "moderate anxiety" (38-44), and "high anxiety" (45-80**). (çakırca, 2023).**

Data collection process

Data was collected from patients through a researcher-administered assessment tool and it was taken 10-15 minutes individually. Participation in this study was voluntary and patients were free to withdraw any time.

Ethical consideration

The permissions from different departments i.e. institutional review committee of the college, Chief Nurse of the hospital, Head of the concerned department (HOD) was obtained. Well-informed Consent was taken from the participant after explaining the purpose of the study. Confidentiality of the participants was being assured.

Data analysis

For the data analysis, SPSS version 20 was used. Percentages and frequencies for categorical variables and mean and standard deviation for the continuous variable was calculated.

RESULT

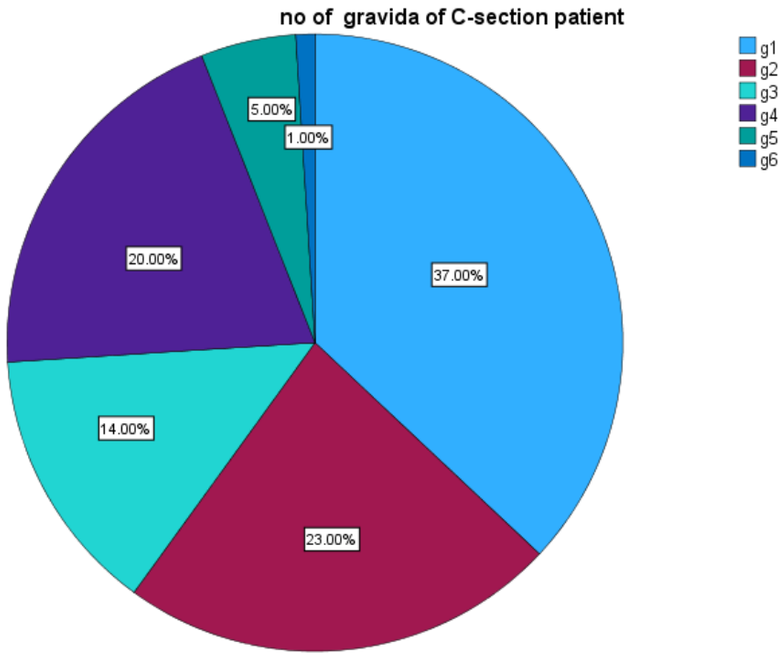
The participants of this study were female, which were 100, the age limit was18 to 38
with mean ages were 27.12±4.84 undergoing C-section as shown in table (1). Out of 100, (9) participant age were < 20 years, 20 to 30 years were 67 participants and more than 30 years were 24 participants

AGE CATEGORY TABLE (1)

Age	Percent
<20 years	**9**
20-30 years	**67**
> 30 years	**24**
Mean age	
Std. Deviation	

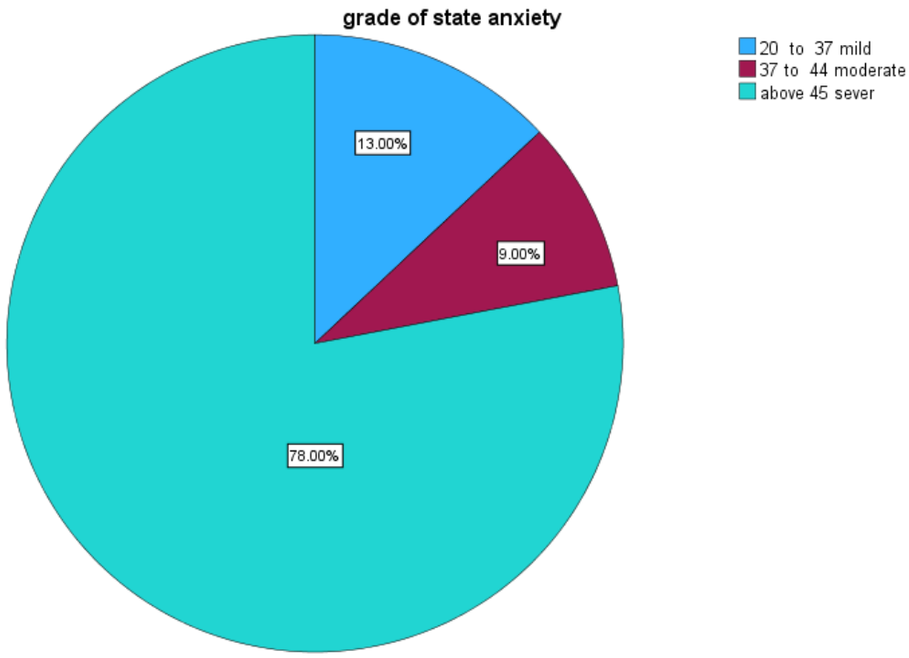
The participants were categorized on the basis of gravida as well. Which is shown in below pie chart. Figure (1)

Figure (1);



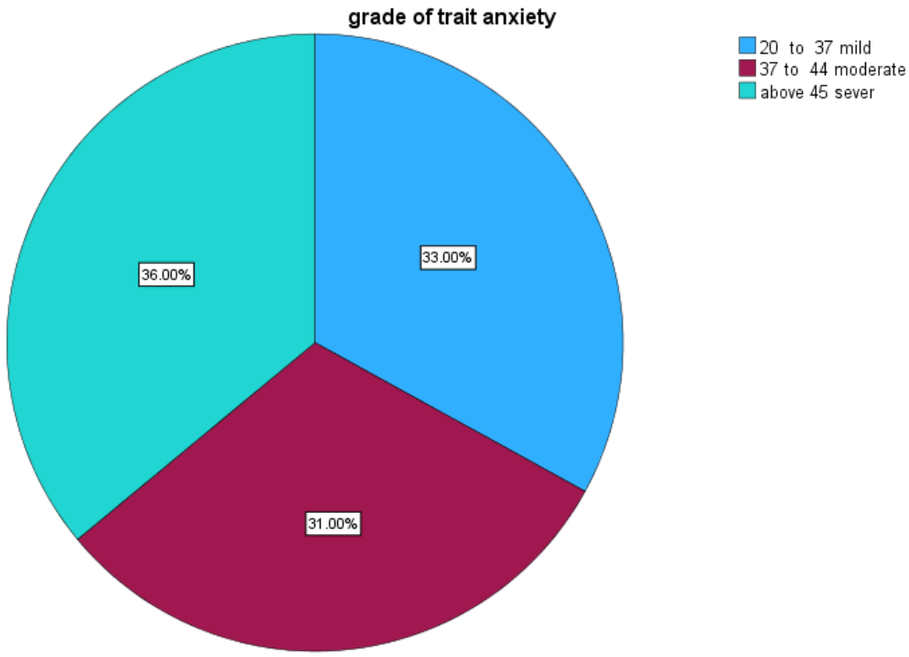
In order to assess the level of STATE anxiety which were divided into three categories: mild anxiety (20 to 37) moderate anxiety (37 to 44) and sever anxiety (above 44). The results showed that (13.00%) participant were in mild anxiety, (9.00%) participant were in moderate anxiety and (78.00%) participant were fall in sever anxiety as shown in below figure (2)

Figure (2);



Furthermore, the assessment of TRAIT anxiety was also categorized accordingly. Three categories were made to classify the level of trait anxiety and there were three levels of anxiety; mild anxiety (20 to 37) moderate (37 to 44) and sever (above 44). The results indicated that (33.00%) participant were having mild anxiety, (31.00%) participant were moderate anxiety and (36.00%) participant were fall in the category of severed anxiety as indicated in figure (3) below

Figure (3);



In order to determine the association between gravida and STATE anxiety, and gravida and TRAIT anxiety, chi-square test was used. By applying chi-square test the standard deviation was 10 and the p value was 0.058 which show that there is significant association between no. of gravida and TRAIT anxiety of the patient and by applying chi -square test the standard deviation is 4 and the P value is (0.480) which show that there is no significant association between STATE anxiety and the age of the participants.

Discussion

Anxiety is a common response to stress and is present in patients scheduled for surgery. The anxiety level in gynae a Cesarean Section patients is high as compare to other surgery **(Jafar & Khan, 2009).** When your fear of surgery is so great then the patients start to experience physical symptoms like tachycardia, nausea, chest pain and its turns into a psychological problem. Surgery might cause a panic attack in patients who are prone to anxiety. This is very important for health care professional to evaluate the anxiety of the patient which go for a Cesarean Section. **(Klopfenstein et al., 2000).** Additionally, preoperative anxiety is linked to perioperative discomfort, prolonged infection, and perioperative nausea as well as postoperative vomiting and increased nausea. Anxiety is a response to stress in patient which schedule for a surgery**(Abate et al., 2020)**. The goal of the current study was to determine the prevalence of pre-operative anxiety of the participants who were waiting for C-section in the stated hospital. The study also looked at the relation between age, gravida, state, and trait anxiety. Different tool were used to identify the anxiety of a patient going for C-section each tool have their own limitation but in this study the state trait anxiety inventory tool is used which is considered as a gold standard because it has shown a consistent result in different cultural group in determining anxiety and also available in different group **(Fountoulakis et al., 2006)**. The level of preoperative anxiety among patient undergoing various types of surgeries in many studies vary from 20% to 80% **(Pochard, Bellivier,& Squara,1996).** In addition to this , However, the majority of investigation showed that preoperative anxiety in obstetric patients is higher than in the general surgical population and ranged from 73.3 to 86% **(Beilin et al., 1996).** Moreover, in this study the prevalence rate of pre-operative anxiety was (78%) of the participants who were waiting for C-section delivery as indicated by an STAI score 44 and above. The finding of current study is comparable to those of previous which support this project, which was conducted in Ethiopia, the prevalence rates of preoperative anxiety varied from 47.3% to 70.3% (8). A study is conducted by (**Ferede et al., 2022)** in University of Gondar Comprehensive Specialized Hospital Ethiopia where the percentage of free operative anxiety among patient going for cesarean section is 63 % **(Ferede et al., 2022**)., and previous researches like (**Millar et al., 1995**) which finding are less than our study. A similar result is done in Agha khan university Pakistan where the percentage of anxiety is 62 percent which is also lower as compare to our study **(Jafar & Khan, 2009**). The possible reason might be that this study consist of female patient and most of them are uneducated .various study show that the anxiety level in un educated patient were high **(Erkilic et al., 2017).** The study population may

be a contributing factor. Only obstetric patients were included in the current study, and they also expressed preoperative worry and concern for their unborn children.

In this study the association between age and anxiety is determined which show no significant association between them. Similarly the study findings are supported by study done by **Dormer and colleagues** which show similar result **(Domar et al., 1989)** . In contrast to this other study show that there is an association between increasing age and anxiety of cesarean section patient **(Jafar & Khan, 2009)(Kindler et al., 2000)**. Unlike this study, another study found a link between anxiety and age which was done in, University of Gondar, Ethiopia .

Unfortunately, our study was not able to conduct a reliable statistical analysis of the relationship between anxiety and the type of operation and occupation for two reasons. First of all, all Obstetric and gynecological surgery patients were females, and the study discovered that gender is a significant predictor of nervousness before surgery. Additionally, those women were housewives as a class of workers. This study corelate the association between numbers of gravidas of the patient and the state and trait anxiety which show that there is significant association between trait anxiety and number of gravida while no significant association between state anxiety of the patient and number of gravidas. Which is similar to the study done by (**Maheshwari & Ismail, 2015)** and in Agha khan university Karachi **(Maheshwari & Ismail, 2015)**.The possible reason is that C-Section is a surgical procedure every patient feels same anxiety and most of the patient going for C-section for the first time whatever the gravida they have. Different study shows that increasing number of gravida or exposure to surgery decrease preoperative anxiety **(Ferede et al., 2022)**.

Limitation:

It's important to recognize the limitations of this study. The use of convenient sampling may restrict the generalizability of the finding to larger group of C-section patient in tertiary care hospital in Peshawar Pakistan. Additionally, the cross-sectional design only captured the snapshot of data at a specific point in time and does not allow for causality and temporality to be determined secondly the questionnaire was mainly focused on the assessing the pre-operative anxiety of C-section patient and it may not have addressed all aspects related with C-Section. other challenges encountered during data collecting included time and financial limitation.

Strengths;

This study contributes to the to the body of information on pre-operative anxiety in C-section patient by focusing on particular population (C section) and a specific setting (tertiary care hospital) this uniqueness might further help in our knowledge of the causes of anxiety and help in targeted intervention for this specific group. A standardized instrument or scale like the state trait anxiety inventory (STAI) add subjectively to this study as a result it is simpler to compare our result to those of other research and also it enhances the credibility of the result. Additionally, the result of the study, which highlighted the high level of anxiety among C-section patient have significant clinical amplification this can potentially lead to the development and implementation of intervention aimed at reducing anxiety level and improving the overall patient experience.

Conclusion

This study aimed to investigate the prevalence of pre-operative anxiety among mothers undergoing c section in a tertiary care hospital Peshawar Pakistan. Using a cross sectional design with a population - size of 100. The study discovered that the participant average anxiety levels were measured at 78%. The high rate of pre-operative anxiety shown in this study emphasizes how important it is for healthcare professional to identify and treat this problem in order to improve the overall surgical experience and patient outcome. Previous research has shown that pre-operative anxiety can lead to negative consequences such as increase post-operative pain delay wound healing and extended hospital stays and for this reason, it is essential that health care professional develop strategies to manage and reduce pre-operative anxiety among mother undergoing C section. It is recommended that health care professional at the tertiary care hospital in Peshawar Pakistan Implement effective strategies to monitor and manage pre-operative anxiety among women who were undergoing for c -section. These therapies may include cognitive-behavioral therapy, relaxation technique, counselling session and pre-operative education programs, may significantly reduce anxiety and enhance patient satisfaction and surgical outcome.

Reference

Abate, S. M., Chekol, Y. A., & Basu, B. (2020). Global prevalence and determinants of preoperative anxiety among surgical patients: A systematic review and meta-analysis.

International Journal of Surgery Open, 25, 6–16. https://doi.org/10.1016/j.ijso.2020.05.010

Almalki, M. S., Hakami, O. A. O., & Al-Amri, A. M. (2017). Assessment of Preoperative Anxiety among Patients Undergoing Elective Surgery. The Egyptian Journal of Hospital Medicine, 69(4), 2329–2333. https://doi.org/10.12816/0041537

Bedaso, A., Mekonnen, N., & Duko, B. (2022). Prevalence and factors associated with preoperative anxiety among patients undergoing surgery in low-income and middle-income countries: A systematic review and meta-analysis. BMJ Open, 12(3), 1–10. https://doi.org/10.1136/bmjopen-2021-058187

Beilin, Y., Rosenblatt, M. A., Bodian, C. A., Lagmay-Aroesty, M. M., & Bernstein, H. H. (1996). Information and concerns about obstetric anesthesia: A survey of 320 obstetric patients. International Journal of Obstetric Anesthesia, 5(3), 145–151. https://doi.org/10.1016/S0959-289X(96)80021-5

Boyle, A., Timofeev, J., Desale, S., Driggers, R. W., & Dudley, D. J. (2017). Weight Gain: A Modifiable Risk Factor for Primary Cesarean Delivery. Open Journal of Obstetrics and Gynecology, 07(05), 525–531. https://doi.org/10.4236/ojog.2017.75055

çakırca, M. (2023). Does Preoperative Anxiety Decrease When Obesity Is Eliminated? Research Review, 05(12), 1554–1559. https://doi.org/10.52845/cmro/2022/6-1-1

Domar, A. D., Everett, L. L., & Keller, M. G. (1989). Preoperative anxiety: Is it a predictable entity? Anesthesia and Analgesia, 69(6), 763–767. https://doi.org/10.1016/s0001-2092(07)66853-7

Erkilic, E., Kesimci, E., Soykut, C., Doger, C., Gumus, T., & Kanbak, O. (2017). Factors associated with preoperative anxiety levels of Turkish surgical patients: From a single center in Ankara. Patient Preference and Adherence, 11, 291–296. https://doi.org/10.2147/PPA.S127342

Ferede, Y. A., Bizuneh, Y. B., Workie, M. M., & Admass, B. A. (2022). "Prevalence and associated factors of preoperative anxiety among obstetric patients who underwent cesarean section": A cross-sectional study. Annals of Medicine and Surgery, 74(January), 103272. https://doi.org/10.1016/j.amsu.2022.103272

Fountoulakis, K. N., Papadopoulou, M., Kleanthous, S., Papadopoulou, A., Bizeli, V., Nimatoudis, I., Iacovides, A., & Kaprinis, G. S. (2006). Reliability and psychometric properties of the Greek translation of the State-Trait Anxiety Inventory form Y: Preliminary data. Annals of General Psychiatry, 5, 1–10. https://doi.org/10.1186/1744-859X-5-2

Iddrisu, M., & Khan, Z. H. (2021). Anesthesia for cesarean delivery: general or regional anesthesia—a systematic review. Ain-Shams Journal of Anesthesiology, 13(1), 1–7. https://doi.org/10.1186/s42077-020-00121-7

Jafar, M. F., & Khan, F. A. (2009). Frequency of preoperative anxiety in Pakistani surgical patients. Journal of the Pakistan Medical Association, 59(6), 359–363.

Karlström, A., Nystedt, A., Johansson, M., & Hildingsson, I. (2011). Behind the myth - few women prefer caesarean section in the absence of medical or obstetrical factors. Midwifery, 27(5), 620–627. https://doi.org/10.1016/j.midw.2010.05.005

Kesmodel, U. S. (2018). Cross-sectional studies – what are they good for? Acta Obstetricia et Gynecologica Scandinavica, 97(4), 388–393. https://doi.org/10.1111/aogs.13331

Kindler, C. H., Harms, C., Amsler, F., Ihde-Scholl, T., & Scheidegger, D. (2000). The visual analog scale allows effective measurement of preoperative anxiety and detection of patients' anesthetic concerns. Anesthesia and Analgesia, 90(3), 706–712. https://doi.org/10.1097/00000539-200003000-00036

Klopfenstein, C. E., Forster, A., & Van Gessel, E. (2000). Anesthetic assessment in an outpatient consultation clinic reduces preoperative anxiety. Canadian Journal of Anesthesia, 47(6), 511–515. https://doi.org/10.1007/BF03018941

Maheshwari, D., & Ismail, S. (2015). Preoperative anxiety in patients selecting either general or regional anesthesia for elective cesarean section. Journal of Anaesthesiology Clinical Pharmacology, 31(2), 196–200. https://doi.org/10.4103/0970-9185.155148

Millar, K., Jelicic, M., Bonke, B., & Asbury, A. J. (1995). Assessment of preoperative anxiety: Comparison of measures in patients awaiting surgery for breast cancer. British Journal of Anaesthesia, 74(2), 180–183. https://doi.org/10.1093/bja/74.2.180

Nath, I. (2021). A Comparative Study to Assess the Level of Anxiety among Primi Gravida Mothers Planned for Normal Vaginal Delivery and Caesarean Section in the Selected Hospital, Agartala, West Tripura. International Journal of Science and Healthcare Research, 6(2), 58–61. https://doi.org/10.52403/ijshr.20210412

Riddle, D. L., Wade, J. B., & Jiranek, W. A. (2010). Major depression, generalized anxiety disorder, and panic disorder in patients scheduled for knee arthroplasty. Journal of Arthroplasty, 25(4), 581–588. https://doi.org/10.1016/j.arth.2009.04.002

Saxena, S. (2016). Challenges and opportunities in global mental health: A perspective from WHO. Epidemiology and Psychiatric Sciences, 25(6), 495–498. https://doi.org/10.1017/S2045796016000536

Vadhanan, P., Tripaty, D. K., & Balakrishnan, K. (2017). Pre-operative anxiety amongst patients in a tertiary care hospital in India- a prevalence study. Journal of Society of Anesthesiologists of Nepal, 4(1), 5–10. https://doi.org/10.3126/jsan.v4i1.17377

Abate, S. M., Chekol, Y. A., & Basu, B. (2020). Global prevalence and determinants of preoperative anxiety among surgical patients: A systematic review and meta-analysis. International Journal of Surgery Open, 25, 6–16. https://doi.org/10.1016/j.ijso.2020.05.010

Almalki, M. S., Hakami, O. A. O., & Al-Amri, A. M. (2017). Assessment of Preoperative Anxiety among Patients Undergoing Elective Surgery. The Egyptian Journal of Hospital Medicine, 69(4), 2329–2333. https://doi.org/10.12816/0041537

Bedaso, A., Mekonnen, N., & Duko, B. (2022). Prevalence and factors associated with preoperative anxiety among patients undergoing surgery in low-income and middle-income countries: A systematic review and meta-analysis. BMJ Open, 12(3), 1–10. https://doi.org/10.1136/bmjopen-2021-058187

Beilin, Y., Rosenblatt, M. A., Bodian, C. A., Lagmay-Aroesty, M. M., & Bernstein, H. H. (1996). Information and concerns about obstetric anesthesia: A survey of 320 obstetric patients. International Journal of Obstetric Anesthesia, 5(3), 145–151. https://doi.org/10.1016/S0959-289X(96)80021-5

Boyle, A., Timofeev, J., Desale, S., Driggers, R. W., & Dudley, D. J. (2017). Weight Gain: A Modifiable Risk Factor for Primary Cesarean Delivery. Open Journal of Obstetrics and Gynecology, 07(05), 525–531. https://doi.org/10.4236/ojog.2017.75055

çakırca, M. (2023). Does Preoperative Anxiety Decrease When Obesity Is Eliminated? Research Review, 05(12), 1554–1559. https://doi.org/10.52845/cmro/2022/6-1-1

Domar, A. D., Everett, L. L., & Keller, M. G. (1989). Preoperative anxiety: Is it a predictable entity? Anesthesia and Analgesia, 69(6), 763–767. https://doi.org/10.1016/s0001-2092(07)66853-7

Erkilic, E., Kesimci, E., Soykut, C., Doger, C., Gumus, T., & Kanbak, O. (2017). Factors associated with preoperative anxiety levels of Turkish surgical patients: From a single center in Ankara. Patient Preference and Adherence, 11, 291–296. https://doi.org/10.2147/PPA.S127342

Ferede, Y. A., Bizuneh, Y. B., Workie, M. M., & Admass, B. A. (2022). "Prevalence and associated factors of preoperative anxiety among obstetric patients who underwent cesarean section": A cross-sectional study. Annals of Medicine and Surgery, 74(January), 103272. https://doi.org/10.1016/j.amsu.2022.103272

Fountoulakis, K. N., Papadopoulou, M., Kleanthous, S., Papadopoulou, A., Bizeli, V., Nimatoudis, I., Iacovides, A., & Kaprinis, G. S. (2006). Reliability and psychometric properties of the Greek translation of the State-Trait Anxiety Inventory form Y: Preliminary data. Annals of General Psychiatry, 5, 1–10. https://doi.org/10.1186/1744-859X-5-2

Iddrisu, M., & Khan, Z. H. (2021). Anesthesia for cesarean delivery: general or regional anesthesia—a systematic review. Ain-Shams Journal of Anesthesiology, 13(1), 1–7. https://doi.org/10.1186/s42077-020-00121-7

Jafar, M. F., & Khan, F. A. (2009). Frequency of preoperative anxiety in Pakistani surgical patients. Journal of the Pakistan Medical Association, 59(6), 359–363.

Karlström, A., Nystedt, A., Johansson, M., & Hildingsson, I. (2011). Behind the myth - few women prefer caesarean section in the absence of medical or obstetrical factors. Midwifery, 27(5), 620–627. https://doi.org/10.1016/j.midw.2010.05.005

Kesmodel, U. S. (2018). Cross-sectional studies – what are they good for? Acta Obstetricia et Gynecologica Scandinavica, 97(4), 388–393. https://doi.org/10.1111/aogs.13331

Kindler, C. H., Harms, C., Amsler, F., Ihde-Scholl, T., & Scheidegger, D. (2000). The visual analog scale allows effective measurement of preoperative anxiety and detection of patients' anesthetic concerns. Anesthesia and Analgesia, 90(3), 706–712. https://doi.org/10.1097/00000539-200003000-00036

Klopfenstein, C. E., Forster, A., & Van Gessel, E. (2000). Anesthetic assessment in an outpatient consultation clinic reduces preoperative anxiety. Canadian Journal of Anesthesia, 47(6), 511–515. https://doi.org/10.1007/BF03018941

Maheshwari, D., & Ismail, S. (2015). Preoperative anxiety in patients selecting either general or regional anesthesia for elective cesarean section. Journal of Anaesthesiology Clinical Pharmacology, 31(2), 196–200. https://doi.org/10.4103/0970-9185.155148

Millar, K., Jelicic, M., Bonke, B., & Asbury, A. J. (1995). Assessment of preoperative anxiety: Comparison of measures in patients awaiting surgery for breast cancer. British Journal of

Anaesthesia, 74(2), 180–183. https://doi.org/10.1093/bja/74.2.180

Nath, I. (2021). A Comparative Study to Assess the Level of Anxiety among Primi Gravida Mothers Planned for Normal Vaginal Delivery and Caesarean Section in the Selected Hospital, Agartala, West Tripura. International Journal of Science and Healthcare Research, 6(2), 58–61. https://doi.org/10.52403/ijshr.20210412

Riddle, D. L., Wade, J. B., & Jiranek, W. A. (2010). Major depression, generalized anxiety disorder, and panic disorder in patients scheduled for knee arthroplasty. Journal of Arthroplasty, 25(4), 581–588. https://doi.org/10.1016/j.arth.2009.04.002

Saxena, S. (2016). Challenges and opportunities in global mental health: A perspective from WHO. Epidemiology and Psychiatric Sciences, 25(6), 495–498. https://doi.org/10.1017/S2045796016000536

Vadhanan, P., Tripaty, D. K., & Balakrishnan, K. (2017). Pre-operative anxiety amongst patients in a tertiary care hospital in India- a prevalence study. Journal of Society of Anesthesiologists of Nepal, 4(1), 5–10. https://doi.org/10.3126/jsan.v4i1.17377