



## Original Research Article

## Preoperative anxiety assessment among women undergoing surgery in department of OBG of Saveetha medical college and hospital

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## ABSTRACT

**Introduction:** The aim of the present study was to assess the anxiety among preoperative women in department of OBG of Saveetha Medical College and Hospital. Hospitalization of a patient during surgery is considered to be a stressful situation. During preoperative period, patients experience anxiety, if untreated leads to an adverse impact on postoperative recovery of a patient.

**Materials and Methods:** An observational study was done on 96 patients aged between 21–70 years undergoing elective both obstetrical and gynecological surgeries in department of OBG in SMCH. After collecting basic demographic details from the participants, by interview method using a structured questionnaire the study was conducted.

**Results:** Prevalence of preoperative anxiety was (63.54%). Patients awaiting elective both obstetric and gynecological surgeries experienced a high level of preoperative anxiety. Based on the severity, very severe anxiety is seen in 63%, severe anxiety in 33.33% while 2.08% showed moderate level of anxiety and mild anxiety is not seen and 1.04% did not show any anxiety. Higher levels of anxiety were seen in older age groups (100%) compared to younger aged ones 51–60 years (69.2%), 31–40 years range (70%) and 21–30 years (56.66%). Higher education was found to be related to higher anxiety levels. Patients belonging to lower middle class 36 (59.02%) showed higher levels of anxiety while upper middle class showed lower levels of anxiety 25(40.98%). Patients undergoing gynecological surgery was found to have highest level of preoperative anxiety compared to patients undergoing obstetrical surgery.

**Conclusion:** The younger age, lower level of socioeconomic status and higher level of education showed positive association with preoperative anxiety. Preoperative education for these group will reduce preoperative anxiety. Reducing preoperative anxiety, will enhance smooth postoperative recovery. Preoperative education is the best way to reduce anxiety.

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## 1. Introduction

Anxiety is defined as a set of behavioral manifestations. It is mainly of two types, state- anxiety and trait anxiety. State-anxiety, is an occasionally driven episodes of anxiety that do not persist beyond the situation that triggers them. It is a temporary emotional state that consists of feelings of tension, apprehension, nervousness, worry, and of heightened activity of the autonomic nervous system. This state varies in intensity and fluctuates over time. Trait-anxiety is a condition in which individual

experiences a lifelong pattern of anxiety. It is a personality feature. Individuals with trait-anxiety are generally jittery, nervous, hypersensitive to stimuli, and psychologically more reactive.<sup>1</sup>

Anxious patients respond differently to anaesthesia than non-anxious patients. Different doses of induction agents and postoperative analgesia are required in anxious patients. Various factors influencing anxiety in a patient planned for surgery include, age, gender, level of education, socioeconomic status, previous surgical experiences, preoperative information, cultural diversity, type of surgery.

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The most common response to stress is anxiety which is present in patients undergoing surgery. Preoperative anxiety in women undergoing surgery predicts postoperative satisfaction with the process, perceptions of recovery, analgesic use or length of hospital stay.

Literature suggest that the postoperative recovery process is more painful, slower, and more complicated in adult patients who had high levels of preoperative anxiety.<sup>2</sup> During postoperative period, trait anxiety caused higher consumption of analgesic medications compared to state anxiety.<sup>3</sup> Higher levels of anxiety contribute to the development of postoperative complications such as increased levels of postoperative pain, weakened immune response, delayed wound healing, delay in recovery time, postoperative satisfaction.<sup>4</sup>

## 2. Materials and Methods

The present observational study was approved by the Institutional Human Ethics Committee and conducted on the women, undergoing their elective surgical procedures (Both Obstetrics and Gynecology) in the Department of Obstetrics and Gynecology of Saveetha Hospital. Based on existing literature, the estimated sample size to be studied was calculated to be 96. Study is conducted using a Structured Questionnaire after obtaining the consent from the patients who are undergoing elective surgery (Both Obstetrics and Gynecology) and are willing to take part in the study. Patients who were known to have any psychiatric illness and are were on any type of anxiolytic medications were excluded from the present study. Basic demographic details of the participant were collected. Based on the degree of severity, each question is graded as not present, mildly present, moderately present, severe and very severe. Data collection is done by question (interview) method. Data analysis was done by using Microsoft Excel.

## 3. Results

The present study is conducted on 96 study participants. Of 96 study participants, 31.25% study population was in the age range of 21–30 and 41–50. 83.33% of the total study population are in the reproductive age.

**Table 1:** Age distribution among study population

Age (in Years)	Frequency (n = 96)	Percentage (%)
21 – 30	30	31.25
31 – 40	20	20.83
41 – 50	30	31.25
51 – 60	13	13.54
61 – 70	3	3.12

Out of 96 study participants, 59.37% of them feel weak very severely and 3.13% do not feel any form of weakness. 52.08% of the participants have severe palpitations and

**Table 2:** Frequency distribution of education status among study population

Level of education	Frequency (n = 96)	Percentage (%)
Not attended formal education	7	11.45
Primary education	12	14.59
Secondary education	24	21.88
College and above	53	50.08

7.29% have mild palpitations. Severe urge to urinate frequently is observed in 51.04% of the study population while 4.17 % do not experience any urgency. Very severely increase in tendency to sweat is seen in 40.62% while only 3.13% do not show any increase in sweating tendency. 60.41% of the study participants experience difficulty in falling asleep very severely, while only 3.13% do not experience any such difficulty. 6 1.46% of the participants found to experience very severe tension headache while only 5.21% do not get tension headache. (Figure 1)

63.54% of the participants feel anxious very severely, 1.04% do not feel any anxiety. 40.6 2% of the study population lack confidence, while only 4.17% are confident about the surgical procedure. (Figure 2)

Out of 96 study participants 79.16% are fearful of anesthesia procedure, only 3.13% are not fearful. 66.66% of the study participants are fearful about the complications of medications used during anesthesia. 78.13% of the study participants are very much worried about the surgical procedure. 81.25% are worried about the outcome of the surgery. (Figure 3)

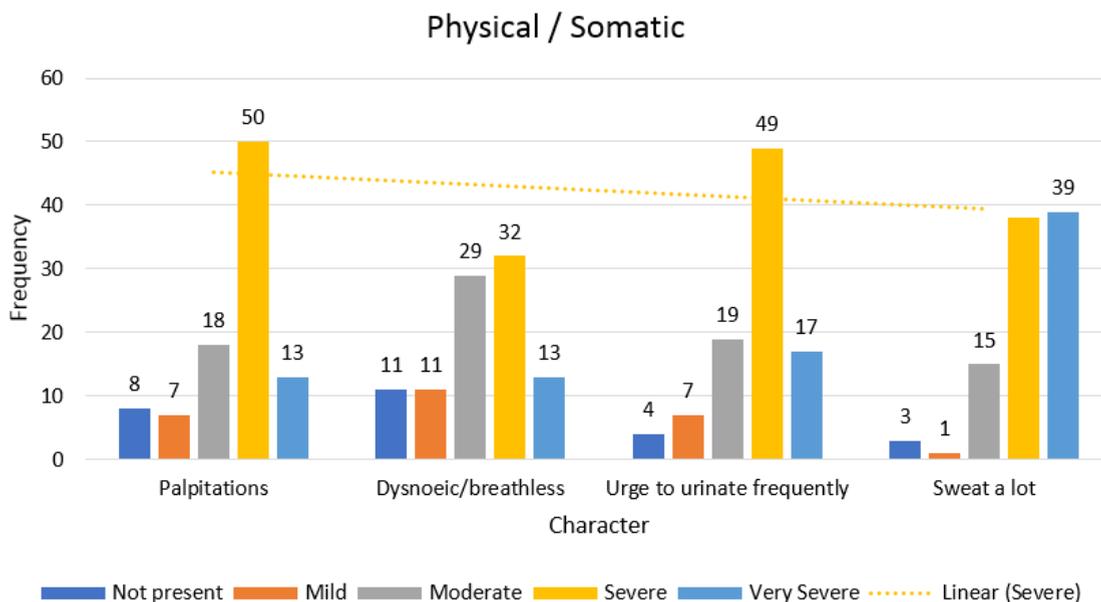
Higher levels of anxiety were found in the age range of 61–70 years (100%) followed by 51 – 60 years (69.2%) while the least levels of anxiety were found in 31 – 40 years range (7 0%). (Table 3)

Individuals from lower socio-economic status were found to experience higher levels of anxiety compared to upper socio-economic status (40.98%). (Table 4)

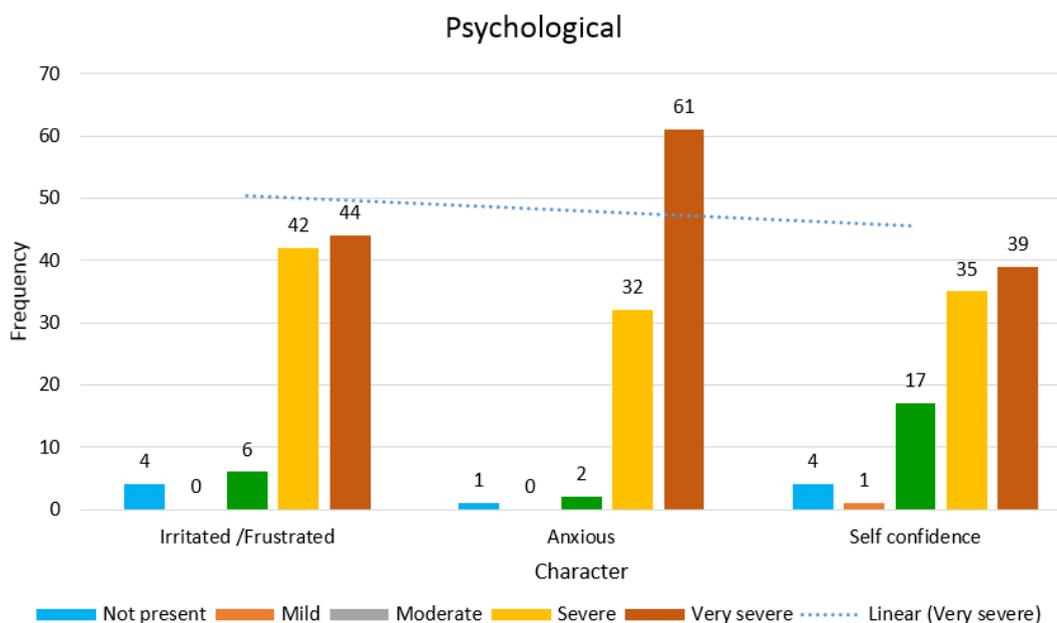
98.11% study individuals are found to have higher levels of anxiety of the 53 individuals who belong to college and above level of education while there is a decrease in the levels of anxiety with the lower level of education among secondary and primary education which is 83.33%. In the individuals who have not taken any formal education the level of anxiety is found to be least, that 81.1%.

Out of 61 anxious patients, 80.32% (49) patients had prior experience of surgery and preoperative anesthetic clinic visit while 19.67% (12) patients did not had any prior experience. (Figure 4)

Out of 96 patients, 56 patients had undergone elective gynecological surgery of which 66.07% (37) patients show higher levels of preoperative anxiety. 40 patients underwent obstetrical surgery, of which 60% (24) patients showed



**Fig. 1:** Bar chart showing the physical/somatic manifestations of anxiety



**Fig. 2:** Bar charts showing the Psychological manifestations of anxiety

**Table 3:** Frequency distribution of very severe anxiety among various age groups of study population

S. No	Age	Frequency (n = 96)	Frequency of higher level of Anxiety (n= 63)	Percentage with very severe anxiousness
1.	21 – 30	30	17	56.66
2.	31 – 40	20	14	70
3.	41 – 50	30	20	66.66
4.	51 – 60	13	9	69.2
5.	61 – 70	3	3	100

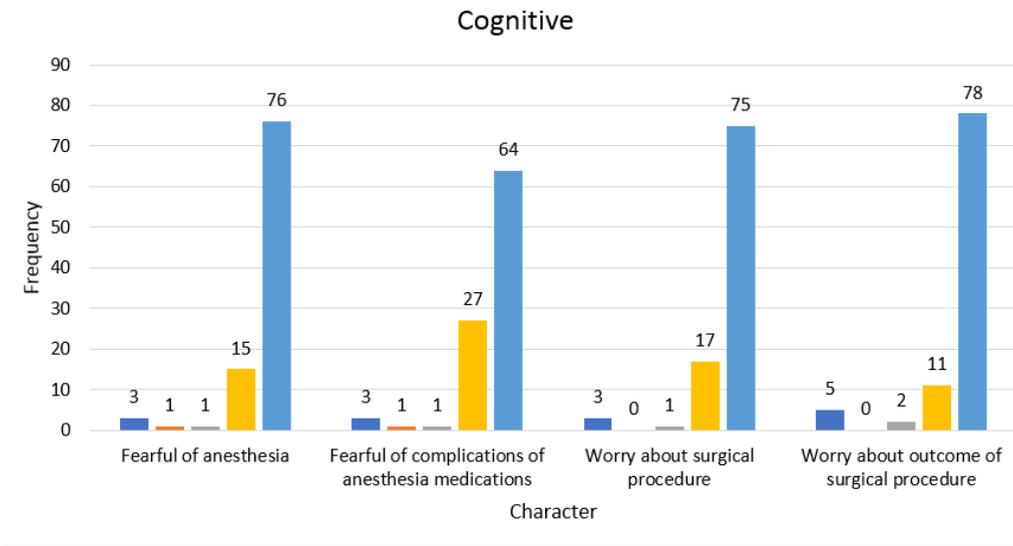


Fig. 3: Bar charts showing the cognitive manifestations of anxiety

Table 4: Frequency distribution of anxious nature among upper and lower socio-economic status

Character	Frequency (n = 61)	Percentage (%)
Upper Middle Class	25	40.98
Lower Middle Class	36	59.02
<b>Total Anxious Patients</b>	<b>61</b>	<b>100</b>

Table 5: Frequency distribution of higher levels of anxiety among types of surgery

S. No	Type of Surgery	Frequency (n = 96)	Percentage %	Frequency of higher levels of anxiety (n = 61)	Percentage of higher levels of anxiety %
1.	Gynecological surgery	56	58.33	37	66.07
2.	Obstetrical surgery	40	41.67	24	60
<b>Total</b>		<b>96</b>	<b>100</b>	<b>61</b>	<b>-</b>

Prior experience of surgery and anesthesia

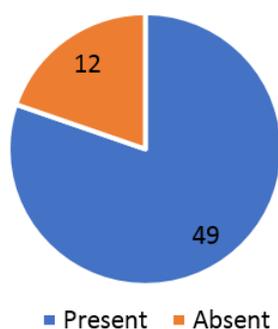


Fig. 4: Pie charts showing the prior experience of surgery and anesthesia

#### 4. Discussion

Anxiety is an emotional state characterized by apprehension and fear resulting from anticipation of a threatening event. The overall prevalence of preoperative anxiety in this study was 61 (63.54%) patients awaiting elective both obstetric and gynecological surgeries experienced a high level of preoperative anxiety. Similar to this finding, a study conducted in Pakistani surgical patients which was 62%.<sup>5</sup> Similar results were found in another study conducted in Indian Surgical patients where 58.9% of the patients were experiencing higher levels of anxiety.<sup>6</sup> The result of this present study was found to be higher than the studies conducted in Austria, Saudi Arabia and Nigeria with overall prevalence of preoperative anxiety was 45.3%, 55% and 51% respectively.<sup>7-9</sup> The level of anxiety is found to be high in higher age groups (100%) compared to small aged patients 51–60 years (69.2%), 31–40 years range (70%) and 21–30 years (56.66%). In contrast to this finding, a study showed that as the age increased the anxiety level

higher levels of preoperative anxiety. (Table 5)

decreased.<sup>5</sup> Higher education was found to be related to higher anxiety levels. Similar observations were found in the study done by Mohammad Faisal Jafar et al, Domer et al and Caumo.<sup>5,10,11</sup> Patients with prior experience of surgery and anesthesia had low levels of anxiety compared to those who had no prior surgical experience. This finding was consistent with the study done by Moerman, Kindler and Caumo.<sup>11–13</sup>

Higher levels of anxiety were found in the patients belonging to lower middle class 36 (59.02%) while upper socio-economic status showed lower levels of anxiety 25(40.98%). A study done by Mohammad Faisal Jafar et al showed the similar finding.<sup>5</sup> Patients undergoing gynaecological surgery was found to have highest level of preoperative anxiety compared to patients undergoing obstetrical surgery. In Contrast to this, in a study done by Mohammad Faisal Jafar et al patients undergoing obstetrical surgery showed higher level of anxiety followed by gynaecological surgery.<sup>5</sup> While some studies done by Moerman et al and Boker et al showed that the type of surgery does not show any effect on preoperative anxiety. Studies done on post-operative women shows that low levels of anxiety were associated with better post-operative maternal satisfaction and speedy recovery.<sup>13,14</sup>

## 5. Conclusion

In the present study, prevalence of preoperative anxiety was 63.54%. The younger age, lower level of socioeconomic status and higher level of education showed positive association with preoperative anxiety. Preoperative education for these group will reduce preoperative anxiety. Reducing preoperative anxiety, will enhance smooth postoperative recovery. Preoperative education is the best way to reduce anxiety.

## 6. Limitations of the study

As the study is done on a limited population extrapolation of the results to the general population cannot be made.

## 7. Acknowledgement

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None.

## 9. Conflict of interest

Nil.

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