

Fear and Anaesthesia: a Cross-sectional Study

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Abstract: Fear connected to anaesthesia has led to majority of patients from being tentative to undergo routine as well as life saving surgical procedures. Fear and anxiety coupled with the thought of surgical events causes many endocrine as well as hemodynamic instabilities. To evaluate this we formed a question bank which was provided to 400 patients during pre anaesthetic checkups, which included patient demographics, their fears pertaining anaesthesia and previous exposure to anaesthesia. Eighty four percent were subjected to preoperative fear, with pain during surgical procedure being most common at 80%, followed by intra operative awareness (71%) and needle pricks (66%). There are very noteworthy predictors as females experienced more fear and so did those above age of 45 years. We suggest adequate counselling and management of the patients pharmacologically earlier to the procedure as effective steps in gaining trust and relieving anxiety in patient.

Keywords: Anaesthesia, Fear, Anxiety, Cross-sectional study

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I. Introduction

Anaesthesia is labelled as a easily reversible state of loss of sensation and includes analgesia, unconsciousness, muscle relaxation and amnesia with autonomic stability. Few methods commonly used are general and spinal anaesthesia A high quality anaesthesia aims to relieve not only the patient's intolerable pain but also put to rest anxiety during the surgical procedures that potentiates undesirable haemodynamic instabilities in the patient when posted for surgery. The concept of undergoing anaesthesia scares many people world over. To few, the contemplation of going under anaesthesia leads to unfathomable fear and anxiety maybe far greater than the thought of the actual surgical procedure. This may lead to patients cancelling their operations.[1] It is normal for one to experience anxiety when one thinks he may lose control over his normal functioning. Fear of anaesthesia is principal to judge as it indicates the quality of service provided by not only the anaesthetist but also the hospital. If not handled well the anxiety and fear of anaesthesia in patients who undergo the procedure also interferes with follow-up of the patient in the postoperative period as well as develops a phobia towards future surgical needs. [1]

Studies show that the lots of the patients have anxiety toward anaesthesia. Kain *et al.* in his study noticed that 75% of the patients had anxiety about going under anaesthesia [1] The main starting point of anxiety and fear in individuals before the operation stems from the lack of knowledge of the anaesthesia itself (62%) rather than the surgical procedure (15%), [2,3] pain due to the procedure, [4,5] and other psychophysical components [6,7, 8,9] also play a part in forming anxiety. Administering acceptable pre-procedural anxiolytics is one of the methods used to decrease anxiety of individuals who are otherwise ready to undergo surgery. Medications similar to midazolam are widely used as a pre-anaesthetic aid to prevent anxiety in apprehensive patients [10,11]. Perhaps a good reinforcement of the patient may also help.

This study aims to identify the concerns among the patients regarding anaesthesia prior to their surgeries, to know the root cause of patients fears prior to anaesthesia and to assess whether there is any link between the fears and the patient demographics.

II. Material And Methods

This is a cross-sectional survey on patients due for routine as well as emergency surgery during pre-anaesthetic checkups. The study was performed at the Goa Medical college and Hospital. It was conducted with the approval Institutional ethical committee. The subjects included in this study were patients who were above the age of 18 years.

Subjects who were excluded were patients

- 1 .who declined to fill out the questionnaire
- 2 .patients that were under the age of 18 years
- 3 .patients with problem communicating, which may have been due to the language hurdle
- 4 .patients with a history of a psychiatric disorder

5. patients who were physically unable to be interviewed.

The main objective is to judge the predominance of the most common fears associated with general as well as spinal anaesthesia among patients admitted for surgeries. As accounted in a his study Mavridou *et al.*, the most shared fears were as follows: Post-op pain (84%), nausea (60.2%), paralysis post-operatively due to the anaesthesia (33.5%) and revealing personal information while anesthetized (18.8%).

Assuming confidence interval of 95%, alpha level of 0.05, a 5% precision, the needed sample size was 400 subjects^[2]

We developed a questionnaire based on common fears and demographic of the patient group. We tested the questionnaire through a pilot study during pre-anaesthetic check-up before the actual data collection. The final form of the structured questionnaires was than given out for data collection.

The data collection was initiated in April 2018. Questionnaires were randomly distributed among targeted patients during the pre-anaesthetic check-up. Patients consented to participate after being informed about the use of the study and guaranteeing that personal details would be kept anonymous.

The surveys was administered to patients by the researchers. The data collectors then gave the patients ample time to fill out the questionnaire independently, before the patient underwent surgery. Variables such as age groups, gender, education level and previous anaesthesia experience are summarized in [Table 1](#) and given in terms of frequency distribution. Categorical and interval variables were compared using Chi-square test and student *t*-test. All tests were considered significant at alpha level < 0.05 . Frequency analysis was used to scrutinise the top three fears of anaesthesia.

Results were reported in terms of frequency, confidence interval 95% and standard error and proportion. The top cause of three fears were probed across demographic characteristics of the study group using Chi-square test / *t*-test. Significance was declared at alpha < 0.05. Binary logistic regression was utilised to find out significant prediction of the total fear. Findings were described in terms of odds ratio, 95% confidence interval, and P-value. Results were declared significant at $\alpha < 0.05$.

Statistical analysis

Data was transfered to a Excel spreadsheet once collection. All variables were abridged in terms of maximum and minimum values. Minimum and maximum values were compared against the nominal maximum and minimum value of each variable. Data was analyzed with the SPSS software.

III. Results

Table1

GENDER	Total (%)
Male	192(48%)
Female	208(52%)
AGE	
18-44	145(36%)
45-60	175(43%)
>60	80(20%)
EDUCATION	
None	113(28%)
School	185(46%)
College	102(25%)
PREVIOUS EXPOSURE TO ANAESTHESIA	
No	169(42%)
Once	123(30%)
> Twice	108(27%)

TABLE 2

FEAR	(%)
Postop nausea	33%
Postop pain	80%
Death	22%
Needles and drain	66%
Absence of anaesthesiologist	18%
Being drowsy	25%
Lack of trust on skills of anaesthesiologist	24%
Intra-op awareness	71%
Not waking up	28%
Admission to ICU	15%
Revealing personal information	8%

Once gathered, we analyzed 400 questionnaires from the pre-anaesthesia check-ups. Patients' demographics are shown in [Table 1](#). The majority of the individuals were females 208 (52%). The mean age was 33 ± 11 . The majority of the patients had received some form of schooling 185(46%) but had not been to college. Most patients had previously never been exposed to anaesthesia 169(42%). The number of individuals who were had fear of the procedure was 336 (84%). The number of patients who were not experiencing fear of both the surgery or anaesthesia was 64(16%), patients who were afraid of both were 142 (30.8%), and the number of patients who were afraid of anaesthesia only was 157 (39%).

Patients' specific fears are presented in [Table 2](#). The leading reasons of fears were the fear of postop pain, 320 (80%), fear of intra operative awareness, 284 (71%). Patients were also found to be scared of drains and needles in the operative theatre 264 (66%). Fear of post-op nausea was as high as 132 (33%). The fear of revealing personal information while under anaesthesia 32 (8%) and of not waking up after surgery 112 (28%).

The results reveal that patients' demographics are related to the generation of their fears. Gender is the most significant contributor, with women being more afraid ($P = 0.003$). Age is another important contributor. Those above the age of 45, compared with those under 45, are more likely to get anxious towards anaesthesia ($P = 0.006$). P value was equal to 0.05 in patients who have had a undergone anaesthesia as compared to those who did not receive anaesthesia before.

IV. Discussion

A frequent problem that all hospitals tackle during pre-anaesthetic check-ups is the patient's fear of going under anaesthesia as well as the surgery. Once the physician discloses to the patient the requirement for the surgical procedure, the patient starts to imagine of a life and death situation rising from anxiety due to the surgery as well as anaesthesia. In the previously done studies, it is stated that large number of the individuals said that their fears are mainly because of anaesthesia (62%) rather than the surgery (15%).^[2,3] However, in our study, pain during surgical procedure being most common at 80%, followed by intra operative awareness (71%) and needle pricks (66%). A large number of patients stated that they were neither afraid of the surgery nor anaesthesia (16%). This is one noteworthy discovery that some patients had different answers. This could be because the fact that the patients had never considered these fears. We found that preoperative fear was superior in people of an older age (45 years and above) than people of a younger age. Mavridou *et al.*, in a similar study the preoperative anxiety of anaesthesia percentage reached (81%), with women being more anxious than men.^[12] In our study we also observed that the causes of fear in patient are multi-faceted rather than one single cause. We decided to measure specific fears based on old studies that discussed individuals' fears of anaesthesia. There were some variations in observed data of fears between different studies. Also few studies have some interesting fears associated with anaesthesia include:

1. Disclosing personal information while anaesthetised
2. Anaesthesia failure
3. Awakening during surgery.

There are fears associated with the anaesthesiologist not being present or with the skills during the procedure.

Fear of death is interestingly one of the least dreaded factors to the patients (22%). Possible reason is because of the strong religious basis on which our society is built. In an older study that discussed about patients fears from general anaesthesia, death was one of the top fears.^[2] Those studies also concluded that gender and age also influenced patients' fear in most individuals. Females were also found to be more afraid and anxious than males. A cause for this may be because of the prejudice placed on men to show less susceptibility and appear strong emotionally. Individuals who were above 45 years old also say that they experience more anxiety towards anaesthesia. No rational can be thought behind why in our study young patients are less afraid of anaesthesia. It may be due to young individuals are more risk taking or may not have responsibilities making them aware of un-fortunate effects.

Some factors don't seem to have a significant effect on individuals fears like the education level, and other previous experiences of anaesthesia. Also, patients with history of past anaesthesia and patients who did not have experience of being anaesthetised have similar overall fears from anaesthesia. May be because they did not get the chance to be reassured by the doctors in their previous surgeries.

The main result of this study is that a quite a lot of patients are encountering preoperative fear and anxiety. Anxiety and fear are related to many problems that might affect the patient cancelling the surgical procedure, it might affect the efficacy of the drugs, or it might complicate the surgery itself. This requires higher dosing of medication.^[13,14] Interestingly, individuals who experience preoperative anxiety and fear have postop nausea, vomiting, and pain at a much greater degree.^[15,16] and they also recover from anaesthesia in a more prolonged time than patients who had less anxiety, which may be due to use of medication at a higher dose.^[17]

V. Conclusion

It is normal to experience anxiety and fear before any surgery. We expand more on the causes of fears that patients have. Females, especially those older than 45 years, are more afraid of undergoing anaesthesia. If this anxiety is not comforted and managed prior to the surgery, it can lead to several tricky situations. We suggest adequate counselling patients who exhibit unwarranted anxiety towards anaesthesia during the pre-anaesthetic check-up and adequate dosing of anti-anxiety drugs prior to the procedure, which would help in building a good bond between the patient and the anaesthesiologist will relieve patients from anxiety and ease their fears. Patients should always be given enough encouragement to question every step and doctors should be prompt in assisting them in any way possible.

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