



A STUDY TO ASSESS DIFFERENCE IN PREOPERATIVE ANXIETY AMONG PATIENTS WHO GET PAC FITNESS IN FIRST VISIT COMPARE TO SECOND VISIT IN TERTIARY CARE HOSPITAL : A CROSS SECTIONAL STUDY.

Anaesthesiology

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ABSTRACT

AIMS: To assess the differences in preoperative anxiety among patients who get PAC fitness in first visit compared to second visit. **MATERIAL AND METHODS:** A cross sectional study, 60 patients of ASA grade I or II aged between 18-65 years were enrolled for study. 30 patients were getting PAC fitness in 1st visit (Cat 1), 30 patients were getting PAC fitness in 2nd visit (Cat 2). Study was done in four steps. 1. Questionnaire filled one by one. 2. Anxiety level grading by VAS scale 3. Patients were examined for PAC 4. Anxiety level reassessed after consultation by anaesthesiologist to know decrease anxiety level. **RESULTS:** Cat 1 (who get PAC fitness in 1st visit) having low level of anxiety then Cat 2 (who get PAC fitness in 2nd visit) assessed to VAS scale and p value is statistically significant (P=0.001). Difference in anxiety before and after counselling by anaesthesiologist was also found statistically significant (P<0.05). **CONCLUSION:** Patients who get PAC fitness in 1st visit have low anxiety compared to patients who get PAC fitness in 2nd visit. Counselling by anaesthesiologist prior to surgery decreases patient's anxiety.

KEYWORDS

Pre Anaesthetic check-up (PAC), Anxiety, and Visual Analogue Scale (VAS).

INTRODUCTION

Pre-operative assessment, post operative care of pain management, critical care and palliative care are the integral part of anaesthesiology.

In adult patients the incidence of preoperative anxiety ranges from 11% to 80% and there is variation among different surgical groups.

Pre-operative Anxiety defined as feelings of tension, apprehension, nervousness, fear and high autonomic activity which affects-

- Cardiovascular system
- Endocrine system
- Central Nervous system
- Prolonged hospitalization
- Increase in Post-operative pain

Preoperative assessment is an essential part for information as:

- Patient's overall health status
- Risk factors for anesthesia
- Counselling of patient
- To obtain informed consent.
- In pre-anesthesia clinic (PAC) patients are prepared both physically and psychologically for surgery and anaesthesia which ensures that they are in most favourable condition to withstand the stress of surgery and anaesthesia.
- In spite of the all efforts of anaesthesiologist, anxiety level are different among patient undergone in various surgical procedure and get PAC fitness in first or second visit.

OBJECTIVES

To assess:

1. Pre-operative anxiety level in patient undergoing surgery and to identify factors associated with it.
2. Difference in preoperative anxiety among patients who get PAC fitness in first visit & second visit.
3. Role of anaesthesiologist in relieving pre-operative anxiety.

MATERIAL & METHOD

- Study design:- A Cross sectional Study.
- Study Area:- The study was conducted at Jhalawar medical College and associated hospitals Jhalawar (Rajasthan)
- Study population:- Adult patients admitted for various elective surgical procedures.
- Study duration: Study was completed in 6 months

Sample size and sampling:- 60 patients were enrolled for study, 30

patients getting PAC fitness in 1st visit (Category I), 30 patients getting PAC fitness in 2nd visit (Category II).

Inclusion criteria

- Age: 18 to 65 years.
- Patients undergoing elective surgery.
- ASA Grade I & II.
- Consenting patients.

Exclusion criteria

- Unable to answer question due to poor mental condition.
- Psychiatric and mentally retarded patients.
- Non-consenting patients.

Data collection tools & technique- Data were collected by using pre-tested questionnaire and VAS scale (0-100 mm, 0 = No anxiety, 100 = Maximum anxiety) for assessing anxiety level.

Study variables

- Dependent variable (Anxiety) and
- Independent Variable (Age, Sex, Education, type of surgery and prior exposure)

Study was done in four steps

1. Questionnaire was filled by one to one interview.
2. Anxiety level grading on VAS scale
3. Patients were examined for PAC.
4. Their anxiety level was reassessed after consultation by anaesthesiologist to know decrease in their anxiety level.

- Data Analysis:- Data were entered in excel and analysed by using appropriate statistical tests (chi square test, t test)
- Ethical consideration:- Ethical permission was taken from the institutional ethics committee and informed consent taken.

RESULTS

Table 1: Distribution of study participants according to Socio demographic Character.

Socio demographic variables	Category I		Category II		Total	
	n=30	%	n=30	%	n=60	%
Mean Age (years)	42.7		48.4		45.5	
Gender						
Male	14	46.7	12	40	26	43.3
Female	16	53.3	18	60	34	56.7

Education						
Illiterate	05	16.7	08	26.7	13	21.7
Literate	25	83.3	22	73.3	47	78.3
ASA status						
I	19	63.3	13	43.3	32	53.3
II	11	36.7	17	56.7	28	46.7
Previous surgery	03	10	02	6.7	05	8.3

Table 1: shows that Mean age is 45.5 years, Male to female ratio 1:1.3. Majority patients are literate and having ASA grade I. Only 8.3% participants have the previous exposure of surgery.

In Category I mean age of patients was 42.7 while in Category II 48.4 which is statistically not significant (P>0.05).

Majority patients (78.3%) were literate having having literacy of primary school to graduate, post graduate.

Table: 2 Distribution of anxiety participant according to prior experience to non experience of surgery.

VAS	Mean	SD	P value
Prior experience to surgery	50.19	4.76	>0.05
Non experience to surgery	53.44	5.18	

Anxiety level is lower in patient having prior experience of surgery (50.19±4.76) compare to non experience (53.44±5.18) but it is not found statistical significant (p >0.05).

Table:3 Distribution of anxiety participant according to pre and post counselling.

VAS	Mean (N 60)	SD	P Value
Pre Counselling	59.23	4.89	<0.05
Post Counselling	40.58	6.12	

Difference in anxiety in all patients (n=60) before anaesthesiologist counselling (59.23±4.89) and after counselling (40.58±6.12) was also found statistical significant (p <0.05). This determines the role of anaesthesiologist in decreasing anxiety before surgery.

Table 4: Distribution of study participants according to VAS score.

VAS	Category I	Category II	t test value	p value
Pre counseling	52.43 ±4.16	73.61 ±5.31	17.15	0.0001
Post counseling	38.54 ±5.12	42.56 ±7.52	2.43	0.018

Table 4 depict that category I (who get PAC in first visit) having low level of anxiety according to VAS scale and it is found statistical significant (p value =0.0001).

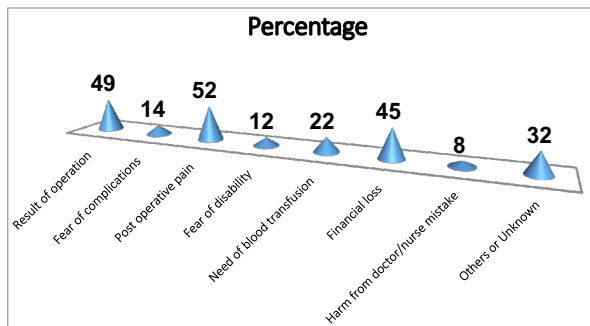


Figure 1. Reasons of anxiety among study participants.

Table 5. Knowledge and perception of study participants about PAC.

Knowledge and perception	Category I		Category II		Total	
	n-30	%	n-30	%	n-60	%
Do you know Purpose of PAC	20	66.66	10	33.34	30	50
What do you expect in PAC?						
Short anesthesia prior to anesthesia	06	20	10	33.34	16	26.66
Medical examination to rule out any major disease	07	23.34	15	50	22	36.66
Do you know anaesthesiologist doing PAC	22	73.33	16	53.34	38	63.33

Do you know if you found PAC unfit the surgery can be delayed?	15	50	10	33.33	25	41.66
Did you do any preparation prior to PAC (investigation reports and old medical records)	22	73.34	10	33.34	32	53.33
Are you fear for anaesthesia or surgery	07	23.3	15	50	22	36.66

DISCUSSION

This is well known that prolonged hospitalization is associated increase in financial burden with pathophysiological changes like cardiovascular system, endocrine system, Central Nervous system and increase in Post-operative pain and anxiety is associated with patients who get delayed PAC fitness. **Kindler CH et al**⁽⁹⁾ study showed that most of the patients awaiting elective surgery experienced high level of pre operative anxiety. So we conducted this study to a difference, in pre operative anxiety among patients who get PAC fitness in first visit compare to second visit.

In past many studies were done to assess patients perceptions for anaesthesia and anaesthesiologists. We conducted this study and found that pre operative anxiety is seen less in patients who get PAC fitness in first visit compared to patients who get fitness in second visit.

In our study we found that there is no significant correlation for PAC fitness among different age and sex in both category but illiterates get delayed PAC fitness as in Cat I & II(16.7%) & (26.7%) respectively than literates as in cat I(83.3%) & II(73.3%) .Anxiety level was lower in patients who had previous exposure to surgeries compare to non-exposed in both groups but not significant (p>0.05). Similar results were found with **Singla D and Mangla M**⁸ that impact of age and sex were not found significant where as education level significantly influenced patient knowledge as compared to illiterate patients. Patients who were educated till primary level had significantly lesser knowledge than graduates and post graduates. While patient who had previously visited PAC clinic, achieved significantly higher anxiety than patients coming for the 1st time (p<0.001).

We found that patients who get PAC fitness in first visit have low level of anxiety (52.43±4.16) than patients who get PAC fitness in second visit (73.61± 5.31). The reason of anxiety in Cat I less because (66.66%) participant know purpose of PAC while in Cat II only (33.33%) and in Cat I around (73%) participant done preparation prior to PAC while in Cat II only (33.33%) done preparation.

In a study of **Yogesh R et al**⁹, the cause of delay & fitness were fresh lab tests in 27% patients & physician reference previous reports & investigations not brought 41% and only 32% patients knew purpose of PAC. **Gupta A and Gupta N**⁸ also found that only 40% knew purpose of PAC and on an average, the patients had to visit more than once to obtain fitness for anaesthesia because of ordering unnecessary investigations and lack of coordination between surgeon and anaesthetist. **Maranets I & Kain ZN**¹ found in study that increased anxiety needed more anaesthetic drug.

In our study difference in anxiety in all patients before anaesthesiologist counselling (59.23±4.89) and after counselling (40.58±6.12) was also found statistically significant (P <0.05), which determine role of anaesthesiologist in decreasing anxiety before surgery.

In a study of conducted by **Deepa J et al**⁴ stated that detailed preoperative visit is definitively one of the way of improving patient's perception about anaesthesia. **Punjabi G et al**⁷ found that after pre anaesthetic assessment, decreased anxiety the pre PAC VAS (55.50 ± 23.46) was reduced to 21.50 ± 12.87 with P-value (0.0001) which was statistically very significant.

In a study of **Bondy et al**² conducted in United States found that anxiety in the preoperative period was reduced by information about procedure. **Kiyohra et al**⁵ showed that patient who have information regarding the surgical procedure have lower anxiety level.

CONCLUSION

1. Participants Anxiety is significantly associated with participant's age, educational status and type of surgery.

2. Participant gets PAC fitness in first visit having low anxiety as compared to participants who get PAC fitness in second visit.
3. Counselling by anesthesiologist prior to surgery decrease participant anxiety.

REFERENCES

1. Maranets I & Kain ZN: Preoperative anxiety and intraoperative anesthetic requirements. *Anesth Analg*; 1999; 89(6):1346-51. [PubMed]
2. Bondy LR, Sims N, Schroeder DR: The effect of anaesthetic patient education on pre-operative patient anxiety. *Reg Anaesth pain Med* 1999; 24:158-164.
3. Kindler CH, Harms C, Amsler F, Ihde-Scholl T, Scheidegger D: The Visual Analogue Scale allows effective measurement of preoperative anxiety and detection of patient's anaesthetic concerns. *Anaesth Analg*; 2000; 90:706-12.
4. Deepa J, Shinde VS, Patil RD, Naik LD: A study of patients perception about knowledge of Anaesthesia & Anaesthesiologist. *Ind J Anaesth*; 2002; 46 (1);26-30.
5. Kiyohara L Y, Kayano LK ,Wliveira LM, Yamamoto MU, Inagaki MM, Ogawa NY: Surgery information reduces anxiety in the pre operative period. *Rev Hosp Clin Fac Med S Paula* 2004; 59, 51-56
6. Gupta A, Gupta N: Patients experiences and satisfaction with preanesthesia services: A prospective audit. *J Anesth Clin Pharmacol*; 2011; 27, (4) 511-5.
7. Punjabi G, Urmila K, Govind P: Effect of preanaesthetic assessment in outpatient consultation clinic in decreasing anxiety of patient. *Journal of dental and medical science (IOSR-JDMR)*. 2014, vol 13, (7) ver 4 74-77.
8. Singla D, Mangla M: Patients knowledge and perception of preanaesthesia check-up in rural India. *Anaesth Essays Res* 2015; 9 (3):331-6.
9. Yogesh R , Priti D, Priyanka P, Supriya D, Adarsh K, Suyog B, Sagar Y, Shrinath O: Study of patients satisfaction in Anaesthesia OPD of tertiary care hospital. 2015, 14 (3) 66-76.