

EFFECT OF EDUCATION LEVEL AND PREVIOUS ANESTHESIA EXPOSURE ON KNOWLEDGE AND PERCEPTION ABOUT ANAESTHESIA AND ANAESTHESIOLOGIST

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Abstract

Introduction: To assess the effect of education level and previous anaesthesia exposure on knowledge of anaesthesia and role of anaesthesiologist

Method: 112 patients above the age of 18 years undergoing any elective surgery were enrolled in the study. They were asked to fill out a questionnaire containing questions related to anaesthesia, anaesthesiologists and their concerns and perceptions about risks related to anaesthesia. Each question had multiple choices. The patients were divided into two groups of 56 each i.e. Group A consisted of patients with previous anaesthesia exposure and Group B consisted of patients without previous anaesthesia exposure and data was compared.

Results: Out of all patients who had only a secondary school education or lower, only **38%** had knowledge about anaesthesia and were able to correctly answer questions about role of anaesthesiologist and why preanaesthesia checkup was necessary, whereas **62%** did not know importance of preanaesthesia checkup and role of anaesthesiologist. In patients who had graduate or post graduate level of education, **60%** were able to correctly answer questions regarding importance of preanaesthesia checkup and role of anaesthesiologist, whereas **40%** answered incorrectly. Of all patients in Group A (Previous anaesthesia exposure), **71%** of patients were able to correctly answer questions relating to importance of Preanaesthesia checkup and role of anaesthesiologist, whereas **29%** answered incorrectly. In Group B (No previous anaesthesia exposure), only **20%** were able to correctly answer

questions relating to importance of preanaestheticcheckup and role of anaesthesiologist, whereas **80%** answered incorrectly.

Conclusion: It can be concluded that patients who had a higher level of education and/or had previous anaesthesia exposure were more aware of the importance of preanaestheticcheckup and role of anaesthesiologist.

Introduction

Anaesthesia is one of the most important components in ensuring that a patient undergoes procedures comfortably. The procedures may range from complex surgeries to routine investigations like MRI.

Anaesthesia as a specialty has evolved into a branch which requires complete care of the patient in the perioperative and periprocedural period, and not just during the procedure.^(1,3,4,7) As such, the anaesthesia specialist must be acquainted with both the skills required for adequate anaesthesia, and the patient themselves. It is required for an anaesthesiologist to interact with patients and explain to them the anaesthetic technique as well as the implications involved.^(2,4,7)

Patient awareness of anaesthesia and anaesthetic techniques is very poor, to the point that many people do not realize that an anaesthesiologist is a separately qualified medical physician.^(1,4,5,6) Patient involvement and awareness of anaesthesia and anaesthetic techniques of utmost importance in ensuring smooth administration of anaesthesia.⁽⁵⁾

Many factors may affect the patient's knowledge of anaesthesia. One of the most important factors may be the education level of the patient.^(1,2) Another factor involved in awareness of anaesthesia is patient's previous exposure to anaesthesia.⁽⁵⁾

This was a questionnaire based study designed to evaluate the effect of education level and any previous anaesthesia exposure on knowledge and perception of anaesthesia and role of anaesthesiologist.

Materials and Method

After obtaining permission from the institutional ethics committee, patients over the age of 18 years undergoing any elective surgery were enrolled in the study. Patients were explained the details of the study and consent was taken.

No. of Cases – 112 patients were divided into two groups of 56 each.

- Group A – patients with previous anaesthesia exposure
- Group B – patients without previous anaesthesia exposure

Sample Size Calculation – Sample size was calculated using Win PEPI software with a confidence interval of 5% and power study of 80%.

Patients with altered mental status, those who were unable to hear or speak, those who were working in a hospital attached to OT, ICU, whose family members were anaesthesiologists, and patients who refused to take part in the study were excluded from the study.

The patients were asked to fill out a questionnaire containing questions that were relevant to the study. It contained questions related to anaesthesia, anaesthesiologists, and their concerns and perceptions about risks related to anaesthesia and preanaesthesia checkup.

Each question had multiple possible choices out of which the patients were asked to choose one. For patients unable to read or understand the questions, investigators were available to them to assist them in clarifying their doubts.

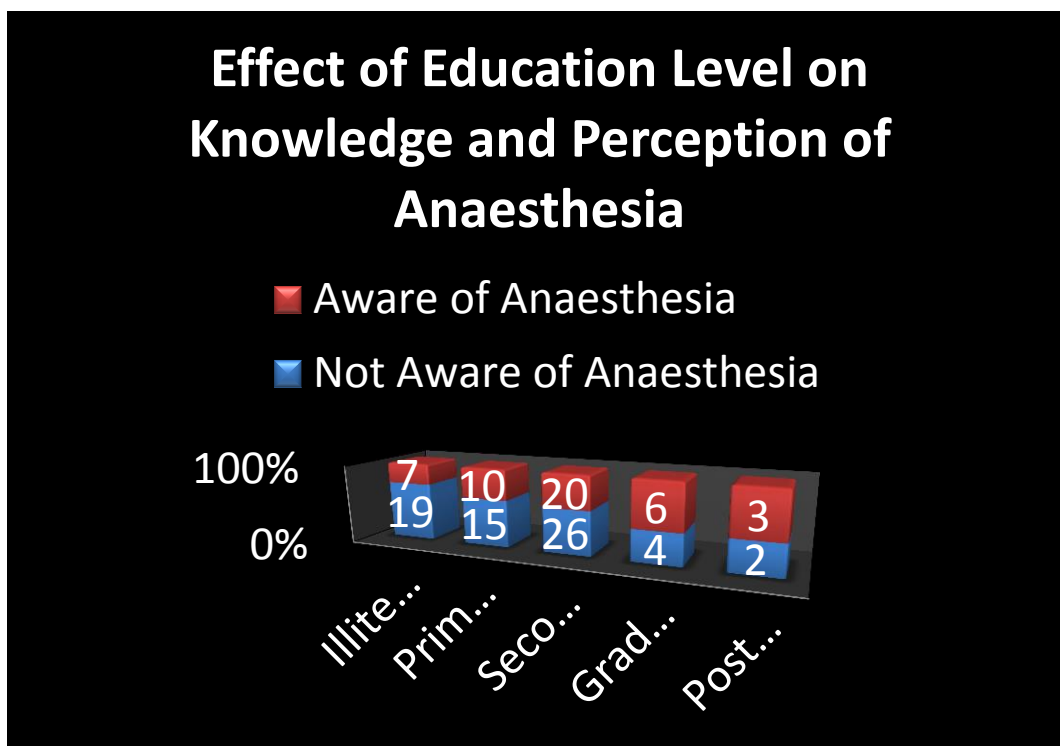
Question	Choices/Answer
Demographic Data	
Age	
Gender	Male Female
Educational Status	Illiterate Primary School Secondary School Graduate Post Graduate
Awareness of Preanaesthesia Checkup	
Have you ever been to Preanaesthesia Clinic previously?	Yes No
What is done in Preanaesthesia Clinic?	General assessment of patient done before anaesthesia Some test to be performed to assess fitness Assessment, optimization and risk stratification before surgery I don't know Other
Who can perform anaesthesia checkup?	Nurse/technician in PAC clinic Doctor sitting in PAC clinic Don't know Other
What is the importance of preanaesthesia checkup before surgery?	Reduces the risk of anaesthesia and surgery Required to get date for surgery Legal documentation\ Don't know Other
If there is a pre-existing medical condition, does it need to be optimized before surgery?	Yes No Not required if unrelated to surgical condition Don't know Other
When should you discuss your fears/queries regarding anaesthesia?	In PAC clinic In ward with surgeon

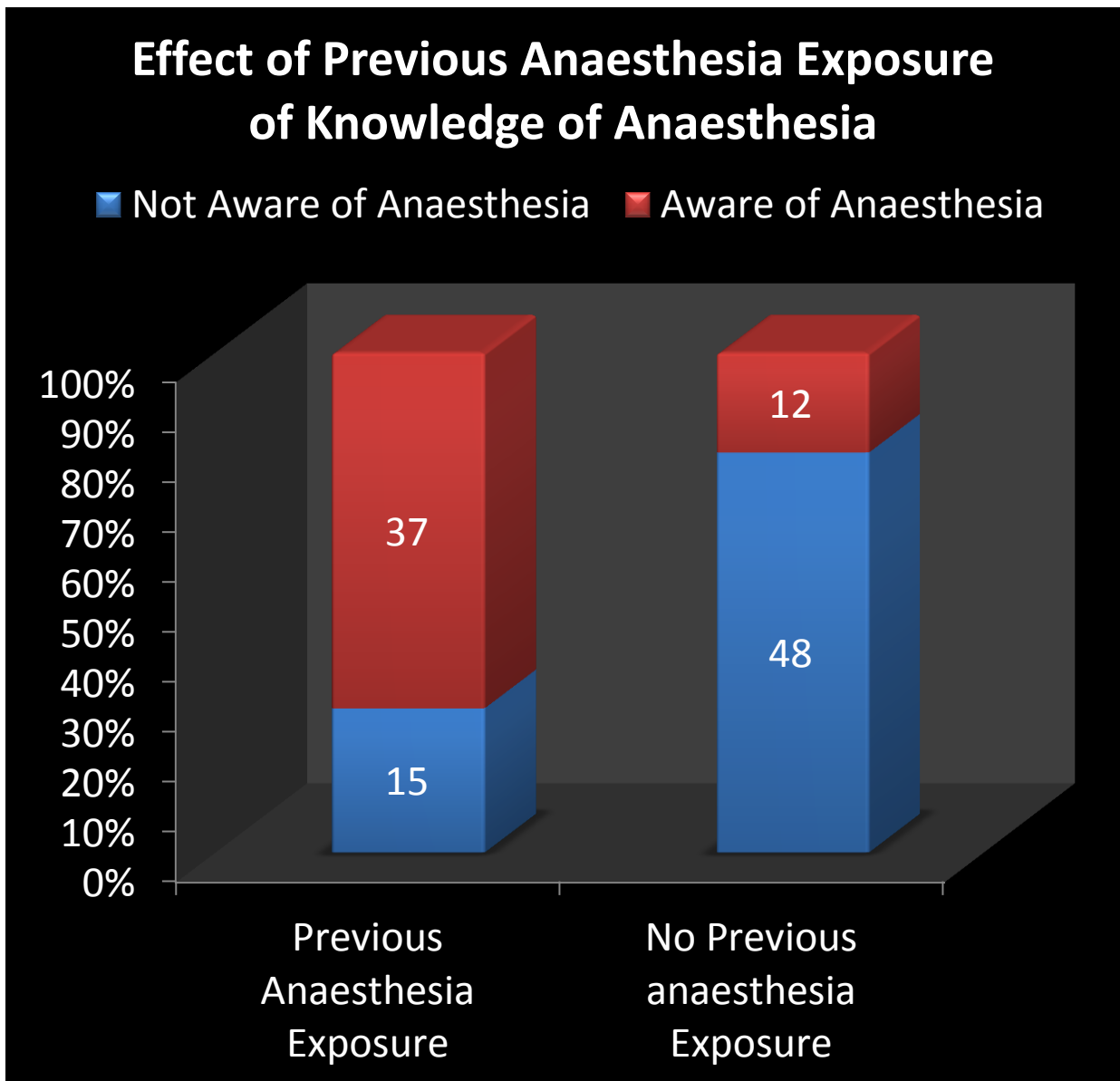
	In operation theatre Don't know Other
Do you follow any advice you will get in PAC clinic?	Yes, it is for my own good Yes, till surgery is performed Only if surgeon says so Don't know Other
Awareness of Anaesthesia and Role of Anaesthesiologist	
Choice of anaesthetic technique depends on	Wish and experience of anaesthesiologist Patient's wish Type of procedure Don't know Other
Knowledge of types of anaesthesia	General Regional Local All Don't know Other
Source of information regarding anaesthesia	Hearsay Other doctor Read somewhere Previous experience Other
Who makes unconscious at time of surgery?	Surgeon Surgeon's assistant Specialized doctor(Anaesthesiologist) Nurse Other Don't know
Role of anaesthesiologist in OT	Put patient to sleep Keep patient alive during surgery Treat medical problems of patients Help the surgeon Monitor vitals during surgery All of the above Don't know Other

RESULTS

- After reviewing the answers submitted by the patients to the questionnaire, the results were reviewed.

- Out of all patients who had only a secondary school education or lower, only **38%** had knowledge about anaesthesia and were able to correctly answer questions about role of anaesthesiologist and why preanaestheticcheckup was necessary, whereas **62%** did not know importance of preanaestheticcheckup and role of anaesthesiologist.
- However, in patients who had graduate or post graduate level of education, **60%** were able to correctly answer questions regarding importance of preanaestheticcheckup and role of anaesthesiologist, whereas **40%** answered incorrectly.
- Similarly, of all patients in Group A (Previous anaesthesia exposure), **71%** of patients were able to correctly answer questions relating to importance of Preanaestheticcheckup and role of anaesthesiologist, whereas **29%** answered incorrectly.
- However, in Group B (No previous anaesthesia exposure), only **20%** were able to correctly answer questions relating to importance of preanaestheticcheckup and role of anaesthesiologist, whereas **80%** answered incorrectly.
- So we came to the result that patients who had a higher level of education and/or had previous anaesthesia exposure were more aware of the importance of preanaestheticcheckup and role of anaesthesiologist.





Discussion

The work of anaesthesiologist has crossed the boundary of operation theatre and renders services as a leader in the ICU, resuscitation, pain management, trauma care etc.^(1,3,4,8) With the advancement of anaesthesia even major, complex and advanced surgeries has become a reality.^(3,6) The American Society of Anaesthesiologist (ASA) has supported a strong campaign to improve the public perception and understanding of Anaesthesiologist role. Every year anaesthesiologist also celebrates 16th October as world anaesthesia day. India is also celebrating it with a motto to give more and more knowledge and awareness to the public. Despite all these, anaesthesia is hardly known by the general population.^(1,3,6,8)

The profession of anaesthesiology has long been suffering from low appraisal.^(4,9) Though many reasons can be attributed to this, one of the major reasons is that the patient first goes to a surgeon for their disease and is later referred to an anaesthesiologist.^(1,3) Another reason may be that they usually do not meet the anaesthesiologist when being admitted in the hospital. There is a considerable confusion in the public mind about what the anaesthesiologists actually do during the surgery and what their other responsibilities are. Information in the media regarding the specialty, besides being insufficient, emphasizes complications and legal repercussions associated with the practice of anaesthesia, creating confusion and anxiety when individuals are faced with the possibility of a surgical intervention.^(1,3)

Despite the fact that most of the ICUs in India is managed by anaesthesiologists, none of other patients were aware about importance of anaesthesiologists in specialized intravenous access, resuscitation, laboranalgesia, ICU care.^(2,4,5) The reasons of such low level of knowledge and awareness are that anaesthesiologists spend very minimal time with the patients before surgery. Even the anaesthesiologists who do PAEC and the ones who actually perform anaesthesia are different, most of the times in medical colleges and institutions.^(1,2,3,7) There is a huge communication gap between anaesthesiologists and patients. Many a time anaesthesiologists even do not introduce themselves, do not explain the procedure properly and even do not take separate consent.^(2,5,6) Therefore, it is of paramount importance that anaesthesiologists take the responsibility to give information about anaesthesia, possible complications and obtain separate anaesthesia consent.^(2,4,7,10)

CONCLUSION

Patients have inadequate knowledge about preanesthesia assessment, anaesthetic procedure and risks, and role of anaesthesiologist, and its role in improving the outcome of surgery.

Hence, efforts should be made by not only anesthesiologists but also by surgeons involved in patient care to emphasize the importance of PAC clinic, to decrease peri-operative morbidity and mortality.

References

1. Prakash A, Yadav A, Karim HMR, Narayan AK, Kumar A. Effect of education level and previous anaesthesia exposure on knowledge and perception about anaesthesia

- and anesthesiologist : A questionnaire based observational study. *Indian journal of clinical Anaesthesia*, Jan - Mar 2018;5(1):17-24
2. Singla D, Mangla M. patients knowledge and perception of pre anaesthesia checkup up in rural India. *Anesth Essays Res* 2015;9:331-6
 3. Acosta-Martinez J, Guerrero-Rodriguez R, Lopez-Herrera-Rodriguez D, Sanchez-Carrilo F. The anesthetist's role from the patient's perspective. *Rev ColombAnesthesiol* 2016;44:121-7
 4. Prasad CGS, Suresh G. A survey on public awareness about the role of anesthesiologists. *Ain-Shams J Anesthesiol* 2014;7:456-9
 5. Erden A, Tutuncu R. Patients' knowledge and attitudes about the role of anesthesiologists in a military Hospital. *J ClinExp Invest* 2012;3:313-7.
 6. Naod B, Admasu W, Ahmed Y. Patients' Knowledge and Attitude towards Anesthesia in TikurAnbesa Specialized Hospital. *Int J Anesth Res* 2016;4:229-35.
 7. Leite F, Silva LM, Biancolin SE, Dias A, Castiglia YMM. Patient perceptions about anesthesia and anesthesiologists before and after surgical procedures. *Sao Paulo Med J* 2011;129:224-9.
 8. Eyelade OR, Akinyemi JO, Adewole IF. Patients' perception and knowledge of anesthesia and anesthetists - a questionnaire survey. *S Afr J AnaesthesiolAnalg* 2010;16:28-31.
 9. Gottschalk A, Seelen S, Tivey S, Gottschalk A, Rich G. What do patients know about anesthesiologists? Results of a comparative survey in an U.S., Australian, and German university hospital. *J ClinAnesth* 2013;25:85-91.
 10. Oliveira KF, Clivatti J, Munechika M, Falcao LFR. What do patients know about the work of Anesthesiologists? *Rev Bras Anesthesiol* 2011;61:720-7