

RESEARCH ARTICLE

ANAESTHESIOLOGY AS A CAREER CHOICE AMONGST INTERN DOCTORS AT A TERTIARY CARE HOSPITAL - QUESTIONNAIRE BASED STUDY

Dr. Richa Gupta, Dr. Priyanka Shah, Dr. Bharti Rajani, Dr. Akash Patel, Dr. Karan Soria and Dr. Shravan Rajani

Manuscript Info	Abstract
Manuscript History	Background: Selection of speciality branch for Intern is becoming a
Received: 24 August 2024	challenge nowadays. Anaesthesia is one of the most sought after branch
Final Accepted: 28 September 2024 Published: October 2024	in developed countries while it is not much preferred in developing countries like ours.
V	Aims:1) To assess awareness and attitude towards anaesthesiology as
<i>Key words:-</i> Intern Doctors, Anaesthesia, Career	the choice of post graduate course amongst intern doctors 2) To assess
Choice	the factors which influence in making such choice.
	Method: A cross sectional study, in which hospital-based questionnaire will be conducted in GMERS Medical College and hospital, Gandhinagar. Data will be collected using interviewer-administered validated questionnaire. After completion of survey, data collected will
	be analysed. Results: In our study total 126 intern doctors, Regarding
	the preferences of speciality branch for post graduate course we came
	to know that general medicine was the first preferred branch for the
	majority (58.86%) interns and anaesthesia was in second and third
	choice for many students (18%), With very less number of interns to
	choose anaesthesia, the reasons for not choosing anaesthesia was that it
	is an emergency and risky branch and second major reason was lack of
	recognition to the patients.Increase duration of anaesthesia posting during UG course will help to create awareness about anaesthesia as
	per 51% intern doctors.
	Conclusion: To increase interest, we as an anaesthetist should increase
	the duration of posting during internship and should increase vocational
	interactions regarding challenge and importance of anaesthesia during
	peri-operative period.
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Introduction:-	
Anesthesia has made possible for surg	ery to be conducted humanely and empathically. Attempts to anaesthetize the

Anesthesia has made possible for surgery to be conducted humanely and empathically. Attempts to anaesthetize the patients have been experimented since about 4000 BC. But it was only after first public demonstration of ether on 16th October 1846 by WTG Mortan that anesthesia has been recognized as a separate clinical branch, and since then it has grown exponentially. It includes ICU management, chronic pain management, robotics, palliative medicine and of course traditional subspecialties like cardiac, neuro, pediatric, bariatric, transplant and regional anesthesia practices. There is shortage of anesthetist in our health care system. With the reported membership of ISA 25000, and Indian population around 140 crores there is 1 anesthetist per 56000 persons. Along with this most of them are working and set up in cities with skewed up ratio in rural areas. There is no counselling offered to guide the MBBS

graduates in our medical institution. Preference of speciality is usually dictated by marks in the post graduate entrance exam and the associated 'prestige' of the speciality, with anesthesia being last choice in majority of cases. (2) During the mandatory 1 year internship training of graduate doctors, they are exposed to all clinical specialities and this greatly influences there choice of career. Apart from this, occupation of parents, gender, work life balance, earning potential, diversity of clinical spectrum and lastly knowledge and awareness about the post graduate courses and practice hours guides the choice of career. MBBS graduates are exposed to anesthesia practice only during their 15 days compulsory rotation and when they are working in OT posted in surgical branches. This limited exposure of the subject fails to ignite the interest in anesthesia in future post-graduates. The choices of speciality by the graduating students have an impact on the health care system of our country. Anesthesia is one of the most sought-after branches in developed countries, while it is not much preferred in developing countries like ours. (5) Studying factors which influence such choices will help to promote anesthesia and bring it at par with other disciplines of medical sciences. This study is aimed to assess awareness and attitude towards anesthesiology as the choice of post graduate course amongst intern doctors and the factors which influence in making such choice.

Materials and Methods:-

A hospital based cross-sectional study was conducted in department of anaesthesia of GMERS Medical college and hospital, Gandhinagar on intern doctors of GMERS Medical College and civil hospital, Gandhinagar batch 2023 March - 2024 March who have completed their anaesthesia posting. After obtaining approval from hospital ethical committee,data was collected using interviewer-administered pretested and validated questionnaire. Interns were given brief talk on the study. After confirming their willingness to take part in the questionnaire, participants were explained about the pattern of questions. Questionnaire were available in English, and they were asked to tick the answer of their choice. Any doubt regarding the questionnaire were thoroughly explained and clarified. Survey was conducted by the principal investigator and co-investigator and informed consent was taken. Baseline demographic characteristics including age, gender, occupation of parents, residence was recorded. Information was obtained on the participant's awareness and attitude towards anaesthesia, and anaesthesia as the choice of post graduate course amongst intern doctors and to assess the factors which influenced in making such choice.

The questionnaire was designed in three parts. The first part included demographic details like their personal and professional details along with their parent's profession details. This part focused on awareness about anaesthesia a postgraduate and super speciality subject amongst intern doctors. The second part of the questionnaire was about to find the preferred speciality following their graduation. Top three preferred choice was asked and common factors that influence the students in making career choice. This part focused on the attitude towards anaesthesia as a clinical branch. The third part was regarding perception of anaesthesia before and after attending internship posting and methods, they thought were relevant to ignite and improve interest and awareness for anaesthesia.

After collecting data from questionnaire, it was manually entered into the computer for statistical analysis. Data analysis was performed using diagrams.

Result:-

In our study total 126 intern doctors had participated. Among them 66 interndoctors were male, and rest were female intern doctors. Mean age of the participants was 23 years. They were asked about the profession of their parents to assess whether profession of parents influenced their choice of post graduate subject. Out of 126 intern doctors, only 2 interns had their mother working as health professional and that too in non-clinical branch, while 9 interns had their father working as a heath care professional with 4 student's father in clinical branch and 5 intern's fathers were in non-clinical branch.

The first part of questionnaire assessed the awareness of anaesthesia as a postgraduate and super speciality subject amongst intern doctors. They were asked regarding awareness of role of anaesthetist in patient management before internship posting. It was seen that more than 60 Intern doctors were aware of the role of anaesthetist in clinical practice, out of which only 42(34.08%) intern doctors were aware of role of anaesthetist outside operation theatre, such as in ICU setup, MRI sedation, pain opds, emergency and trauma centres amongst many others. It was also seen that 33(21.89%) intern doctors were aware of the various super specialization and fellowship courses offered after postgraduate course of anaesthesia.

The second part of the questionnaire assessed the perception of anaesthesia as a speciality amongst intern doctors and during their mandatory 15 day posting under the department. It was seen that 87 interns (69.04%) found that anaesthesia is challenging and interesting branch while 16.66% (21 students) found it is too stressful and only 12 interns (9.52%) had no idea about anaesthesia (**fig.3**).When asked about anaesthesia posting in internship 87 (69.12%) intern doctors found it challenging and interesting while 12% intern doctors have found it too stressful and when asked about measures which needed to be taken to increase the awareness of anaesthesia as a subject amongst undergraduate students and intern doctors it was seen that, increase in duration of anaesthesia posting during undergraduate course was preferred by 51% intern doctors and 35% interns believed that anaesthesia should be a separate subject like other subjects in UG curriculum, while 80 intern doctors chose to increase duration of mandatory internship posting to more than 15 days (**fig.4**).

Third part of questionnaire was regarding choice of speciality branch as a career after MBBS course and interns were asked the preferences of speciality branch for selection for post graduate course and we came to know that general medicine was the first preferred branch for the majority (58.86%) of the intern doctors and anaesthesia was in second and third choice rather than first choice for many students (18 interns)(**fig.1**). In our study, we have studied the factors affecting anaesthesia as a career and 47 interns (37.30%) chose anaesthesia because they were not getting any other speciality and 27.77% (35 interns) found anaesthesia is challenging and life-saving branch so they chose it and very less interns had other factors like anticipated good income, good academic opportunity with less investment in future etc. (**fig.2**)Amongst the factors for not choosing anaesthesia, majority (82) intern doctors found it emergency and risky branch while 38 interns (30.15%) found it too stressful.

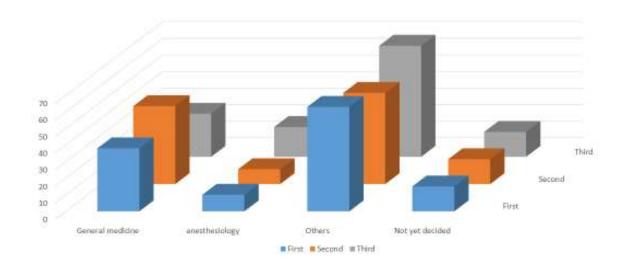
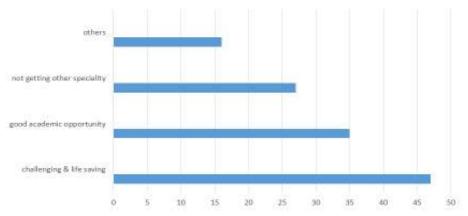
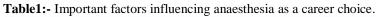


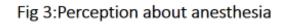
Fig.1:Preferences of speciality branches by Intern doctors

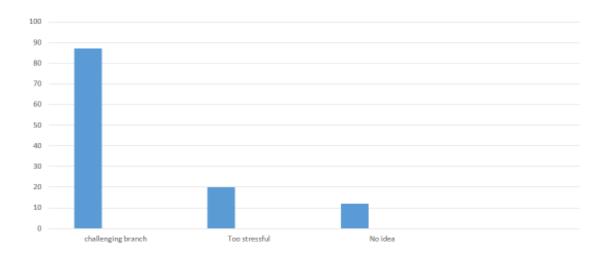
Fig.2: Factors affecting to choose anesthesia as a career?





Anaestheia speciality	frequency
challenging & 3fe saving	47
good academic opportunity	35
	27
not getting other speciality	27
others	16





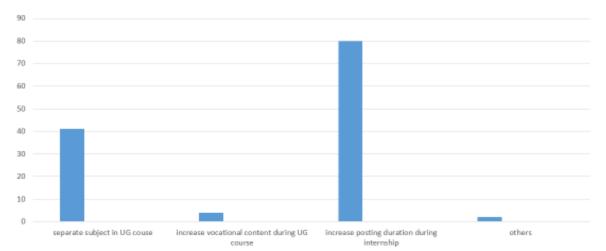


Fig.4: What to do create awareness about anaesthesia among intern doctors?

Discussion:-

Intern doctors are qualified graduated doctors working in hospital in the first year of their practical training. They work under supervision of licenced doctors specialized in their respective medical degree to gain hands on experience in patient care. Role of anaesthetist is of utmost importance in clinical practice. From dealing patients in operation theatre to ICU care, and post op and pre op management to various other modalities, anaesthesia has been established as a critical, versatile and one of the most sought-after specialities for clinical practise. Popularity of this branch has gained momentum primarily from a decade or two as it was deemed unchallenging and not involving patient directly. But this notion is changing gradually, and now anaesthetist being one of the most in demand profession with good income.

Unlike Alkhilaiwi RM et al, we have not found any correlation between the profession of parents and selection of speciality branch because in our study only 4 intern's father was doctors rest all were from other profession. Gender discrepancy is seen in our study because in our study more male interns had participated than female interns and also the preferred speciality branch was general medicine unlike the study done by Gupta et al(3), in which male interns preferred surgical branch like orthopaedics as speciality branch. а In our study majority of students, 60%, had knowledge about the conventional practise of anaesthesia like the classic role of providing the best possible pre-operative optimization of the patients, intraoperative and post-operative critical care and pain management, decreasing perioperative morbidity and mortality, while some interns were also knowing that Anaesthesiologists play a very important role in saving lives of critically ill patients by providing BLS care, ACLS care, managing critical patients in ICU. This awareness might be due the compulsory 15 days rotation training in anaesthesia. Only 22% interns were aware of the anaesthesiology is a branch comprising of different entities like critical care management and pain management, bariatric, pediatric, neuroanaesthesia, cardiac anaesthediaetc. This lack of knowledge reflects the discussion and engagement of intern doctors with the seniors under which they are posted in anaesthesia training. Various lectures of group discussions should be encouraged to arouse the interest of budding future doctors.

Anaesthesia as a branch and compulsory anaesthesia rotation of 15 days was perceived as interesting and challenging by 69% interns and 51% interns wanted to increase the duration of anaesthesia posting to more than 15 days to gain more exposure and knowledge about this branch. Fifteen days duration is actually a very small time to gain insight into the beauty of anaesthesia as a profession, as anaesthesia covers a very small, almost negligible part of their curriculum during their undergraduate course. Increasing the duration of posting to more than 15 days might give them the opportunity to learn more about the subject and gain interest in it.

In our study we found that the most preferred specialty was general medicine followed by general surgery and orthopaedics. This was contrary to the many other studies which showed general surgery was the most preferred speciality ^{(2) (5) (9)}. In our study, we found that there was an association between gender and the choice of future

specialty. Among 66 males, 16 students (24.24%) choose general medicine as career choice whereas only 5 females (7.57%) choose general medicine as a first career choice. Among 126 students only 11(8.73%) choose anaesthesia as their first preferred specialty choice. Number of students choosing anaesthesia as a second and third preference was more. This was consistent with studies conducted by Khan et al ⁽⁷⁾. The most common reason behind choosing this speciality among intern doctors was that they find this branch challenging and interesting and this finding remain consistent like Khan et al⁽⁹⁾ and Lohit et al⁽⁴⁾ but was contrast with study conducted by Dikici et al⁽¹¹⁾. The second factor influencing was not getting any other speciality unlike the study conducted by Lohit⁽⁴⁾ in which the second affecting factor was lack of recognition by patients.

On questioning the reason for not choosing anaesthesia, we found that the most common reason was they found anaesthesia is an emergency and risky branch followed by lack of recognition by patients. This may be because, in developing countries like ours, there is lack of awareness among patients about anaesthesia, whereas in developed countries the general public is more aware of anaesthesia to create interest regarding the specialty and towards anaesthesiologists. This was consistent with findings in study conducted by Khan et al⁽⁹⁾but was in contrast to the study conducted by Dikiciet al⁽¹¹⁾.

In our study as per 51% intern doctors, to increase interest in anaesthesia we should increase the anaesthesia posting duration of posting during internship and should increase vocational interactions regarding challenge and importance of anaesthesia during peri-operative period so that students can know more about anaesthesia though it is a dependant branch but it is very challenging and emerging specialty of clinical practise.

Limitations:-

The limitation of our study was that it was a single institute study. Compulsory rotatory internship may change the preferences of the students, and this may not be the exact representation of the career choice that will be made following their graduation due to various conditions.

Conclusion:-

In our study regarding awareness about anaesthesiology among intern doctors, we have found that the most preferred career choice was general medicine and the most common reason behind making the career choice was personal interest. Anaesthesiologists need to emphasise on the positive aspects and scope of the speciality outside the operating room like trauma, critical care (BLS & ACLS) and pain management apart from the traditional subspecialties like cardiac anaesthesia, neuro anaesthesia, obstetric anaesthesia, pediatric anaesthesia, bariatric anaesthesia and regional anaesthesia to create interest regarding the specialty. To increase interest, we as an anaesthetist should increase the duration of posting during internship and should increase vocational interactions regarding challenge and importance of anaesthesia during peri-operative period.