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RESEARCH ARTICLE

AWARENESS OF MEDICAL RESEARCH AMONG RESIDENT DOCTORS OF A TERTIARY CARE HOSPITAL OF KOLKATA.

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Abstract

Introduction: The rapidly evolving medical science of today necessitates that physicians & surgeons keep abreast with the latest developments. **Aims and Objectives:** 1.How many are aware about medical research in Kolkata? 2. Which specialty fares better in knowing what research is all about? 3. Does work experience post MBBS make people more interested in doing research studies? **Materials and methods:** The study was a prospective, questionnaire based observational study. This information was obtained through a descriptive correlation analytical survey design. The sample size required for this survey was calculated to be 132. All resident doctors of acute medical and surgical disciplines were included in the study. A questionnaire had been provided to the doctors at various time intervals.. **Results:** Most of the population was aged between 31-40 years (52.5%). In the distributed questions regarding assessment of knowledge about medical research among study subject maximum correct response was obtained 109 (90.8%) and minimum 97 (80.8%) and rest values where in between 97-109 obtained. Institutional reasons, regarding medical research was 46 (38.3%) in lack of interest by faculty, 33(27.5%) lack of time, 23 (19.2%) lack of research curriculum, 11(9.2) inadequate mentors/ assistants, 7 (5.8%) inadequate financial support. **Discussion:** Most of the residents showed a positive attitude towards awareness research. But disparity was found in regards to their attitude & actual practice. The major reason cited for poor research activity in our study are lack of interest, learning of PG subject takes lot of time, inadequate facilities for research involved in personal reasons & lack of interest by faculty, lack of time, lack of research curriculum involved in institutional reasons. **Conclusion:** We found that resident doctors have lack of interest as learning of parent subject takes a lot of time. Inadequate facilities for research involved in personal reasons & lack of interest by faculty, lack of time, lack of research curriculum involved in institutional reasons. There is need of experienced mentors to provide guidance on the clinical research process.

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Introduction:-

The rapidly evolving medical science of today necessitates that physicians & surgeons keep abreast with the latest developments. Every doctor should strive to contribute to the generation of evidence by conducting research. For carrying out a research study awareness about the medical research and the adequate knowledge, right attitude are crucial. The benefits of resident research are manifold. It helps promote evidence based medicine and quality patient care, provide skill for lifelong learning, enhance resident's analytic skills and develop critical thinking. Surveys of program directors and residents revel seven barriers to research during residency: insufficient resident interest, limited faculty time, lack of resident research skills, absence of a research curriculum and inadequate funding. When we consider the medical research scenario in India, we find the quality research in is limited, number of research articles published in this field are few. In order to encourage research orientation in resident doctors, currently MCI has made it mandatory to present one poster, to read one paper at a national/state conference and to present one research paper which should be published /accepted for publication/sent for publication during the period of his post graduate studies. As per the data available till 2008, India holds the twelfth rank among the productive countries in medicine research consisting of 65,745 articles with a global publication share of 1.59%. a study has shown that there are around100,000 under graduate medical students in India, out of whom just 0.9% of the students had shown interest in research through various research programs.

Aims and Objectives:

1. How many are aware about medical research in Kolkata?
2. Which specialty fares better in knowing what research is all about?
3. Does work experience post MBBS make people more interested in doing research studies?

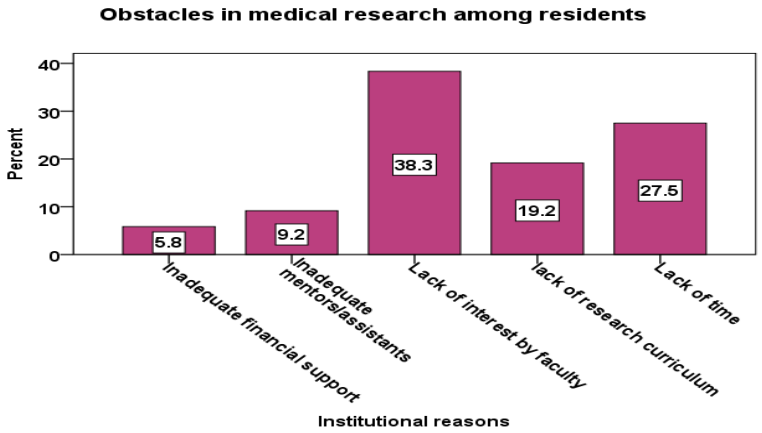
Materials And Methods:-

The study was a prospective, questionnaire based observational study. A single centre multiple choice questionnaire based study had been conducted (one to one method) at Peerless Hospital & B. K. Roy Research Centre, Kolkata. The hospital is a multi-specialty hospital that provides medical, surgical, psychiatric, obstetric and gynecologic and pediatric inpatient care, as well as critical care and emergency services. The hospital has a capacity of 350 beds, of which 75 are acute care beds. We conducted a pilot and validated the questionnaires. For the purpose of this proposal, data had been collected, from all participants fulfilling the inclusion criteria from Emergency Department at Peerless Hospital and B.K. Roy Research Centre, Kolkata. The expected sample size that had been recruited for this study was calculated with the help of Raosoft sample size calculator (http://www.raosoft.com/samplesize.html). The sample size required for this survey was calculated as **132**. Resident doctors of all acute medical and surgical disciplines were included while those who were not willing to participate were excluded. This study was confined among the doctors working at Peerless Hospital and B. K. Roy Research Centre, Kolkata.

Results and Statistical Analysis:-

Out of 120 residents including 63 (52.5%) having age group 31-40 years, 37 (30.8%) having 20-30 years, 20 (16.7%) having above 40 years including 95 (79%) male and 25 (21%) female doctors from different departments mostly from other departments having 1-2 experience, from emergency medicine having experience 2-5 years, from internal medicine having experience 5-10 years, from surgery having experience more than 10 years and from critical care having fresher. Out of which 40 (33.3%) completed, 30(20%) where in 3^{rd} year and rest in 1^{st} & 2^{nd} year.

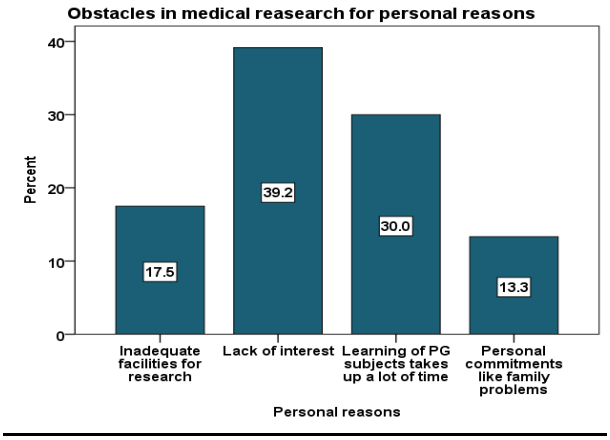
In the distributed questions regarding assessment of knowledge about medical research among study subject maximum correct response was obtained 109 (90.8%) and minimum 97 (80.8%) and rest values where in between 97-109 obtained. The questions regarding the positive and negative response regarding the provided statements of thesis where maximum 103 (85.5%) & minimum 70 (58.3%) in positive response, in negative response maximum 50 (41.7%) & minimum 17 (14.2%) was obtained. Response regarding research practice about correct and incorrect statement was maximum 97(80.8%) & minimum 23 (19.2%) in correct response and in incorrect response it was 31 (25.8%) maximum & 23(19.2%) minimum obtained.

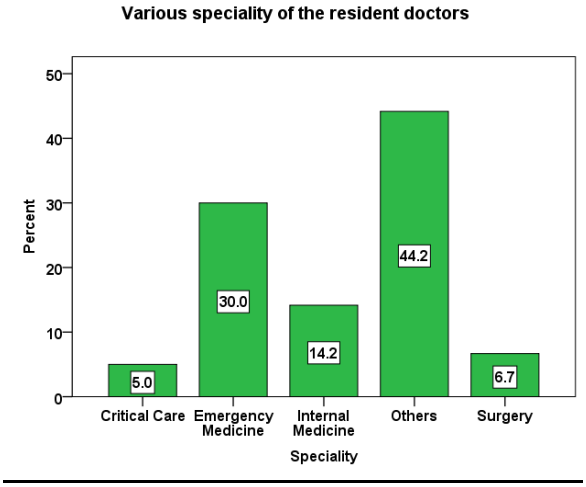


Institutional reasons, regarding medical research was 46 (38.3%) in lack of interest by faculty, 33(27.5%) lack of time, 23 (19.2%) lack of research curriculum, 11(9.2) inadequate mentors/ assistants, 7 (5.8%) inadequate financial support. In personal reasons, regarding medical research result was 47 (39.2%) in lack of interest, 36 (30%) learning of pg subjects takes up a lot of time, 21(17.5%) inadequate facility of research, 16 (13.3%) personal commitments like family problem, marriage & so on.

Table no. I:-(years of experience)

Experience		Frequency	Percent
	1-2 years	31	25.8
	2-5 years	31	25.8
	5-10 years	25	20.8
	More than 10 years	21	17.5
	Fresher	12	10.0
	Total	120	100.0





Discussion:-

Our study reveals that awareness about the need & prerequisites of research was fairly good among resident doctors. Most of the residents showed a positive attitude towards awareness research. But there was disparity found with regard to their attitude & actual practice. Only few were actively involved in making scientific contributions to research. This discrepancy between attitude & practice is a cause of concern & merits further investigation. The major reason cited for poor research activity in our study are lack of interest, learning of PG subject takes lot of time, inadequate facilities for research involved in personal reasons & lack of interest by faculty, lack of time, lack of research curriculum involved in institutional reasons. 'Research Training' should be made as an integral part of M.B.B.S curriculum by introducing short duration (one week) research training programme & conducted at the beginning of internship so that students do not face additional examination burden. Lack of research exposure & training underscores need to review both undergraduate & post- graduate curriculum so that some specific educational intervention is incorporated. We believe that faculty members who are actively involved in research can serve as a powerful 'role models' for post- graduate students. Training programs for faculty members can be helpful in creating 'incubators' for research. Lack of interest was cited as the main obstacle by majority of resident doctors. This obstacle can be overcome in several ways. Medical colleges should conduct workshops for training in research methodology. Projects can further accelerated by providing separate time for residents of clinical responsibilities & allow them to focus on research & committed to the completion of research project. Residents should be made aware of the importance of research & how research may be helpful in solving health problems of the community. Most of our medical colleges lack in terms of well equipped laboratories & that is one of the main reason why the students as well as the staff hardly gets any exposure to the newest technologies & the scope of biomedicine in the medical field. This lack of awareness about the global scenario hindered the professors & the lectures to attempt any sort of research program in specialized area. Also there is minimal initiation from the funding agencies to support any medical research. Lot of committees was formulated during the year to take care of the manpower development in the area. However, no committee will address the critical need of research based medical education.

The limitations of the study are this study is that it was conducted at one institution involving a limited number of trainees. Therefore, the finding cannot be generalized. We could not include the questions that reflected a broad range of topics in the research for evaluation of the knowledge aspect of resident doctors.

Conclusion:-

In spite of various limitations, we found that resident doctors have lack of interest, learning of PG subject takes a lot of time & inadequate facilities for research involved in personal reasons & lack of interest by faculty, lack of time, lack of research curriculum involved in institutional reasons. To improve, there is a need to develop user-friendly, transparent, up-to-date & easily accessible centralised registry. There is clearly need to examine why some resident doctors are reluctant to take part in clinical trial. There is need of experienced mentors to provide guidance on the clinical research process focusing mainly on role of ethics committee, investigator responsibilities, protocol adherence, data management, informed consent & adverse event reporting. There is clear need of exposure to

Clinical Research Centre (CRC) by arranging study visits. Such efforts can lead to practical aspect about trail conducted in real life scenario. Training programme on the clinical trial would help to improve their knowledge.

Clinical significance:-

This will help the institutional officials to develop focused research training by arranging conferences, symposium, and workshops on clinical trail research methodology which would further help the resident doctor to conduct & guide research in a more appropriate manner.

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