

Undergraduate Medical Research: Perception of First MBBS Students

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Background: Research is essential for the progress of the medical field. The research base should be developed from the undergraduate level itself. Though there are efforts taken by universities to fund Undergraduate research, the involvement of students is not up to the mark.

Objective: The present study was undertaken to observe the perceptions of first-year medical students towards undergraduate research.

Materials and methods: The present cross-sectional study was conducted at Alluri Sitaramaraju Academy of Medical Sciences (ASRAM) Medical College, Eluru, Andhra Pradesh. A total of 80 willing participants of first-year MBBS were included in the study. Informed consent was obtained duly from all participants. A standard questionnaire was given to students to answer by themselves.

Results: 90% of students agreed that research helps them for better learning. 91% of students agreed that research upgrades their knowledge. 96% agreed that research is absolutely needed in the medical field. 23% reported that they will opt for research as a career option. 14% reported that they have knowledge about funding agencies of research. 70% of students reported that they need research to be inculcated in the curriculum.

Conclusion: The study highlights that there is a strong need to increase awareness about medical research in undergraduate students and motivate them to apply for funding from agencies like Indian Council of Medical Research, Short Term Studentship and from university funding. Further detailed studies are recommended

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Introduction

Research is extremely mandatory for the progression of the medical field. Teaching and training students are essential from the undergraduate level itself. And that is why National Medical Commission introduced "Health Research Fundamentals" for undergraduates and Basic courses in Biomedical research for post-graduate students. Still, the awareness in students is very less regarding the research. This is true because we won't conduct any classes for them regarding research. There are students who are really talented and interested in pursuing research along with excellent performance in academics. Not many but some senior faculties will not permit undergraduate students, especially first-years to

conduct research, thinking that it may spoil their carrier. But actually, the concept is wrong. There are students who are capable of dealing with both academics and research. Inculcating the research mind from the undergraduate itself will be very useful for the nation. These students can make many innovations. Already in history, we have seen many inventions from the students. Hence, encouraging the students to do research is very essential in medical institutions. Many colleges have adopted this culture of undergraduate research where Medical, dental, nursing, and other health professional students were given the opportunity to do small research projects and present their work. This will increase their self-confidence. The present study was undertaken to observe the perception of the first-year MBBS students regarding the research.

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Materials and methods

Study Design: The present study was a cross-sectional **Study setting:** the study was conducted at the Department of Physiology at Alluri Sitaramaraju Academy of Medical Sciences (ASRAM) Medical College, Eluru, Andhra Pradesh.

Study participants: A total of 80 willing participants of first-year MBBS were included in the study. Informed consent was obtained duly from all participants. Unwilling participants were excluded from the study. Data confidentiality was maintained.

Tools: A questionnaire was prepared in consultation with expert teachers to assess the levels of the perception of the medical students.

Ethical Considerations: The present study protocol was approved by the institutional human ethical committee of the host institute.

Statistical analysis: Data was analyzed by SPSS 20.0 version. Data were expressed as frequency and percentage.

Results

The results were presented in table 1. 90% of students agreed that research helps them for better learning. 91% of students agreed that research upgrades their knowledge. 96% agreed that research is absolutely needed in the medical field. 23% reported that they will opt for research as a career option. 14% reported that they have knowledge about funding agencies of research. 70% of students reported that they need research to be inculcated in the curriculum.

Discussion

The present study was undertaken to observe the perception of the first-year MBBS students regarding

the research. The results were presented in table 1. 90% of students agreed that research helps them for better learning. 91% of students agreed that research upgrades their knowledge. 96% agreed that research is absolutely needed in the medical field. 23% reported that they will opt for research as a career option. 14% reported that they have knowledge about funding agencies of research. 70% of students reported that they need research to be inculcated in the curriculum. There is a need to bridge gap between scientists, doctors, and patients. One of the best ways to deal with this is student research. Inculcating the research as a part of the curriculum like conducting one research study at least in their whole stay at the institute helps them to understand what research is actually. This will definitely help them in their post-graduate thesis. There are multiple funding agencies available to fund students like Indian Council of Medical Research-Short Term Studentship (ICMR STS). It is the teacher who should explain to them the importance of research and encourage them to publish the works and present the content at different conferences. Presenting in conferences will be very good at their age as it helps them to lose social inhibition and also improves their communication skills. Student research not only helps the students but also helps the institutions when it comes to the context of National Assessment and Accreditation Council (NAAC), National Institutional Ranking Framework (NIRF) accreditations. There is a clause for the student research and a few points were allotted to it. Further, the students should be taught about the quality of the journals. Where to publish and how to select a journal should also be taught.^{1,2} As there are many predatory journals, students may go into their trap. While the research point of view allows the student to work more in the project and the teacher should only play a role of guide to guide them on a right

Table 1: Perceptions of students regarding research

Heading	Strongly disagree (%)	Disagree (%)	Neither agree nor disagree (%)	Agree (%)	Strongly agree (%)
Research helps to understand the subject in a better way	0	0	6	90	4
Research helps to improve knowledge on the subject	0	1	6	91	2
Research is absolutely needed in the medical field	0	0	4	96	0
will become a scientist in future	17	30	10	23	20
Do you know any funding agencies that fund research for undergraduates	10	50	20	14	6
Do you agree on research to be included in the curriculum	1	6	20	70	3

path. Because if teachers do everything again, there is no meaning in student research. Every college should constitute a committee for undergraduate research and have its standard operating procedures. Some students should also be part of this committee.

One of the main issues in the Indian context is many senior professors were reluctant to allow first-year students for research. These type of ideas has to be changed. Research and academics are not different entities. One simple example I am providing here. Once I taught my student about blood pressure recording, I recorded her left-hand blood pressure. Then she asked me a question. "Sir will right hand also have same Blood pressure." I smiled and answered her let's check it in all your friends and find out. Start recording all students' right and left-hand blood pressures after obtaining ethical clearance and informed consent. This paper was published in an international journal^[3]. So a little pinch of encouragement will make a huge difference.

One more hurdle in research was reported as funding. Simple research at which low cost can be planned to overcome this hurdle and many managements are ready to fund the charges for publications. Hence, all medical teachers should take the initiative and encourage students

to conduct at least one research project during their undergraduate tenure may be highly beneficial.

Conclusion

The study highlights that there is a strong need to increase awareness about medical research in undergraduate students and motivate them to apply for funding from agencies like ICMR STS and from university funding. Further detailed studies are recommended. The current study pointed to the positive impact of implementing group research assignments within the undergraduate medical curriculum.

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