

# Perception of Postgraduate Students towards Medical Research.

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## Abstract

**Introduction:** Medical research is a systematic approach of reasoning, documenting, analysing, and reporting unusual clinical observations that we come across in everyday clinical practice. It has a great impact on quality of patient care. We aimed to explore perceptions towards medical research among newly joined postgraduate medical students.

**Methodology:** A questionnaire based study conducted at the medical education department of our institute. 40 postgraduate students participated in the study, majority of the students agreed that research is important in medical field.

**Results:** 30% feel that research cannot be combined with clinical practice. Funds and financial gains were main barriers for research and 87% agree that research is compulsory in the postgraduate program, 82% were willing to get involved if motivated. Just 12.5% of them were oriented to research during their undergraduate period and almost 75% of them now feel that undergraduates should get exposed to research methodology and it should be included in the undergraduate curriculum.

**Conclusion :** Inadequately designed curricula and barriers to research have not enabled students to realize the crucial importance of research to clinical practice.

**Key words :** Medical research, perception.

## Introduction

Biomedical research or experimental medicine is simply known as medical research. Research in medicine is the art of Inventing, redefining, remodelling concepts to promote critical thinking, communication, to improve medical knowledge, critical appraisal of medical literature with professional self development, as a career and as a medical university requirement to pursue postgraduate degree. Clinical, pre and para clinical research is conducted to aid and support the development of knowledge in the field of medicine.

Introducing research methodology to the newly joined postgraduate students is made compulsory by the norms of the medical council of India, which is a welcome decision. Research workshops create interest, motivate and orient students towards research activities to be fulfilled during their postgraduate study tenure.

Presently, most students consider research projects as their university requirement to be fulfilled

during their postgraduate course. Majority of them perceive research as stressful and unimportant. Barriers include lack of training, no encouragement, less recognised field, tedious process, time consuming, lack of resources and support agencies with poor finances all hinder research activity among postgraduate students.

Students aspiring to pursue higher studies abroad need to be acquainted with research work either in the form of projects, publications or presentations of scientific articles in indexed journals. Such students need guidance to reach their goals, achieve greater standards in medical training and mould them as future doctors or medical researchers.

Students need proper guidance by trained professionals who could be their role models to choose research as a career in future. This study was conducted with an intention to know how postgraduate students perceive research in medicine, their interests and the need to inculcate research orientation in the undergraduate curriculum. We

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conducted this study at the research methodology workshop, where all participants answered this questionnaire as a pre-test, the results of this study will be a feedback to the teaching faculty at the department of medical education.

**Objectives**

To explore perceptions towards research among newly joined postgraduate students of various departments.

To assess the need to incorporate research methodology in the undergraduate curriculum.

**Methodology**

An open ended questionnaire based qualitative study was conducted at the medical education department of our institute. All the newly joined postgraduate students of various departments who were scheduled to attend the research methodology workshop at the department of medical education, participated in the study. The participants were asked to complete a questionnaire with questions based on concepts of perceptions, motives, barriers, career options and education towards medical research were asked. The questionnaire was administered as a pre-test to all the participants and the participation was voluntary.

A total of 40 postgraduate students participated in the study and the results were analysed using descriptive frequency analysis using the SPSS version.

**Results**

A total of 40 postgraduate students answered the questionnaire and all of them (100%) did agree that research is important in medical field, as it is beneficial to patients and the treating doctors (100%),it helps in better learning (100%),it is essential to update clinical knowledge (100%),but 30% of them felt that research cannot be combined with clinical practice.92.5% of

them were of the opinion that we can improve patient outcome with continued medical research. There was a mixed response about the sources of information for doing research.

80% of the participants never knew about research in their undergraduate period,however 12.5% of the postgraduate students had an opportunity to present and publish some research work during their undergraduate period.95% of the study group are willing to get involved in research activity if encouraged by their seniors.33% of students accept that research project should be an important criteria for acceptance to postgraduate program. Just 10% of the students mainly from the clinical side feel that research is a burden for them along with busy clinical schedule.

When enquired about the finances for their research work,45% opted for funding agencies,40% think that the institute should pay,5% want to use their self earned money and 5% were unaware about the possibilities to raise funds.35% of the students were under the impression that research career has less financial gains.

Only 20% of the students are willing to think of research as their career option. However 87.5% of them know that research is not limited for people who are in academics.72.5% of them feel that research career for a doctor is good,5% think it is financially a bad option,22.5% don't know what it could be.

Students did express their views that 87.5% of them felt that teaching research methodology should be made compulsory to all medical students at the undergraduate level.75% also felt that research participation should be made compulsory to all medical students, which will make students more research friendly.

Sl.No.	Group	Question	Yes%	No%	Unans Wered
	<b>Perception</b>				
1.		Do you think research in medical field is important.	100	0	0
2.		Research in medical field is beneficial to patients and the treating doctors.	100	0	0
3.		Research helps in better learning.	100	0	0
4.		Research is essential to update clinical knowledge.	100	0	0
5.		Research cannot be combined with clinical practice.	20	77.5	2.5
6.		Can we improve patient outcome with continued medical research	92.5	75	0
7.		What are the sources of information for doing research a)Books b) Equipment c) Journals d) Library e) Internet f)more than one option g) Don't know.	2.5010 2.533		2.5
	<b>Motivation</b>				
8.		Have you ever been a part of a research team during your undergraduate period.	20	80	0
9.		Have you ever presented research work during your undergraduate study period.	12.5	87.5	0

10.		Do you think research projects should be an important criteria for acceptance to postgraduate program.	82.5	15	0
11.		Do you like to get involved in any research activity if encouraged by your seniors.	95	5	0
12.		Have you ever published any form of research work during your undergraduate period.	12.5	87.5	0
13.		Do you think Dissertation or Thesis work, is only a requirement for completion of postgraduate course.	15	82.5	2.5
14.		Are you personally interested in doing research during your postgraduate study period.	87.5	10	2.5
15.		Do you feel research is a burden for postgraduates from clinical subjects.	10	85	2.5
	<b>Barriers</b>				
16.		If you want to do some research work, how to get enough finances for it. a)Self earned money b) Pocket money c) Funding agencies d) Institute pays.	504540		5
17.		Research career has less financial gains.	35	62.5	2.5
	<b>Career</b>				
18.		Would you like to opt for research to be your future career option.	20	77.5	2.5
19.		Do you think research is suitable only for those who want academic career.	12.5	87.5	0
20.		What do you think of research career for a doctor a)Good b) financially bad option c) No status /respect d) Not good e) Don't know	72.55	22.5	0
	<b>Education</b>				
21.		What is your opinion on this note "Teaching research methodology should be made compulsory to all medical students ".	87.5	10	2.5
22.		Research participation should be made compulsory to all medical students.	75	22.5	2.5

## Discussion

Medical research is very important, it motivates and allows professionals to adopt evidence based medicine into practice. Students need to know that medicine is not a stagnant subject, it is always on the move. Research brings in newer options for better patient care.

Though this is a small study involving small number of participants, the results are very informative. No similar studies involving medical postgraduate students were available on google search, but comparisons was possible with available literature. Majority of the students know that research is very crucial in medical field, perception towards research was variable with a range of 91 -100%<sup>1,2,3,4,5</sup>

About 20% of the study group were involved in research work during their undergraduate period. Most of them are not aware of research during the undergraduate period. Now they feel that early exposure to research could be beneficial.<sup>3,4,1,5</sup>.Lack of motivation and knowledge about research and as it not a part of the curriculum so students are not interested in doing research during the undergraduate period.<sup>5</sup>

In our study,funds and financial gains were main barriers,AlGhamdia<sup>3</sup> has quoted that lack of

professional guidance(84%),lack of training courses(88%),lack of time(72%),while Abushouk<sup>4</sup> in their study had lack of time and knowledge (76%),no funds(56%) as barriers.Meraj<sup>2</sup> has reported that 70% of their study group felt that research is stressful.Sharma<sup>6</sup> have found technical,financial and time factor as barriers for research component among dental postgraduate students.

20% of our students would opt research as their future career, surprisingly 65.7% of students in a study by Meraj<sup>2</sup> were interested to take up research as their career.

80% of our study group felt the need to educate undergraduate students about research and be a part of the curriculum,as this will improve performance during their postgraduate period. Osman<sup>ref</sup> has reported the need for research to be included in the undergraduate curriculum.

If medical students get introduced to research as a part of undergraduate curriculum, it will bring about better acceptance of research during the postgraduate study period.Gaps in research training are due to inadequate approaches, shortage of research staff, lack of funds and scarce infrastructure for

research training.

### Conclusion

Most students considered research valuable but at the same time they perceived it as stressful and complex. Postgraduate medical students should be motivated and get involved in research activities. Medical research is crucial and it should be recognized as an important component of undergraduate medical education.

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