

## Original Research Article

# Research attitude and practices of medical teachers

Neeraj<sup>1</sup>, Jayshree J. Upadhye<sup>2\*</sup>

<sup>1</sup>Department of General Medicine, Srinivas Institute of Medical Sciences and Research Centre, Mangaluru, Karnataka, India

<sup>2</sup>Department of Gynaecology and Obstetrics, Varun Arjun Medical College and Rohilkhand Hospital, Shahjahanpur, Uttar Pradesh, India

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### \*Correspondence:

Dr. Jayshree J. Upadhye,

E-mail: [jayshreeupadhye@gmail.com](mailto:jayshreeupadhye@gmail.com)

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### ABSTRACT

**Background:** The present study was conducted on medical teachers to evaluate their attitudes and practices towards research.

**Methods:** This study was conducted at Srinivas Institute of Medical Sciences and Research Centre, Mangaluru, Karnataka India. In a cross-sectional study, randomly, 50 medical teachers were selected for evaluation and assessment of attitudes and practices towards research amongst the medical teachers.

**Results:** In this study, 44 (88%) of faculties were interested in research. 36(72%) of faculties said that they were using internet for research regularly while 14(28%) of faculties said that they were using internet for research sometimes. 36(72%) of faculties had attended state conferences, 18(36%) of faculties had attended national conferences while 5(10%) of faculties had attended international conferences. 6(12%) of faculties presented 1-2 papers in Conferences, 8(16%) of faculties presented 3-4 papers in Conferences while 36(72%) of faculties presented 1-2 papers in Conferences. 11(22%) of faculties were involved in research with the aim of purely research. 19(38%) of faculties felt that resources are inadequate, 17(34%) of faculties felt that reference material is inadequate, 16(32%) of faculties felt that hospital records were inadequate,

**Conclusions:** In this study, the attitude towards the research was quite healthy. There was a lack of utilization of research facilities and less research output like poster/ paper presentation in academic meets and research publications in the journals by medical faculties.

**Keywords:** Attitudes, Medical teachers, Practices, Research

### INTRODUCTION

Research refers to a search for knowledge. It may be defined as “a systematized effort to gain new knowledge.”<sup>1</sup>

Health research is the systematic generation of new knowledge in the field of medical, natural, social, economic, and behavioral sciences. It is useful to improve the health of individual or groups. According to Global

Forum for Health Research, health research does not end till the people’s health is improved in a measurable way.<sup>2</sup>

Health research is essential to improve health care.<sup>2</sup> Because of rapidly evolving medical science of today, it is necessary that the medical students, PG trainees and faculties keep abreast with the latest developments. This requires the understanding and use of scientific principles and methods.

Research activity of PG trainees and faculties is important. It assures better clinical care, critical reasoning, lifelong learning and future research activity.<sup>3</sup>

Training for research skills and experience of research in the early years of the medical profession is associated with continued professional academic work and may also help resident's career decisions.<sup>3</sup> Research involves systematic experimentation to discover the new knowledge.<sup>4</sup>

Medical education is a complex and demanding process. It can benefit enormously from meticulous research. According to AMEE Medical Education Guide No. 20, a medical teacher has an important role as an educational researcher.<sup>5</sup>

In Indian medical schools, there are very sparse endeavors to encourage health professionals for educational research. Generally, they seek guidance from research that deals with disease-oriented approaches. They do not make much use of educational research though it has ability to bring about changes in teaching and subsequent clinical practice.<sup>6</sup>

Medical Education Units (MEU) have been established in Indian medical schools with an aim to conduct research and provide scientific information for advancement of medical education.<sup>7</sup> They play a key role in research culture by motivating medical teachers. The efforts of Medical Education Units is largely dependent on Institutional culture of scholarship, faculty development initiatives and opportunities for advanced training.<sup>8</sup>

The present study was conducted on faculties from Srinivas Institute of Medical Sciences and Research Centre, Mangaluru, Karnataka India to evaluate their attitudes and practices towards research. The study measures the research utilization and outputs of faculties by analysis of research presentations and publications.

Aims and objectives of the study were to evaluate the attitudes and practices of faculties from a medical college towards research

To measure the research utilization and outputs of faculties by analysis of research presentations and publications.

## METHODS

The Study was conducted at Srinivas Institute of Medical Sciences and Research Centre, Mangaluru, Karnataka India from 1<sup>st</sup> August to 30<sup>th</sup> September 2019. A questionnaire was prepared for evaluation and assessment of attitudes and practices towards research amongst the medical teachers.

Total of 50 teaching staff members participated and answered a voluntary and confidential preformed

questionnaire of the study. Details of the responses were noted down. Analysis of various parameters by standard statistical methods was done in erventages. The possible remedial measures were suggested.

The 50 participants were with average working experience of seven years (Assistant to Associate professors) and 12 years for Professors.

### Inclusion criteria

- Medical teachers from medical college holding a post of Professor, Associate Professor or Assistant Professor
- Medical teachers who are willing to participate in the study

### Exclusion criteria

- Medical teachers who are not willing to participate in the study

**Table 1: Questionnaire for research attitude in medical teachers.**

1	Name
2	Age
3	Interested in research- Yes/No
4	Qualification
5	Designation- Asst Prof/Asso Prof/Prof
6	Is Research Beneficial? –Yes/No
7	Is there a need to promote the Research? - Yes/No
8	Is Research Waste of Time & Money? - Yes/No
9	Conferences attended- State/National/International
10	Workshops attended- State/National/International
11	Utilization of Library- Daily/weekly/Monthly
12	Main Aim of Library Visits- Knowledge/Teaching/Research
13	Internet Usage for Research-Regular/sometimes /Never
14	Research Conducted in the Past - Yes/No
15	Presentation of Research in Conference- Paper/Poster
16	No. of papers published in journals in last 3 years-
17	Reason for Not Conducting Research at Present-
18	Main Aim of Involvement in Current Research
19	Obstacles Faced During Current Research Work

## RESULTS

In this study, out of 50 faculties, 25 (50%) of faculties were from 25-40 years, 16 (32%) of faculties were from 41-50 years while 9 (18%) of faculties were from 51-60 years. In this study, 29 (58%) of faculties were females while 21 (42%) of faculties were males.

So, majority of medical teachers were from 25-40 years age group. There was female dominance (Table 2).

**Table 2: Age and sex distribution.**

Age distribution	No. of faculties	Percentage
25-40 years	25	50%
41-50 years	16	32%
51-60 years	9	18%
Sex distribution		
Males	21	42%
Females	29	58%

In this study, 27(54%) of faculties were Assistant Professors, 15(30%) of faculties were Associate Professors while 8(16%) of faculties were Professors. So, Assistant Professors were in maximum number (Table 3).

**Table 3: Designation.**

Designation	No. of Faculties	Percentage
Assistant Professor	27	54%
Associate Professor	15	30%
Professor	08	16%

**Table 4: Research attitude.**

Research attitude	Yes	No
Interested in research	44(88%)	6(12%)
Is research beneficial?	41(82%)	9(18%)
Is there a need to promote the Research?	46(92%)	4(8%)
Is research waste of time and Money?	6(12%)	44(88%)

In this study, 44(88%) of faculties were interested in research, 41(82%) of faculties thought that research beneficial, 46(92%) thought that there a need to promote

the research while 6(12%) thought that research is waste of time and money. So, majority of medical teachers were interested in research and felt that it is beneficial and should be promoted (Table 4).

In this study, 9(18%) of faculties were utilizing library daily, 22(44%) of faculties were utilizing library weekly while 10(22%) of faculties were utilizing library monthly while 9 (18%) of faculties were not all utilizing library.

Among 44(88%) were of faculties said that they are visiting library to gain knowledge, 40(80%) of faculties said that they were visiting library for teaching material while 28(56%) of faculties said that they were visiting library for research work. 36(72%) of faculties said that they were using internet for research regularly while 14(28%) of faculties said that they were using internet for research sometimes.

So, most of them were visiting library weekly for gaining knowledge. Majority were using internet daily (Table 5).

In this study, 36(72%) of faculties had attended state conferences, 18(36%) of faculties had attended national conferences while 5(10%) of faculties had attended international conferences. 32(64%) of faculties had attended state level workshops, 8(16%) faculties had attended national level workshops while 5(10%) faculties had attended international level workshops. 6(12%) of faculties presented 1-2 papers in Conferences, 8(16%) of faculties presented 3-4 papers in Conferences while 36(72%) of faculties presented 1-2 papers in Conferences.

So, majority had attended state conferences and workshops with paper presentations (Table 6).

**Table 5: Utilization of library and internet.**

Utilization of library and internet	Daily	Weekly	Monthly	Never
Utilization of library	9(18%)	22(44%)	10(22%)	9(18%)
Main aim of library visits	Knowledge	Teaching	Research	
	44(88%)	40(80%)	28(56%)	
Internet usage for research	Regular	Sometimes	Never	
	36(72%)	14(28%)	0(0%)	

**Table 6: Conferences and workshops attended by faculties.**

	State	National	International
Conferences attended	36(72%)	18(36%)	5(10%)
Workshops attended	32(64%)	8(16%)	5(10%)
Presentation of Research in Conference	Paper	Poster	Both
	21(42%)	10 (20%)	19(38%)
No. of papers presented in Conference	1-2	3-4	>4
	6(12%)	8(16%)	36(72%)

In this study, 11(22%) of faculties were involved in research with the aim of purely research, 13(26%) of faculties were involved in research with the aim of promotion while 26(52%) of faculties were involved in research with the aim of research and promotion both. So, more than 50% teachers were interested in both research and promotion (Table7).

**Table 7: Main aim of involvement in current research.**

Main aim of involvement in current research	No. of faculties	Percentage
Purely research	11	22%
Promotion	13	26%
Both	26	52%

**Table 8: Obstacles faced during research work.**

Obstacles faced during research work	No. of faculties	Percentage
Internet Facility	7	14%
Journals /Reference materials	17	34%
Resources/ Funds	19	38%
Laboratory facilities	9	18%
Time	8	16%
Hospital records	16	32%
Deptt co-operation	14	28%
All	10	20%

In this study, 19(38%) of faculties felt that funds or resources are inadequate, 17(34%) of faculties felt that reference material is inadequate, 16(32%) of faculties felt that hospital records are inadequate, 14(28%) of faculties felt that department co-operation was inadequate, 9(18%) of faculties felt that laboratory facilities are inadequate, 8(16%) of faculties felt that time was inadequate, 7(14%) of faculties felt that internet facility was inadequate while 10(20%) of faculties felt that all facilities were inadequate. So, getting funds and reference material was main problem in conducting research (Table 8).

## DISCUSSION

In this study, 25(50%) of faculties were from 25-40 years, 16(32%) of faculties were from 41-50 years while 9(18%) of faculties were from 51-60 years. In this study, 29(58%) of faculties were females while 21(42%) of faculties were males. Munoli S et al, found that among the participants females were slightly more (56%) than males (44%).<sup>9</sup> In this study, 27(54%) of faculties were Assistant Professors, 15(30%) of faculties were Associate Professors while 8(16%) of faculties were Professors.

Munoli S et al, found that Assistant professors were more (62%) compared to associate professor (12%) and professors (26%).<sup>9</sup> In this study, 44(88%) of faculties were interested in research, 41(82%) of faculties thought

that research beneficial, 46(92%) thought that there a need to promote the research while 6(12%) thought that research is waste of time and money.

In this study, 9(18%) of faculties were utilizing library daily, 22(44%) of faculties were utilizing library weekly while 10(22%) of faculties were utilizing library monthly while 9(18%) of faculties were not all utilizing library.

In this study, 44(88%) were of faculties said that they visiting library to gain knowledge, 40(80%) of faculties said that they were visiting library for teaching material while 28(56%) of faculties said that they were visiting library for research work.

Mehta S et al, found that 36(72%) of faculties were using internet for research regularly while 14(28%) of faculties were using internet for research sometimes. 56% utilized library on weekly basis, while 9(18%) visited library monthly, and 13(26%) visited regularly. The main aim of the library visit was to gain knowledge and refer the reference books than research materials. Internet usage for academic and research activity was very less. Only 30(60%) faculty members had never used internet services for the research purpose.<sup>10</sup> In this study, 36(72%) of faculties had attended state conferences, 18(36%) of faculties had attended national conferences while 5(10%) of faculties had attended international conferences. In this study, 32(64%) of faculties had attended state level workshops, 8(16%) faculties had attended national level workshops while 5(10%) faculties had attended international level workshops. In this study, 6(12%) of faculties presented 1-2 papers in Conferences, 8(16%) of faculties presented 3-4 papers in Conferences while 36(72%) of faculties presented 1-2 papers in Conferences.

Srivastava TK et al, found that 52.5% faculty got their project work published and 40% (16) presented it in National conference. 32.5% (13) faculty member have undertaken new ER projects at their workplace. Communication skills (23%), Interactive Teaching methods (23%), Quiz as a TL Method (15%), and collaborative learning (8%) was also taken.<sup>11</sup>

In this study, 11(22%) of faculties were involved in research with the aim of purely research, 13(26%) of faculties were involved in research with the aim of promotion while 26(52%) of faculties were involved in research with the aim of research and promotion both.

Neelakandhan et al, found that out of 50 faculty members 49(98%) were interested in research, 37(74%) had conducted research in the past, 21(42%) had published the research work. 18(36%) faculty members were engaged in research work, out of whom 12(24%) were engaged in research as a part of their further study while only 6(12%) were doing the research for research purpose. All faculty members felt that research needed improvement.<sup>12</sup>

In this study, 19(38%) of faculties felt that funds or resources are inadequate, 17(34%) of faculties felt that reference material is inadequate, 16(32%) of faculties felt that hospital records are inadequate, 14(28%) of faculties felt that department co-operation was inadequate, 9(18%) of faculties felt that laboratory facilities are inadequate, 8(16%) of faculties felt that time was inadequate, 7(14%) of faculties felt that internet facility was inadequate while 10(20%) of faculties felt that all facilities were inadequate.

Sadana R et al, found the need to improve the quality and practices of research in medical institutions and take necessary steps like research policy and procedures, incentives, providing adequate research facilities, library with latest journals and library books. Also access to high-speed internet connectivity must be initiated at institutional level. Research training program for M.B.B.S. students and postgraduate students will increase the research awareness and promote the research activity in institution.<sup>13</sup>

Anbari Z et al, found the most important barriers among researcher students as institutional barriers (3.3±1.3). In non-researcher students there were individual barriers (3.6±1.7). The majority of barriers among researcher students appeared to be time, lack of access to electronic resources and prolongation of the process of buying equipment. The greatest barriers among non-researcher students included the lack of time, scientific writing skills, and access to trained assistants.<sup>14</sup>

## CONCLUSION

In this study, the attitude towards the research was quite healthy as compared to actual practice. There was a lack of utilization of research related infra-structure and facilities. There was less research output in the form of poster/ paper presentation in academic meets and research publications in the journals by medical faculties. Research needs to be improved by means of strengthening the research related infrastructure and research training of faculties.

Research training program for undergraduate and postgraduate students may increase the research awareness and may promote the research activity in institutions.

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