

## The attitudes and practices of faculties towards research

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### Abstract

The present study was conducted on faculties from a medical college setup to evaluate their attitudes and practices towards research. The study tries to measure the research utilization and outputs of faculties by analysis of research presentations and publications. A forty point questionnaire was prepared for evaluation and assessment of attitudes and practices towards research amongst the faculties. Randomly, 50 members of the faculties were selected for the project study. Out of total 50 faculty members 49 (98%) were interested in research, 37 (74%) had conducted research in the past, 21 (42%) had published the research work which they had carried out in the past. At the time of study 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 the purpose of research. All 50 faculty members felt that research needed improvement. The attitude towards the research is quite healthy as compared to actual practice. There is a lack of utilization of research related infra-structure and facilities. There is less than desirable research output in the form of poster / paper presentation in academic meets and research publications in the journals by medical faculties in teaching institution.

**Keywords:** Research, Attitudes, Practices, Medical faculties.

### Introduction

Research in a common parlance refers to “a search for knowledge” and may be defined as “a systematized effort to gain new knowledge.”<sup>(1)</sup> Research comprises of creative work undertaken on systematic basis in order to increase the stock of knowledge and use of this knowledge to device new applications. Thus health research is the systematic generation of new knowledge in the field of medical, natural, social, economic, and behavioral sciences and its use 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>

The clinical researchers have been classified as “endangered species” by many authors<sup>(3)</sup> who have tried to analyze the trend of decreasing interest towards health research. This trend of waxing and waning interest towards updating knowledge and undertaking clinical research is quite apparent and dangerously true amongst the faculties of medical institutions in India and other Asian countries.<sup>(4,5)</sup>

Health research is essential for improvement of health care.<sup>(2)</sup> Unfortunately, health research has a low priority in the developing world. In all disciplines of science and technology, India has 137 researchers per million citizens,<sup>(6)</sup> as compared to 4,663 researchers per million citizens in the United States.<sup>(7)</sup> The published research output from South Asia is small - South Asian health researchers accounted for only 1.2% of all papers within the ‘Institute for Scientific Information’ database from 1992–2001.<sup>(8)</sup> Developing countries must therefore enhance their research capacity to efficiently address the growing burden of both communicable and non-communicable diseases.<sup>(9)</sup>

The rapidly evolving medical science of today necessitates 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 as it promises better clinical care, critical reasoning, lifelong learning and future research activity.<sup>(10,11)</sup> With rising health costs, local literature is important for facilitating evidence based and cost-effective decisions and thereby improving clinical practice. The utilization and production of research along with human and institutional development are two important components of health research.<sup>(12)</sup>

Before trying to find remedial measures, it is important to identify the “etiological” factors responsible for this “malice” so that those factors can be analyzed and “preventive and therapeutic” measures can be initiated.

The present study was conducted on faculties from a medical college setup to evaluate their attitudes and practices towards research. The study tries to measure the research utilization and outputs of faculties by analysis of research presentations and publications.

### Materials and Method

The Study was conducted at C. U. Shah Medical College and Hospital, Surendranagar (India) in September-October, 2007. A forty point questionnaire was prepared for evaluation and assessment of attitudes and practices towards research amongst the faculties. Total of 50 teaching staff members participated and answered a voluntary and confidential proforma of the project study. Details of the qualitative and quantitative responses were noted down in proforma, analysis of

various parameters by standard statistical methods<sup>(1)</sup> was done and the results discussed. The possible remedial measures especially from the stand point of the management / authorities are suggested.

## Results

The major findings of the study are presented in the following Tables 1 to 5.

**Table 1: Characteristics of Study Population**

Sex-wise Distribution			
Male	Female	Total	
33 (66%)	17 (34%)	50 (100%)	
Age-wise Distribution			
21-40 Years	41-60 Years	> 60 Years	Total
33 (66%)	8 (16%)	9 (18%)	50 (100%)

**Table 2: Attitude towards research of study population**

Interest Shown in Research by the Faculties				
	Highly Interested	Interested	Not Interested	Total
Faculties	23 (46%)	26 (52%)	1 (2%)	50 (100%)
Qualification-wise distribution				
MBBS / Diploma	4 (8%)	3 (6%)	1 (2%)	8 (16%)
MD / MS	13 (26%)	13 (26%)	0 (0%)	26 (52%)
M.Sc.	6 (12%)	10 (20%)	0 (0%)	16 (32%)
[X <sup>2</sup> = 26.65, Degree of Freedom = 8, P < 0.001. The result is <b>Significant</b> ] <sup>(2)</sup>				
Designation-wise distribution				
Resident / Tutor	6 (12%)	3 (6%)	1 (2%)	10 (20%)
Asst. Professor	11 (22%)	11 (22%)	0 (0%)	22 (44%)
Asso. Professor	5 (10%)	2 (4%)	0 (0%)	7 (14%)
Professor	1 (2%)	10 (20%)	0 (0%)	11 (22%)
[X <sup>2</sup> = 13.63, Degree of Freedom = 6, P < 0.05. The result is <b>Significant</b> ] <sup>(2)</sup>				
Response to Question "Is Research Waste of Time & Money?"				
No	Don't Know	Yes	Total	
50 (100%)	0 (0%)	0 (0%)	50 (100%)	
Response to Question "Is Research Beneficial?"				
Yes	No	Total		
50 (100%)	0 (0%)	50 (100%)		
Response to Question "Is there a need to Promote the Research?"				
Yes	No	Total		
50 (100%)	0 (0%)	50 (100%)		

**Table 3: Preparation for research by study population**

Conferences Attended by Faculties. [50 participants]			
State Level	National	International	Average
293	160	30	9.66 / Faculty
Workshops Attended by Faculties. [50 participants]			
State Level	National	International	Average
134	93	8	4.7 / Faculty
Utilization of Library by Faculties			
Daily	Weekly	Monthly	Total
13 (26%)	28 (56%)	9 (18%)	50 (100%)
Main Aim of Library Visits of Faculties. [50 participants]			
Knowledge	Teaching	Research	
44 (88%)	29 (58%)	24 (48%)	
Reading Habits of Faculties			

	Always	Sometimes	Never	Total
Research Articles	26 (52%)	24 (48%)	0 (0%)	50 (100%)
Reference Book	36 (72%)	14 (28%)	0 (0%)	50 (100%)
Internet Usage for Research by Faculties				
Regular	Sometimes	Never	Total	
20 (40%)	0 (0%)	30 (60%)	50 (100%)	

**Table 4: Practice of research by study population**

Research Conducted in the Past by Faculties.				
Yes	No		Total	
37 (74%)	13 (26%)		50 (100%)	
Presentation of Research in Conference (Poster) by Faculties				
State Level	National	International	Average	
28	46	1	2 / Faculty	
Presentation of Research in Conference (Paper) by Faculties				
State Level	National	International	Average	
44	31	4	2.1 / Faculty	
Publication of Research in Journal by Faculties				
Published	Not Published		Total	
21 (57%)	16 (43%)		37 (100%)	
Number of Publication by Faculties				
	State Level	National	International	Average
Total	57	65	18	6.6 / Faculty
Last 3 Years	20	9	1	1.4 / Faculty
Current Research Scenario; Research work undertaken by Faculties				
Engaged	Not Engaged		Total	
18 (36%)	32 (64%)		50 (100%)	

**Table 5: Obstacles or motives for not doing or doing research**

Reason for Not Conducting Research at Present by Faculties:	
Total Faculties	32 (100%)
Lack of Resources	15 (47%)
Lack of Time	14 (44%)
Lack of Research Materials	12 (38%)
Lack of Research Facilities	12 (38%)
Lack of Research Training	10 (31%)
Lack of Educational Materials	3 (9%)
Other	4 (13%)
Main Aim of Involvement in Current Research by Faculties:	
Total Faculties	18 (100%)
Additional Qualification & Promotion	12 (67%)
Purely Research	6 (33%)
Obstacles Faced During Current Research Work by Faculties:	
Total Faculties	18 (100%)
Internet Facility	10 (56%)
Journals	9 (50%)
Reference Materials	8 (44%)
Resources / Funds	8 (44%)
Laboratory facilities	7 (39%)

Time	4 (22%)
Hospital Records	2 (11%)
Procedural Delay	2 (11%)
Departmental Co-operation	1 (6%)

### Discussion

The dwindling interest in research has been a point of concern especially in the field of health research in academic medical institutions. The characteristics of the study population (Table 1) showed variety of features, wherein the dominant age/sex group is males of 31-40 years of age. The major portion of study population is married and majority having children and staying in campus. The qualifications varied from fresh undergraduates to experienced post graduates including veteran faculties. Residents to Emeritus professors from pre-clinical, para-clinical and clinical departments were included in the study. The features observed may be comparable to those of other teaching medical institutions. The questionnaire was framed to identify the attitude of the faculty members towards the health research, their participation in scientific and academic events and to measure the research utilization and output. An attempt was also made to elicit the reasons for interest/apathy towards research and also to identify the constraints and restraints along with the bottlenecks

and lacunae in the setup. The questionnaire was pre-tested.

All faculty members except one expressed interest in research (Table 2). High interest in research was expressed by 23 (46%) faculty members. The degree of interest was associated with different variables like age, sex, marital status, children, residential status, qualifications, designation, specialty, and experience. It was noted that there was significant association of qualification and designation with interest in research. The fresh postgraduate trainees expressed high interest towards research in comparison to senior postgraduates. The reason could be that the attainment of postgraduate degree may have resulted in complacency along with the fact that there were no other incentives provided to sustain the interest in research. Higher interest was noted among residents, assistant professors and associate professors in comparison to professors. Again, absence of additional benefits after reaching the top level of employment may be responsible for this observation.

Other variables of study population like age, sex, marital status, children, residential status, specialty and experience did not have any significant impact on the attitude of interest in research amongst the faculty. The study population unanimously agreed that research is not a waste of time and money.

The faculty members had attended reasonable amount of scientific meets (Table 3). On an average 9.66 conferences and 4.7 workshops were attended by faculty members till then though active participation was relatively less in form of presentations and publications. Majority of faculty members (56%) utilized library services on weekly basis, while 9 (18%) visited library monthly, and 13 (26%) visited regularly. The main aim of the library visit was to strengthen knowledge and refer the reference books more in comparison to find research materials. Internet usage for academic and research activity was very less, as 30 (60%) faculty members had never used internet services for the research purpose.

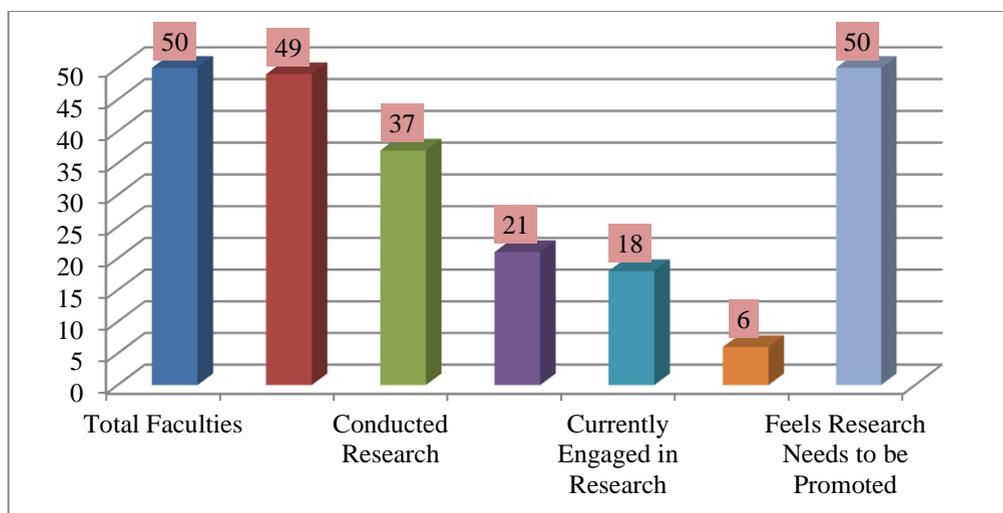
Out of 50 faculty members, 37 (74%) had conducted research in past (Table 4). Many of them had

presented their research in conferences either as paper or poster with an average of 4.1 (2 + 2.1) presentations per faculty. Out of 37 faculties who had conducted research in the past, 21 (57%) had published their research work in a journal with an average of 6.6 publications per faculty. The recent publications (<3 years) was low with just 1.4 publication per faculty. Out of 37 faculty member 16 (43%) had never published their research works. The principle reason for not conducting the research and publishing the research was lack of information about research and publication, lack of training and time constraints. The common motives for conducting the research were additional qualification, knowledge and self recognition.

The current scenario of research left much to be desired as out of 50 faculty members only 18 (36%) were engaged in research while 32 (64%) faculty members did not have any research work on hand. The main reasons cited for not undertaking research were lack of resources, time, research materials, facilities and training. Out of 18 faculty members engaged in research, 12 (24%) were doing research as a part of their higher studies for improvement of qualification and only 6 (12%) faculty members were involved in a research for the purpose of a research.

The major difficulties researchers faced during the research period were lack / inadequacy / access to internet facility, journals, reference materials, and resources, laboratory facilities, and hospital records. Time constraints, procedural delay and departmental co-operation also played an important role (Table 5).

The current study tends to bring out the wide gap (Fig. 1) between the attitude and practices as most 49 (98%) faculty members expressed their interest in research and had a view that the research is beneficial, 37 (74%) faculty members carried out research in the past, 21 (42%) of them had published their research, 18 (36%) faculty members were engaged in research work, out of whom only 6 faculty members (12%) were carrying out research for the purpose of research while everybody unanimously vows that research needs to be promoted in institution.



**Fig. 1: Research Attitudes & Practices**

Hence the need to bridge this gap to improve the quality and practices of research in medical institutions is obvious and necessary steps like research policy and procedures, incentives, encouragement of active participation in academic meets, providing adequate research facilities, enrichment of library with latest journals and library books as well as access to high-speed internet connectivity must be initiated at institutional level. Research training program for M.B.B.S. students and postgraduate students may be very useful as it can increase the research awareness and promote the research activity in institution.<sup>(13-15)</sup>

### Conclusion

The attitude towards the research is quite healthy as compared to actual practice. There is a lack of utilization of research related infra-structure and facilities. There is less than desirable research output in the form of poster/ paper presentation in academic meets and research publications in the journals by medical faculties in teaching institution.

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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