Medical Education Research: A Need or Necessity

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ABSTRACT
Objective: Creating awareness of educational research and receiving opinions on the existing trends. Study design: cross sectional study.
Methodology: The present study was conducted on 53 faculty members of clinical and non clinical departments. The participants were given a preformed questionnaire.
Results: 100% (i.e. all the participants) agreed that teaching learning methodology is a part of educational research. 58% of the participants thought that lack of knowledge of educational research was the reason for little research in medical education in India. 52% of the participants thought that technology should be used to make medical teaching more interesting.
Conclusion: From this study we can conclude that regulatory and institutional support is necessary to motivate the medical faculty in pursuing educational research.
Keywords: educational research, teaching learning methodology, medical curriculum.

Introduction
Medical schools traditionally rest on the three legged tool of research, education and service. Hence medical teachers are sometimes referred to as triple threat academicians. By this definition, medical teachers are original and productive investigators together with committed teachers and compassionate practicing physicians. In recent years, there has been an increasing call for medical schools to embrace a fourth obligation: “social responsiveness”. In recent years medical schools world wide have been increasingly confronted with the challenge of making their curriculum relevant to the needs of times. One response to this is an increased interest in research in medical education.

Medical education research is research conducted to investigate behavioral patterns in students, teachers and other participants in medical educational institutions. It is a growing field and its importance in south East Asia countries is yet to be fully established. Its requirements, obligations, advantages on teaching learning methods are yet to be fully exploited & acknowledged. Research in medical education usually deals with the scholarly analysis of content, input, processes and outcomes of educational programmes in order to improve their functioning by providing new evidence either for decision making or to advocate a change in the system. Over the years it has contributed substantially to the understanding of learning process by exploring and examining educational theories and curricular and pedagogic policies and processes, recognizing and examining trends in education, identifying difficult and problematic areas and providing descriptions of these with appropriate solutions. Most importantly research provides legitimate evidence to stakeholders on which educational decisions are made.

Research has a wider “social impact” – the ability to bring about changes – in teaching practice and subsequent clinical practice. Areas of major development in medical education research include basic research on the nature of medical expertise, problem – based learning (PBL), performance assessment, continuing education and assessment of practicing physicians.

The purpose of this study was to discover interest of the faculty members in KIMS Medical College, Amalapuram in medical education research and to learn
on the existing assets to develop educational research further.

**Methodology:**
A cross-sectional study was done on 53 faculty members working in KIMS, Amalapuram. Not all the participants have undergone the MET training. An informed written consent was taken before the commencement of the study.

A preformed questionnaire was prepared and given to all the participants. Single best response questions and multiple response questions were chosen to minimize non-response.

**Limitations:**
Those who did not completely answer (i.e. all the questions) were eliminated.

**Results and Discussion:**
53 persons were given the questionnaire out of which 50 persons completed it.

The percentages may not sum up to exactly 100% because of rounding off.

1) Can you identify which of the following falls under the scope of medical education research (please choose all that apply)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical curriculum</td>
<td>46(92%)</td>
<td>4(8%)</td>
</tr>
<tr>
<td>Student assessment</td>
<td>45(90%)</td>
<td>5(10%)</td>
</tr>
<tr>
<td>Teaching learning methodology</td>
<td>50(100%)</td>
<td>-</td>
</tr>
<tr>
<td>Attitudes and skills of students</td>
<td>36(72%)</td>
<td>14(28%)</td>
</tr>
</tbody>
</table>

Table – 1

92% participants agreed that medical curriculum is a part of medical education training, while 8% did not agree.

90% participants agreed that student assessment is a part of educational research, while 10% did not agree.

100% (i.e. all the participants) agreed that teaching learning methodology is a part of educational research.

72% participants agreed that attitudes and skills of students fall under the scope of educational research, while 28% did not agree.

2) Can you rate the following according to order of importance for the reason why there is so little research in medical education in India?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Lack of knowledge of educational research</th>
<th>Lack of funding</th>
<th>Lack of time</th>
<th>Lack of interest from faculty</th>
<th>Lack of administrative support and encouragement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of knowledge of educational research</td>
<td>29(58%)</td>
<td>10(20%)</td>
<td>4(8%)</td>
<td>4(8%)</td>
<td>3(6%)</td>
</tr>
</tbody>
</table>

Table – 2

The reason for so little medical education research taking place in India, is mostly lack of knowledge of educational research. The educators themselves are not aware about educational research. After this the next reason is lack of proper funding. If people working for a research project are given monetary facilities, may be many would be encouraged to do a research project and the situation might change.

The next in line is lack of interest from faculty (i.e. 8%) followed by lack of time and lack of administrative support and encouragement. If the faculty members are told the importance of educational research, proper funding is given along with encouragement to young faculty members, then the situation might change. If young staff is encouraged and given a chance it will definitely make an impact.

3) Rate which of the following are the reasons for getting actively involved in educational research as per your personal view.

<table>
<thead>
<tr>
<th>Reason</th>
<th>1st choice</th>
<th>2nd choice</th>
<th>3rd choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open an opportunity to do a higher degree</td>
<td>2(4%)</td>
<td>1(2%)</td>
<td>1(2%)</td>
</tr>
<tr>
<td>Allows present my findings at a national or international conference</td>
<td>1(2%)</td>
<td>2(4%)</td>
<td>2(4%)</td>
</tr>
<tr>
<td>Enhance chances of my promotion</td>
<td>3(6%)</td>
<td>1(2%)</td>
<td>2(4%)</td>
</tr>
<tr>
<td>Help bring about educational reform in my institution</td>
<td>4(8%)</td>
<td>3(6%)</td>
<td>3(6%)</td>
</tr>
<tr>
<td>Helps to enjoy my work more</td>
<td>3(6%)</td>
<td>5(10%)</td>
<td>4(8%)</td>
</tr>
<tr>
<td>Opens opportunities for collaborative research</td>
<td>2(4%)</td>
<td>3(6%)</td>
<td>4(8%)</td>
</tr>
</tbody>
</table>

Table – 3
It was seen that 22% participants thought that educational research helps to enjoy their work more while 18% thought that it opens opportunities for collaborative research.

18% participants feel that educational research helps to bring about educational reform in their institution while 12% participants thought that educational research improves the chances of promotion.

Amongst the 1st choice, 8% of the participants feel that educational research helps to bring about educational reform in their institution followed by enjoyment of the work.

As for 2nd choice, 10% participants feel that educational research helps to enjoy the work more.

For 3rd choice, 8% participants feel that educational research opens opportunities for collaborative research.

Overall it was seen that educational research helps to enjoy the work more followed by opportunities for collaborative research which indicates that people prefer work enjoyment and personal satisfaction more.

4) Do you think technology (video displays/simulation study) should be used to make medical teaching more interesting.

<table>
<thead>
<tr>
<th>Strongly support</th>
<th>Support don’t know</th>
<th>Oppose</th>
<th>Strongly oppose</th>
</tr>
</thead>
<tbody>
<tr>
<td>26(52%)</td>
<td>20(40%)</td>
<td>3(6%)</td>
<td>1(2%)</td>
</tr>
<tr>
<td>(0%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table - 4

It was seen that, maximum i.e. 52% thought that technology should be used and they agreed strongly. While none opposed it strongly.

40% supported the idea but 2% opposed it.

6% chose to remain neutral.

5) What do you think, which of the following will help to encourage educational research in your institution?

<table>
<thead>
<tr>
<th>Recognition or an award by dean</th>
<th>Funding to attend and present findings at an educational conference</th>
<th>Establishing research teams that could assist new faculty to get involved in educational research</th>
<th>A special workshop on educational research conducted by educational research experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>26(52.5%)</td>
<td>15(30%)</td>
<td>5(10%)</td>
<td>4(8%)</td>
</tr>
</tbody>
</table>

Table - 5

Maximum of the faculty thought recognition / award by the dean as the most encouraging factors.

This was followed by funding to attend educational conferences followed by special workshop on educational research and then by establishing research teams that would assist new faculty. Medical education research has gained importance in medical schools in developed countries. How ever, it has not received the same level of attention in Asian countries. The reasons behind this may be many and profound.

Firstly, the scope of medical education research (curriculum, student assessment, teaching – learning methods) has to be defined. When the educators themselves do not know what is included in educational research how can they pass the knowledge to their student.

The most important cause for lack of research is absence of appropriate funding i.e. the low socio-economic conditions found in most Asian countries. According to World Bank, about 66% of countries are “low – income economies” or “lower – middle income economies”.

If the medical educators are rewarded in the form of an award or hike in payment, promotion, funding to present the findings at a national or international conference may be then they will be encouraged to carry out the research.

If medical education is made more interesting by using simulators, videos etc, students along with their teachers will be more interested.

If educational research is established in the home institute, then it will be the best encouraging factor.

Conclusion:

From this study we can conclude that regulatory and institutional support is necessary to motivate the medical faculty in pursuing educational research. Apart from this proper appreciation of the researcher is also very necessary. It may be in the form of promotion, award, providing proper funds. Lastly, it is a most important job of the older faculty members to encourage their juniors.

References:

3 Spencer J. More of the same, only different. Medical education 1999;33:877-8.