

ORIGINAL ARTICLE

IMPACT OF INTRODUCTION TO RESEARCH ON MEDICAL STUDENTS' LEARNING ABILITY

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Background: The significance of research cannot be neglected in medical science; it is very essential part of current medical education system especially in modular or Problem-Based Learning (PBL) when junk of information is available on internet. The purpose of this study was to analyze the impact of short session of introducing the research module among medical students. **Method:** Using experimental research, quantitative research design was adopted. Before conducting a 3-hour short session with medical students an open-ended questionnaire was distributed among 80 students of 3rd year MBBS in order to know the extent of basic skills of doing research. Five open-ended questions were asked from students. The results were tabulated and analyzed on Microsoft Excel. Frequency and percentage were calculated for each item. Same questionnaire was distributed after the 3-hour lecture session. **Results:** Mostly medical students did not know about the type of research being practiced in medicine in the world. They also did not know about the relevant databases, appropriate referencing styles and the databases provided through HEC digital library. **Conclusion:** The course on information retrieval and management should be incorporated in the academic syllabi. Information literacy programmes should be conducted for all, especially the medical students.

Keywords: research, medical education, introductory module, medical student

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INTRODUCTION

The theme was revolved around the recommendation of General Medical Council recommendation in which it is emphasize that traditional curricula load should be cob by encouraging the students to enhance their knowledge, skills and make more interaction with latest modern technologies and resource.¹ From the last two decades rapid changes in information access and seeking behaviour has been increase due to flow of information through internet in the global world where information accesses and sharing is not remained a issue. But it enforce to every individual and at corporate level to think about to get access of quality of information that leads towards authenticity and reliability of that information. The significance of research cannot be neglected in medical science; it is very essential part of current medical education system especially in modular or Problem-Based Learning (PBL) where junk of information is available on internet world. So in this respect it is very important for a researcher to know and how to use the quality of information from authenticated and reliable sources.

The researchers could not found abundant literature on the topic. Few studies had been done in developed countries and very less in developing regions. Kume² stated that Special Study Module (SSM) was first offered at Eylul University School of Medicine in Turkey for undergraduate medical graduates that covered four areas: literature searching, clinical research, laboratory research, and lately-inaugurated

social responsibility, respectively in first years of undergraduate medical course. It also incorporated with SSM credit hour that motivates students to select such elective course in higher or later studies. Musal³ also gives supportive hand such kind of short course in same university as this university is the consider pioneer to implement the PBL in its curricula in 1997. It is essential part of undergraduate medical student in the university to learn, and search information independently, it also emphasis to develop research skills not only to do research in medical field but also enhance their skills under the domain of critical thinking, searching, processing and medical information. About learning resources through computer an interactive session was also arranged for undergraduate medical students at University of Leeds. The core focus of this session was to develop computer base searching skills, peer review of material, medical resources, critical thinking of material and effective use of technologies among medical students at undergraduate level.⁴ The significance of authenticated and reliable information cannot be neglected especially in clinical context where up to date information is required. Access of clinical information through latest tools and devices is becoming popular among young medical students and professionals.^{5,6}

The reading and access of clinical journal article is an art that, endorsed by Department of Epidemiology and Biostatistics, published a number of articles on the topic 'How to read clinical journals' in

Canadian Medical Association. An article published in Journal of American Medical Association (JAMA) in 1993 refers that a tutorial was organized in which medical students and professionals were involved on the topic: 'How to find evidence based information from medical literature and how that information apply into patient care'.⁷ Evidence based information (EBI) helps medical professionals in making best clinical decision by viewing on their different clinical approaches, searching and critical thinking skills.⁸ EBI practice has been discussed in many research articles, like 'Enabling, Empowering, Inspiring, Research and Mentorship throughout the year' which admires the efforts of Medical Library Association (MLA) regarding the development of research competencies among the professionals through continuing education program.⁹⁻¹⁰

The aim of this short session was to prepare medical students for research oriented environment and help them to prepare their assignments and presentation during undergraduate medical education from world leading medical databases.

METHODS

The quantitative research design followed by experimental research method was adopted to achieve the objectives of this study. Short session (3-Hours) with the class of MBBS 3rd year was arranged. Before starting the session an open-ended questioner was distributed among the 80 students. Four questions were

asked; results were tabulated and analyzed with the help of MS Excel by using simple percentage formula.

RESULTS

Before starting the session, first question was asked 'Do you know how to use computer?' All 80 students were aware how to use the computer and its application software regarding assignment preparation, data calculation and presentation.

In second question the students were asked: "Do you know how many types of researches are being practiced in Medicine?" Seventy-seven (96.25%) stated that they don't know about it, and only three were aware about this.

The next question which was "How many Medical Databases you know? List them." In response, only one student (1.25%) responded that he knows a few free medical databases.

In question four it was asked "Do you know about any referencing style which is being practiced in medical writing?" In response only two respondents listed 'Vancouver style'.

At fifth question it was asked: "Do you know to use HEC Digital library?" In response to this question all 80 students (100%) were unaware about how to use HEC digital library databases to access medical information from reliable and authentic sources. Results are tabulated as Table-1.

Table-1: Impact of short session on Research Module among medical students [n (%)]

No.	Question asked	YES	NO
1.	Do you know how to use computer?	80 (100)	0
2.	Are you aware of the types of researches are being practiced in Medicine?	3 (3.75)	77 (96.25)
3.	Do you know about the Medical Databases?	1 (1.25)	79 (98.25)
4.	Do you know about any referencing styles being practiced in medical writing?	2 (2.50)	78 (97.5)
5	Are you familiar to use HEC Digital Library?	0	80 (100)

DISCUSSION

Introductory research module should be part of curricula and taught in medical schools from 1st year of MBBS and remain in practice by assigning research topics in order to enhance and excel research skills among undergraduate students in medical profession. Denick⁵ endorsed that a practical training schedule which incorporated with research oriented environment, enabled medical students for evaluation, planning and methodology practice of laboratory practical at undergraduate level.

Changes are being made in medical curricula around the world and incorporating the modules in order improves the medical students' skills and way of thinking by using the modern tools and web applications.⁶ The benefit of integrated system is to engage the students in research activities and it enables the facilitators to modify such kind of modules according to the learning objectives. Medical students

are much more practical in their research work, and self-learning skills are improving. Search of literature by the students to expand the need and benefit of research at undergraduate medical academic curricula encourages them to learn from self-directed, Independent learning, and research skills.⁷

CONCLUSION AND RECOMMENDATION

Introductory Research Module increases the capabilities of the undergraduate students for self-learning and grooms them as active and life-long learners. It should be designed as a part of curricula of Medical Schools starting from MBBS 1st year and to remain in practice by assigning them research topics to enhance their research skills in medical profession under supervision of their teachers.

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