AWARENESS OF RESEARCH AMONG DENTAL STUDENTS IN CENTRAL INDIAMadhur Gupta¹, Arti Ajay Kasulkar²**HOW TO CITE THIS ARTICLE:**

Madhur Gupta¹, Arti Ajay Kasulkar. "Awareness of Research among Dental Students' in Central India". Journal of Evolution of Medical and Dental Sciences 2014; Vol. 3, Issue 25, June 23; Page: 6923-6927, DOI: 10.14260/jemds/2014/2840

ABSTRACT: BACKGROUND & OBJECTIVES: Research plays a vital role in health sciences as an integral part of health education. Hence, this study was undertaken with objective of assessing awareness and attitude regarding research in dental students of Central India. **METHODS:** A prospective, cross-sectional, questionnaire-based study carried out on 300 dental students (75 in each batch), selected by simple random sampling. Data was collected and analyzed for percentage, mean and standard deviation. **RESULTS:** 99.6% students responded; 99.3% students were aware about research, and 94% students were interested in research, 99.3% thought that research is important in medical field and 83% were willing to contribute to research project. Barriers for research were no extra time for research (57%) and lack of guidance (21.6%). 73.3% students agreed that research should be included as a part of dental curriculum. **INTERPRETATION & CONCLUSION:** Though dental students were aware of research and interested in research, significant barriers were deterring them from active participation in research. Provision of creating a favorable environment and building of sound knowledge and introducing the concept of research in dental students is must for the individuals and society.

KEYWORDS: dental students, research, questionnaire.

INTRODUCTION: Research, apart from being one of the key distinguishing features of an academic institution also tests the academic advancement and thus the overall skill of an individual. Apart from exploration, scientific communication is best possible with the help of research. Doing research and communicating the same helps not only in the future careers of the budding students but also helps in self-directed learning.¹ Research experience has been traditionally recognized as an important part of medical education. Despite this fact, research gets the least priority at the national, institutional or individual level. The main reasons contributed for this lack include lack of interest and knowledge regarding research and gross shortage of resources, both money and man power.

The staff and students are therefore hardly exposed to the concept and modern technologies which can be utilized for research. The post graduate students, in India undergo a combination of clinical training along with a thesis or dissertation. However the undergraduate curricula do not include the concept of research training. Currently for the undergraduate students this concept of research oriented medical education has made its origin and students are now exposed to programmes like short term studentships, however the actual awareness and attitude of the students regarding the same needs to be assessed.

Many researchers have discussed the attitude towards research and research education in medical schools.²⁻⁴ However as per our knowledge, there is little or no information regarding the same in dental schools. Hence with this in mind the current study was conducted to assess the awareness, interest and barriers regarding health research in dental students in Central India.

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MATERIALS AND METHOD: A prospective, cross-sectional, questionnaire-based study approved by Institutional Ethical Committee was carried out on 300 dental students (75 of each batch) were selected by simple random sampling. A structured and validated questionnaire was used for the study to collect information regarding age, gender, interest in research, participation in research, barriers in research, etc. Before starting the study, it was pretested on a group of 20 students, 5 students from each batch, who were excluded from final analysis. Prior to administering the questionnaire, the students were addressed regarding the purpose and process of data collection. Questionnaires were distributed among the participants after taking informed consent. Data was analyzed using EpiInfo for percentage, mean, standard deviation, t test. A p value of <0.05 was considered to be significant.

RESULT: In the present study, data was collected from 300 students (75 from each batch i. e I, II, III and final dental students). Out of which, 299(99.6%) students were aware about the term “research” and 298(99.3%) students were having interest in research, most common factor behind interest being self-motivation in 155(51.6%) students and for academic standing in 83(27.6%) students. Majority of students 196(65.3%) thought that research is important in medical field (Figure 1).

Medical literature for research purpose was searched by 101(33.6%) students in the college. 47.6% students had read medical journal out of interest. We also observed that very few students 79(26.3%) were aware about Indian Medical Medline Indexed Journal.

It was also found that 36(12%) students contributed to research in the past, 25(8.3%) as principal investigator. 11(3.6%) students were having their manuscript published in journals, 26(8.6%) students were currently involved in research project and majority of students 246(82%) were willing to contribute to research project as seen in Table I. 228(76%) students were of opinion that there is exposure to research in parent institute, 180(60%) students thought that it is adequate. Faculties of institute were supporting to students for research as per the opinion of 238(79.3%) students.

As evident in Figure II, barriers for research experienced by medical students were not having extra time for research by 171(57%) students followed by lack of guidance 65(21.6%). At the same time, 220(73.3%) students agreed that research should be included as a part of dental curriculum.

DISCUSSION: Due to the high demands placed on health professional, very little is left for research experiences. Also, academics and research are considered as an unattractive career option for the students pursuing medicine. This study was carried out to determine the general attitude of dental students towards research.

Most of the studies regarding the attitude towards research have been carried out in medical students. Hence, in the present study we have compared most of the data with that undertaken in those students. In our study, the response rate was 99.3% which is in concordance with Park SJ et al⁵ and Ejaj K et al⁶ however AlGhamdi KM et al⁷ reported comparatively low response rate. In the present study, 148 females (49.3%) and 152 (50.6%) males of age group 18 to 23 years (Mean = 20.16 years and SD = 1.35 years), were included. Ejaj K et al⁶ also found that gender was not found to be statistically significant factor for involvement in research ($X^2 = 1.911$, $p = 0.167$).

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Harsha Kumar HN et al⁸ has also found that >99% of the students were aware about the term “research” and having interest in research, most common factor behind interest being self-motivation and for academic standing which is similar to our study.

The findings of Siemens DR et al,⁴ AlGhamdi KM et al,⁷ and Amin TT et al⁹ stressing the importance of research by students as thought by them and their thought that they can plan and conduct research project is also similar to our study.

In our study, 33.6% students searched the medical literature for research purpose and 47.6% students had read medical journal out of interest. The findings of our study regarding reading a medical journal are comparable with Ejaj K et al.⁶ It was also noted that 8.6% students were currently involved in research project and majority of students 82% were willing to contribute to research project. These findings are similar with that of Mitra S et al² and Park SJ et al.⁵

60% of the students felt that there is adequate exposure to research in parent institute which is similar to the study conducted by Sekhar DS et al.¹⁰ Our results regarding barriers for research, i.e. not having extra time for research followed by lack of guidance, and inadequate facilities for research are similar to that of Amin TT et al,⁹ and Sekhar DS et al,¹⁰ and Mosafa SR et al.¹¹

It was noticed in present study that 73.3% students were of opinion that research should be included as a part of their study curriculum. This is in concordance with Ejaj K et al,⁶ and Sekhar DS et al;¹⁰ however Park SJ et al⁵ and Harsha Kumar HN et al⁸ found that there was no widespread support from students for having research training as a compulsory part of the medical curriculum.

Our study also indicated that the attitude and awareness of students regarding research increased as they progressed through their studies. Though our study encountered some barriers for students’ participation in research, provision of creating a favorable environment and building of sound knowledge and introducing the concept of research in dental students is must. The mindset of the students in this generation is that routine teaching is not very exciting and hence they are to be nurtured with some supplementary educational programs. Also the opportunity of research was of less consideration when choosing some specialty in their future school. The inculcation of research knowledge could be done at the initial phase itself i.e. first year so that they have ample opportunities to progress in this field as they climb the ladder before finishing of their dental school. Hence, research should be incorporated in dental curriculum along with involving students in faculty research and conducting student research workshops and conferences to prepare future scientists and researchers.

CONCLUSION: In our study, we found that though majority of students were aware of research and also interested in research, but some significant barriers were deterring them from active participation in research. Apart from breaking the barriers encountered impartment of knowledge and conducting programs for the awareness of research which would help not only individuals but the society as a whole should to prepare future scientists and researchers among dental students.

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Fig. 1: Factors behind interest in research in dental students

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Fig. 2: Barriers in research in dental students

Characteristics	I BDS (n=75)	II BDS (n=75)	III BDS (n=75)	IV BDS (n=75)
Contributed to research project	3 (4.1%)	12 (16%)	10(13.5%)	11(14.6%)
Exposure to research in past	46 (62.2%)	49 (65.3%)	33 (44%)	52 (69.3%)
Willing to contribute to research project	67 (91.4%)	68 (90.6%)	55 (75%)	56 (83.7%)

Table 1: Participation of dental students in research

AUTHORS:

1. Madhur Gupta
2. Arti Ajay Kasulkar

PARTICULARS OF CONTRIBUTORS:

1. Professor & Head, Department of Biochemistry, NKP Salve Institute of Medical Sciences & Research Center, Nagpur.
2. Assistant Professor, Department of Forensic Medicine, NKP Salve Institute of Medical Sciences & Research Center, Nagpur.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Madhur Gupta,
Professor & Head,
Department of Biochemistry,
NKP Salve Institute of Medical Sciences & Research Center,
Digdoh Hills, Higana Road, Nagpur-440019.
Email: drmadhur20@rediffmail.com

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