



## RESEARCH ARTICLE

### CURRENT STATUS, KNOWLEDGE AND ATTITUDE TOWARDS RESEARCH AMONG INTERNS OF DENTAL COLLEGES IN PUNE, MAHARASHTRA

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#### ABSTRACT

**Background and objectives:** World today is moving towards “Evidence based Medicine” and to promote this, provision of only academic training is not sufficient. In countries like India, Undergraduate dental students have very less exposure to fundamentals of research which may lead to a compromised scientific acumen. This prevents them from conducting and appreciating scientific research during their advanced professional careers and ultimately impacts the quality of research in the specialty.

Hence this multi-centric study was conducted to assess the current status, knowledge and attitude of interns of dental institutes of Pune, Maharashtra towards research during Under graduate dental course.

**Methodology:** After obtaining due permissions, data was collected from 268 students doing internship in three different dental institutions in the city of Pune, Maharashtra. A structured questionnaire was first validated and then used for the same. The data were analyzed using descriptive analysis.

**Results:** Results indicated low awareness and knowledge regarding research basics amongst the interns. Perceived importance of research was also moderate to low amongst the interns. However, more than three-fourth of the participants opined that there should be basic research training during their internship program to facilitate research activities.

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## INTRODUCTION

Research is very essential and does not only benefits the researchers but also the Institute, the University and in turn the patients who will be receiving the results from it. (Aditya, 2017) It helps the researchers face the difficulties of choosing a topic, planning it, collection of data, presenting it, analysing and interpreting the data and then writing a report. Unfortunately, health research is seen to have a low priority in countries like India. Students seem to be reluctant to undertake research as they have a fear in their mind to do it considering their lack in the knowledge and exposure for research. One long-term strategy for promoting health research is to target medical and dental students early in their careers. (Aslam et al., 2005) In the field of dental education in India, internship is the time where students are exposed to practical clinical skills. Probably, this could also be the time when the students may be

exposed to concept of basic research methodology to equip them with scientific temperament. This research experience can help improve students' skills in searching and critically appraising the medical literature, independent learning, and writing research papers. (Houlden et al., 2004; Frishman, 2001) One preliminary step in this direction would be to analyse the perspectives of dental students towards research in present times. It is also important to analyse the hindrances in the way of Under graduate research. Is it lack of training and knowledge, time funding, guides or is it because of any other reason that research is given such a low priority during the Under graduate training. Hence, this study was planned to analyse the current status, knowledge and attitude towards research among interns of Dental Colleges in Pune, Maharashtra.

## MATERIALS AND METHODS

By using Krejcie & Morgan table<sup>5</sup> published in 1970 the sample size determined for this study was 169. However,

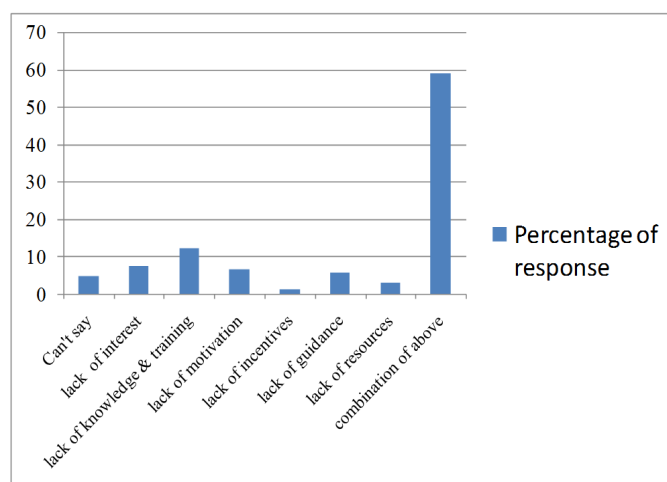
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considering the number of institutions aimed to be included in the study, a sample size of at least 200 was targeted. A cross-sectional survey study was carried out between January to May, 2017 in three Dental Colleges in Pune; Maharashtra, India. A predesigned and pretested questionnaire was used in this study which consisted of three parts. The first part pertained to the demographic information of the Interns like age, gender and marital status. The second included questions related to knowledge, attitude and practices about research methodology. The last part of the questionnaire was related to the difficulties faced by the Interns in conducting medical research. After the due permission from the respective Deans and institutional research committees, the potential participants i.e. the interns of three Dental colleges in Pune were addressed in a group in their respective institutions. A total of 263 interns gave their consent to participate in the study and were personally handed over the questionnaire forms by the investigators and their queries were addressed, if any. Using Statistical Package of the Social Science software (SPSS) 21.0, descriptive statistics and chi square tests were used to analyze the data.

## RESULTS

Out of 330 interns approached from the three dental institutions, 268 participated in the study which led to a reasonably decent response rate of 81.21% to the survey. Out of 268 participants, 45 were males (16.8%) and 223 were females (83.2%) with a mean age range of 23.5 years. Although 97% of the participants agreed that research is an important part of the health care education, only about 65% of them were aware of even a basic procedure of conducting research that is obtaining permission at institutional level. In fact 41.7% were unaware of existence of institutional research board. 218 (81%) of the participants were in fact unsatisfied or only partially satisfied with the current training given in research methodology during BDS course. 208 (77.6%) felt that additional training in research methodology must be provided during internship and as many as 229 believed that conducting/assisting a research project in internship shall be helpful in conducting research during their Post graduation or clinical practice. Graph 1 represents the hurdles as perceived by interns in conduction of research at Under graduate level. Some of the major hurdles perceived included lack of knowledge, training and guidance.



**Graph 1. Perceived hurdles by participants in conducting research during the Under graduate course**

## DISCUSSION

Research is an utmost important aspect of health care profession. Unless and until health care professionals are able to conduct and appraise research in their respective fields, it is impossible to deliver updated and efficient health care to our patients. However, just like clinical aptitude, aptitude for research shall also be invoked in the health care students from an early stage of their studentship. Unfortunately, research has been a highly neglected area in dentistry, especially at the Under graduate level. To top it, in most of the Indian universities, if a student chooses to go for Post graduate course, he/she has to select a research topic for dissertation in the first six months of the course. This poses a challenging situation for the student who has had a minimal exposure to research activities during Under graduate level. It will not be wrong to say that as a result, many a times they select a random topic or topic of their guide's interest. This definitely doesn't seem to be an encouraging scenario for the professional upliftment of the students and eventually of the specialty at large. The high response rate to this survey probably indicates the realization of the relevance of this issue amongst the Under graduate students. Internship is the time when the students get to sharpen their clinical skills and probably this could also be the time when they can be exposed to the basics of research. Almost all of our participants (97%) realized the importance of research but only about half of them (61%) were oriented to the basic steps required for it. This shows that although there is some motivation, lack of knowledge, awareness and guidance for conduction of research exists amongst the interns. Similar results were obtained in a study done in Madison, USA; in which out of 143 Post graduate students, 85% felt that research experience was desirable, 48% were interested in pursuing research during residency, and only 8% were active in research. (Temte *et al.*, 1994) These observations including may indicate that lack of training in research is more or less an universal problem. However, two studies that were carried out in Canada and Pakistan reflected a contrasting attitude of Postgraduate students that a majority of time in residency should be spent learning the clinical aspects of their specialty and they were unwilling to sacrifice personal time for research projects. (Silcox *et al.*, 2006; McCrindle and Grimes, 1993) In the present study, more than 80% of the interns were unsatisfied with the current training given in research in their respective institutions and felt the need to conduct or assist a research project during their internship. When asked about hurdles as perceived by the interns in conducting research projects, many aspects were sited, including lack of training, motivation, incentives and guidance. In certain previously conducted studies also, authors have pointed out similar findings. In a research conducted in Maharashtra by Giri P. *Et al* it was found that lack of time due to vast curriculum of Post graduate subjects (59.5%), lack of research curriculum (25%), and inadequate facilities (25.8%) were stated as major obstacles for pursuing research during their residency. (Giri *et al.*, 2014) In another study conducted in a Medical institute in Karnataka, authors indicated that conduction of Research training workshops and integration of research in UG curriculum may be a motivating factor for budding doctors to include research in their professional careers. (Shilpashree *et al.*, 2016) A combined and dedicated effort put by institutes; teachers and students may be effective in improving the present scenario. For example, All the institutions included in this study are considered excellent in this region and do have Post graduate course in different specialties of Dentistry. With proper

planning and motivation, it could be possible to make the interns do at least on short term research project during their internship. There is no denial that there could be few hurdles faced in this implementation such as lack of resources and requirement of additional work put by the faculty, but the effects will be of much greater significance.

### Conclusion

This cross-sectional study indicated that although the interns are sufficiently aware of the importance of research, there seems to be a lack of knowledge and training leading to almost negligent research activity at the Under graduate level. This may warrant necessary steps on the behalf of authorities to take appropriate steps like conduction of research workshops for interns to encourage the conducive environment for Under graduate research in the dental institutions.

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