



## Assessment Of The Knowledge, Awareness And Attitudes Of Dental Interns Regarding Evidence Based Dentistry

### KEYWORDS

Evidence based dentistry, Dental Students, survey.

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### ABSTRACT

*Introduction:* Since the 1990s, there has been an increasing interest in Evidence-Based Dentistry (EBD) internationally and from a wide variety of dental groups with the ultimate goal of improving patient care. Thus, this study was planned to evaluate knowledge, awareness and attitude of the Dental Interns of Sumandeep Vidyapeeth towards EBD.

*Materials and methods:* A total of 77 Interns were selected and were asked to fill a questionnaire regarding EBD.

*Results:* The results showed that 63.6% of the Interns claimed to have attended EBD workshop whereas 36.4% never attended any workshops. When asked about the components of EBD, 71.43% answered "evidence based sources". A significant % of participants (64.9%) proved that systematic reviews provided the strongest evidence in the 'Hierarchy of Evidence'.

*Discussion and Conclusion:* Despite good attitudes about EBD, there is still a deficiency in student's knowledge, so an appropriate plan is suggested to further resolve this problem.

### Introduction:

Evidence-based dentistry is the "integration" and "interpretation" of the available current research evidence combined with personal experience. It allows dentists, as well as academic researchers, to keep abreast of new developments and to make decisions that should improve their clinical practice<sup>1</sup>.

The 'new improved' definition is "the integration of best research evidence with clinical expertise and patients values", now includes the patient in the decision making process and has added value to the significance of individual clinical judgment<sup>2</sup>.

An evidence-based approach has several advantages. One is that it will serve patients better because only tested procedures will be endorsed. A second is that it will increase the standing of the profession because it will ensure that proven treatments are offered. Clinicians can convert these information needs into answerable questions; track down with maximum efficiency the best external evidence (relevant research) with which to answer them; critically appraise that evidence for its validity (closeness to truth) and usefulness (clinical applicability); apply the results of the appraisal in health care practice; and evaluate performance<sup>3</sup>.

The graduates from dental schools have to be up to date with the best current practices in dentistry at the time they graduate as some of this knowledge gradually becomes out of date compared to new information and technology appear. The evidence-based education must promote understanding of both basic and applied science, the management of uncertainty, and the development of new knowledge. As a result, the graduate dentist would willingly update and change clinical procedures over his or her lifetime of clinical practice based on the new knowledge<sup>4</sup>.

In a recent article, Hendricson et al. stated that "As more

dental schools implement EBD training, strategies are needed to assess the effectiveness of these efforts and determine the competence of trainees."<sup>5</sup>

Since 2007, EBD is being taught as a subject in undergraduate curriculum in Sumandeep Vidyapeeth. It is important to know about knowledge, attitude and awareness of Dental Interns after learning EBD for four years during their under graduation. Hence, the aim of the

### Materials and methodology:

This study was a cross sectional survey. The questionnaire consisted of closed questions and free text sections related to awareness of dental interns towards EBD<sup>7</sup>. Written permission was obtained from the Principal after obtaining the approval of the institutional ethics committee, Sumandeep Vidyapeeth. All the Dental Interns who were present during the month of October-November 2013 were included in the study and had completed their under graduation from K.M.S.D.C.H. Interns who were not willing for participation in the study and who were not present during the conduction of the study were excluded. The interns who completed their graduation from other institutes were also excluded. Informed consent was taken. The questionnaire form was taken to the Interns in each Department where they were posted by the principal investigator. The Interns were asked to fill the questionnaire and those were collected on the same day.

### Results:

A total of 85 Interns were included in the study as per the list obtained by the student's head office. Out of which 77 participants took part in the study as per the inclusion criteria. The mean age of all the Interns was 22.29 with SD = 0.965.

The results showed that 63.6% of the interns had attended workshops on evidence based dentistry whereas 36.4% of them had not attended any workshops. 89.6% of the in-

terns did not refer to any of the Journals. 6.5% of the interns referred to Journal of American Dental Association (JADA), 1.3% of them referred the Evidence Based Dentistry Journal (EBD) and 1.3% referred to the Journal of Periodontology (JOP). The majority of them chose "Evidence Based Medicine Resources" (71.43%) and 48.05% respondents were able to identify "patients' choice" as another component. The rest of them chose "Senior consultant's opinions" (45.45%) followed by "WHO report" (23.37%) 9.09% of them selected famous textbooks.

A substantial number of Interns chose the systematic reviews (64.9%) as the strongest evidences amongst the hierarchy of evidence. 15.6% showed the cohort studies followed by cross sectional studies (13%). A significant majority of the Interns stated that they had no readily available access to EBD resources (54.55%). 31.16% of them felt that this concept was a threat to clinical freedom/judgement, 27.27% did not believe that evidence was universally applicable and 25.97% felt that it is a research which is not applicable.

When asked about contradicting evidence, a significant number of interns agreed that they would evaluate the evidence (66.2%), few suggested that they would discard the evidence (16.9%) and few suggested believed that they would follow the evidence (15.6%). A significant majority of respondents partially agreed (49.4%) that the concept of evidence-based dentistry was applicable to their culture 13% strongly disagreed that the concept was not applicable to their culture. When asked whether patients were willing to participate in evidence based clinical decision making, 19.5% of them strongly agreed and 46.8% of them partially agreed whereas 27.3% disagreed and 6.5% of them strongly disagreed the statement. Finally, when they were asked what percentage of patients would willingly take part in clinical decision making. 39% of them believed that only 25% of patients would take part whereas 28.6% believed only 10% of patients would take part and only 1.3% of them agreed that 100% of patients would take part in the clinical decision making.

#### Discussion:

Evidence based medicine has been practicing since almost more than a decade and since the 1990s, there has been an increasing interest in Evidence-Based Dentistry internationally and from a wide variety of dental groups with the ultimate goal of improving patient care. Current dental students are expected to be lifelong learners, adept at critical thinking and evidence-based dental practice. A total of 77 Interns were included in the study as per the inclusion and exclusion criteria. The questionnaire consisted of closed questions and free text sections related to awareness of dental interns towards EBD. This study was similar to a study done by Zybs Fedorowics et al in 2004<sup>7</sup> in which he concluded that the results reveal an incomplete understanding as the majority did not consider patients' values a component of EBD and a large number of them considered that EBD is not applicable in their culture.

EBD has been taught as a regular curriculum in Sumandeep Vidyapeeth since 2007. Hence when they were asked whether they had attended any workshops, a positive response was seen. The results showed that 63.6% of the interns had attended workshops on various topics regarding evidence based dentistry and a significant result was seen when majority of them chose "Evidence Based Medicine Resources" (71.43%) and 48.05% respondents were able to identify "patients' choice" as another compo-

nent. A recent survey in JADA reinforced a lack of awareness of the three components of EBD by many dentists in the developed world<sup>8</sup>. Thus, it showed that our participants still had a good knowledge about EBD.

This was also proved when they were asked about the hierarchy of evidence in EBD. A substantial number of Interns chose the systematic reviews (64.9%) as the strongest evidences amongst the hierarchy of evidence. 15.6% showed the cohort studies after systematic reviews followed by cross sectional studies 13%. A study done by Werb et al in 2004 suggested that evidence-based health care interventions increased student knowledge of medical topics and their ability to search, evaluate, and appraise medical literature<sup>8</sup>. Thus teaching EBD during the undergraduate curriculum proved to be effective in understanding the level of evidences and implementing the same in their clinical practice.

However, the fact that 89.6% of the interns did not read any journals and only 6.5% of them were restricted in reading 'Journal of American Dental Association', explained their limited awareness and lack of interest in reading journals as well as lack of curiosity.

However, when asked about contradicting evidence, a significant number of interns agreed that they would definitely evaluate the evidence (66.2%) in their clinical practice. A study done by Alan et al in 2008 suggested that over a period of four years, a total of 259 dental students with the capacity of online resources were able to locate, access, and appraise information pertinent to oral health issues and the practice of dentistry<sup>9</sup>. A significant majority of respondents partially agreed (49.4%) that the concept of evidence-based dentistry was applicable to their culture which is suggestive of positive move towards EBD.

A study done by Prabhu in 2012 concluded that the post-graduates although familiar with the sources of evidence based dentistry; their knowledge of the terms used in evidence based dentistry is limited<sup>10</sup>. Similarly, to enlighten the students more about evidence based dentistry; they need to have thorough knowledge and understanding during their undergraduate teaching course.

Thus, this study showed the attitude and awareness about Evidence based concept in dentistry exhibited by some of the participants with a genuine desire to learn more about this emerging field.

However, the study was limited to interns of one dental college only and so the sample size is relatively small. Further given survey can be conducted for interns of other colleges or of different batches and can be compared.

#### Conclusion

After learning EBD during the undergraduate dental programme, students are well aware with the concepts of EBD and had significant knowledge for the subject. Positive attitude towards EBD can be further defined.

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