

BRIEF REPORT

Knowledge of evidence-based dentistry among academic dental practitioners of Bhopal, India: a preliminary survey

Aishwarya Singh^{1*}, Sudhanshu Saxena², Vidhatri Tiwari³, Utkarsh Tiwari⁴

¹Department of Public Health Dentistry, People's College of Dental Sciences and Research Centre, People's University, Bhanpur, Bhopal, Madhya Pradesh, India; ²Department of Public Health Dentistry, Hitkarni Dental College, Jabalpur, Madhya Pradesh, India; ³Department of Public Health Dentistry, People's Dental Academy, People's University, Bhanpur, Bhopal, Madhya Pradesh, India; ⁴Department of Pedodontics and Preventive Dentistry, People's Dental Academy, People's University, Bhanpur, Bhopal, Madhya Pradesh, India

Abstract

This study aimed to characterize the knowledge of evidence-based dentistry (EBD) among dental faculty members in the city of Bhopal in central India. A cross-sectional questionnaire was administered at two dental colleges in Bhopal City. All dental faculty members who were present on the day of the study and who agreed to participate were included in the study. A total of 50 dental faculty members returned the questionnaire. Six Likert-type questions were asked, and the percentages of various responses were used for analysis. Sixteen faculty members (32.0%) strongly agreed that EBD is a process of making decisions based on scientifically proven evidence. Fifteen faculty members (30.0%) strongly disagreed or disagreed with the item stating that the best and quickest way to find evidence is by reading textbooks or asking experienced colleagues. Thirteen faculty members (26.0%) strongly agreed that EBD allows dentists to improve their scientific knowledge and clinical skills. It is recommended that EBD be included in undergraduate and postgraduate curricula and in intensive continuing dental education programs that are conducted for dental faculty members.

Key Words: *Clinical competence; Dentists; Evidence-based dentistry; Dental faculty; Questionnaires*

An evidence-based dentistry (EBD) module has not yet been formally standardized by the Dental Council of India, and EBD remains untaught at both the undergraduate and postgraduate levels. With this in mind, a pilot study was undertaken to evaluate the knowledge of dental faculty members in the city of Bhopal in central India regarding EBD. A cross-sectional study was conducted using pre-tested self-administered questionnaires [1] administered to dental school faculty members in Bhopal, India to assess their knowledge of the basic principles and methods of EBD.

Two of the six dental colleges in Bhopal were randomly selected, and the questionnaire was distributed to the available

dental faculty members. Direct interview was used to explain the questionnaire and answer any questions relating to it. Of a total of 62 dental faculty members, 50 participated in the study. Simple percentages of the various responses were used for analysis

Table 1 presents the distribution of responses to this questionnaire. Of the 50 respondents, 16 (32%) strongly agreed that EBD is a process of making decisions based on scientifically proven evidence. Fourteen faculty members (28.0%) strongly agreed with the item stating that EBD involves a series of steps including identifying the clinical question, finding the answer/evidence, assessing the validity of the evidence, and ultimately applying it if clinically suitable. Sixteen faculty members (32.0%) strongly agreed with the item stating that EBD benefits patients by improving the quality and effectiveness of clinical treatments. However, 30 respondents (60.0%) had the incorrect impression that all evidence from articles

*Corresponding email: aishley7@gmail.com

Received: October 28, 2014; Accepted: June 14, 2015;

Published: June 15, 2015

This article is available from: <http://jeehp.org/>

Table 1. The responses of 50 dental faculty members of two dental schools in Bhopal, India to questionnaire items assessing their knowledge of evidence-based dentistry

Items	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)
Evidence-based dentistry is a process of making decisions based on scientifically proven evidence.	3 (6.0)	0 (0)	4 (8.0)	27 (54.0)	16 (32.0)
Evidence-based dentistry involves a series of steps, moving from identifying the clinical question, finding the answer/evidence, assessing the validity of the evidence, to applying it if clinically suitable.	3 (6.0)	1 (2.0)	1 (2.0)	31 (62.0)	14 (28.0)
Evidence from all published articles in scientific journals can be used in evidence-based dentistry.	5 (10.0)	5 (10.0)	10 (20.0)	25 (50.0)	5 (10.0)
The best and quickest way to find evidence is by reading textbooks or asking experienced colleagues.	5 (10.0)	10 (20.0)	10 (20.0)	21 (42.0)	4 (8.0)
Evidence-based dentistry benefits patients by improving the quality and effectiveness of clinical treatments.	3 (6.0)	0 (0)	3 (6.0)	28 (56.0)	16 (32.0)
Evidence-based dentistry allows dentists to improve their knowledge and clinical skills.	1 (2.0)	0 (0)	5 (10.0)	31 (62.0)	13 (26.0)

published in scientific journals can be used in EBD. Twenty-five respondents (50.0%) agreed or strongly agreed with the item stating that the best and quickest way to find evidence is by reading textbooks or asking experienced colleagues.

Only some faculty members (32.0%) were able to clearly identify that EBD is a process of making decisions based on scientifically proven evidence, which strongly contrasts with the results of studies conducted among Iranian [2] and Malaysian dentists [1], of whom 82.0% and 94.2%, respectively, correctly responded to this item. This finding indicates that Indian dentists are unable to define EBD and show a fundamental deficit in essential modern clinical skills that are sought after by knowledgeable patients and technologically savvy dental students, who hope to identify clinicians with the best practices and the most up-to-date clinical decision-making. In other questionnaire items, Malaysian [1] and Iranian [2] dentists were also found to have more knowledge about EBD than the Indian dentists surveyed in this study. This finding shows that the dental faculty members of Bhopal have not been exposed to important aspects of EBD. Half of the respondents had the incorrect impression that evidence from all articles published in scientific journals can be used in evidence-based practice. This reveals their failure to recognize the strengths, weaknesses, and types of available evidence. Ideally, clinicians should consult electronic databases, such as PubMed and Cochrane, and seek evidence from systematic reviews or meta-analyses of randomized control trials when possible, in order to identify the best current evidence that can help guide decision-making [3]. The results of the present study are comparable to those of a study of dental faculty members in Nigeria, who had little information about the principles of EBD, although they were aware of it in general

[4]. The use of self-reported data containing a variety of potential sources of bias should be noted as a limitation of this preliminary survey.

The major benefits of evidence-based practice are as follows: students and the entire dental team are informed about the latest available treatments, treatment decisions are easier to justify to the students, and the entire dental team provides the best available treatment to patients. EBD is a relatively new paradigm in Indian dentistry and therefore may not be a familiar concept for every dentist. According to the above results, EBD educational programs should be developed for dental practitioners in India in order to enhance their knowledge and skills. Follow-up studies may focus more on EBD-related behaviours, attitudes, and practices that could improve the current state of knowledge, along with potential barriers to doing so. In conclusion, the above results offer important directions for improving EBD in Indian dental colleges and improving and modernising dental education overall.

ORCID: Aishwarya Singh: <http://orcid.org/0000-0002-7647-8612>; Sudhanshu Saxena: <http://orcid.org/0000-0001-6387-984X>; Vidhatri Tiwari: <http://orcid.org/0000-0003-2684-2786>; Utkarsh Tiwari: <http://orcid.org/0000-0003-4373-5894>

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

SUPPLEMENTARY MATERIAL

Audio recording of abstract

REFERENCES

1. Yusof ZY, Han LJ, San PP, Ramli AS. Evidence-based practice among a group of Malaysian dental practitioners. *J Dent Educ* 2008;72:1333-1342.
2. Navabi N, Shahravan A, Pourmonajem S, Hashemipour MA. Knowledge and Use of Evidence-based Dentistry among Iranian Dentists. *Sultan Qaboos Univ Med J*. 2014;14:e223-230
3. Rabe P, Holmén A, Sjögren P. Attitudes, awareness and perceptions on evidence based dentistry and scientific publications among dental professionals in the county of Halland, Sweden: a questionnaire survey. *Swed Dent J*. 2007;31:113-120.
4. Akadiri AO, Adeyemo WL. Evidence-based dentistry in a developing economy: The Nigerian example. *Open Dent J*. 2010;4:51–54. <http://dx.doi.org/10.2174/1874210601004020051>