

Bringing Evidences from Research to Clinics

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Citation of this Article: Dr. Surangama Lehri, Dr. M.K Sunil, Dr. Upender Malik, Dr. Priya, Post Graduate, Dr. Lakshya Vishnoi, Dr. Anushka Jain, “Bringing Evidences from Research to Clinics.”, IJDSQR – June - 2021, Vol. – 3, Issue - 3, P. No. 23-26.

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Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

In the changing times, the attitude of both clinicians and patients towards the treatment given is taking new dimension. Patients are more curious about the various agents used and medications prescribed to them. Moreover, the world of web has opened new gates for common people to explore the cause and therapies of various pathologies.

The ability of a practitioner to solve reply all the peculiar doubts is solely dependent on his/her capability to read and interpret the literature. Thus, it has become mandatory for practicing dentists to be well-versed with

the concept of evidence-based dentistry and bring it into clinical practice.

The foundation of EBD was introduced with the definition put forward by David Sackett as “integrating individual clinical expertise with the best available external clinical evidence from systemic research”. Though, over the years, many changes were incorporated in the concept of EBD, still, the practical application of evidence-based dentistry is minimal in a country like India.

The increasing demand for EBD, however, needs to be considered to render top notch quality treatment and satisfaction to the patients.

Keywords

Evidence Based Dentistry(EBD), systematic review, meta-analysis

Introduction

The American Dental Association highlighted the basics of evidence-based dentistry in its definition, “an approach to oral health care that requires the judicious integration of systemic assessments of clinically relevant scientific evidence, relating to the patient’s oral and medical condition and history, with the dentist’s clinical expertise and the patient’s treatment needs and preferences”.^[1]

In more vast terms, evidence can be understood as facts or proofs in support of a conclusion or statement, thus, evidence in dentistry comes from relevant research and meta-analysis of the available literature. EBD relies upon three important aspects: the best available scientific data, dentist’s clinical finesse, and, patient’s needs and preferences. Combining these core requirements will enable a practitioner to deliver a more focused and better treatment.^[2,12]

However, over-occupied dentists can’t manage time to browse through bulk of dental journals and electronic libraries available. Moreover, the conclusion of all the researches might not be similar. Therefore, dentists are not only expected to keep themselves updated with the latest data but should also have the ability to discern the valid results.^[3]

Even though evidence-based dentistry requires patience and could prove to be a time taking process, but the sound and reliable results renders clinician the sheer confidence to answer his/her patient’s queries and his/her own clinical doubts.

Why evidence-Based dentistry is needed?

The need for evidence-based dentistry is primarily to encourage the general practitioners to search

and analyze the available evidence and apply it to routine clinical problems.

Dentistry is revolutionizing every minute and keeping alongside with the developments can be daunting for a practicing dentist, there fore, understanding how to interpret research results, and some practice in reading the literature in a structured way, canturn the dental literature into a useful and comprehensible practice tool^[4,11]

Let us take an example to elaborate why EBD is needed to practice modern dentistry:

Tobacco chewing causes pre-cancerous and cancerous changes in oral cavity. But, if it is so, then why not every tobacco chewer presents with such changes? Why do some non-tobacco chewers develop oral carcinoma? Considering these two points, how can tobacco be stated as an etiology for oral carcinoma.

The above example justifies that each individual responds differently to the etiologies leading to oral carcinoma as well as other diseases. Evidence based research allows the dentists to understand the different presentation of signs and symptoms in patients and natural response of each individual towards a diseases process.

Practicing evidence based dentistry

Practicing evidence-based dentistry is based on developing questions and finding their answers based on systematic research.

Main steps of EBD are:^[4,5,6]

1. Framing the question

- The most basic requisite for practicing EBD is defining the question, irrespective of the situation that promoted to search information. For example:
- A patient report with reduced mouth opening and masticatory muscle tenderness. Her main

concern is her inability to eat food properly. On examination, her occlusion is compromised.

- So, in such a clinical scenario, should a clinician consider “occlusion” to be the etiology for presenting symptoms or consider “malocclusion” to be the result of acute pain in masticatory muscles? And should treatment be directed towards the symptoms or towards the etiology?

Questions

- What are the possible etiologies for masticatory muscle tenderness?
- What is the relation between occlusion and masticatory muscle tenderness?
- How can symptoms be relieved?
- Will relieving symptoms resolve the etiology?

1. Search for evidence

There are ample sources from where evidence could be collected. Published articles in medical and dental journals are now easy to search online, using electronic databases such as Medline. Some common sources of evidence are:

- Colloques
- Books
- Journals
- Internet

Electronic database search is the latest way of collecting evidence from published literature. However, a thorough knowledge and understanding of the rules for effective searching through databases should be acquired by one.

2. Interpret the evidence

Interpreting the evidence is the most tiring and lengthy step of practicing EBD. Interpretation should be based on an understanding of the results published in the literature as well as the conclusions drawn from it. Three aspects that are key to interpreting the evidence are:

- The size or duration of signs and treatment clinically important?
- Are observed results real or incidental findings?
- Stability of results if taken another similar sample or subjects?

Addressing these fundamentals are pre-requisites for interpreting the evidence drawn from different sources.

3. Act on the evidence

Action should be made after correlating the questions raised and the undertaken search.

Beneficiary of Evidence-Based Dentistry

- Public receives the maximum benefits from evidence-based practice in the form of better treatment plans and prognosis. EBD provides a sense of satisfaction to the curious minds of patients who beforehand gather information regarding their symptoms via web^[7,8,9]
- Evidence based practice enables clinicians to thorough themselves with the advancements in treatment modalities and concepts that lead to disease. It also helps in developing a better understanding of the patient’s needs, thereby, building a better doctor-patient relation.^[9,10]
- Evidence Based practice also encourages researchers to publish more of the work and maintain a clinical perspective.

Conclusion

Even today, Evidence based dentistry in the embryonic stage of clinical dentistry. Specially, in India, where patient load per dentist is huge, it becomes hard for practicing clinicians to brush through the literature to find evidences from conducted studies. Moreover, couple of studies conducted amongst the clinicians concluded that most of the dentists in India are unaware of the Evidence-based concept. Though, the upcoming undergraduates and postgraduates have faint idea in the

context but the practical application of EBD, still needs attention.^[9,10]

Information-explosion and consumer demand are changing the dimensions of dentistry; therefore, clinicians need to understand the increasing demand of the patients for information regarding the pathology and its treatment.

Evidence based dentistry allows rendering treatment backed with scientific proofs, and thus, it is becoming the demand of the modern society to bring evidences from research into clinics

References

1. Hackshaw AK, Paul EA, Davenport ES. Evidencebased Dentistry: What is it and How to practice it. In: Hackshaw AK, Paul EA, Davenport ES., editors. Evidence-Based Dentistry – An Introduction. Oxford: Blackwell Munksgaard; 2006
2. Developing Evidence Based Dentistry Skills:howtointerpret randomized clinical trials and systematic reviews, Kiriakou et al. Progress in Orthodontics 2014
3. Evidence-Based Dentistry Resources for Dental Practitioners Mark Scarbecz, Journal of the Tennessee Dental Association
4. Evidence-Based Dentistry An Introduction,Allan K. Hackshaw,Elizabeth A. Paul,Elizabeth S. Davenport
5. Evidence-based dental care-a concept review, S.M. Hashim Nainar et.al, merican Academy of Pediatric Dentistry Pediatric Dentistry - 20:7, 1998
6. Evidence-based dentistry: A new dimension in oral health H. N. Santosh et.al, Journal of Advanced Clinical & Research Insights (2014), 1, 114–119
7. Thomason JM, Seymour RA, Ellis JS, Kelly PJ, Parry G, Dark J, et al. Determinants of gingival overgrowth severity in organ transplant patients. An examination of the rôle of HLA phenotype. J Clin Periodontol 1996
8. Evidence-based Dentistry: Future Aspects Kanika Mohindra, Ashutosh Nirola,2017 Journal of the International Clinical Dental Research Organization | Published by Wolters Kluwer –Medknow
9. Fedorowicz Z, Almas K, Keenon JV. Perceptions and attitudes towards their use of evidence based dentistry among final year students and interns at King Saud University, college of dentistry in Riyadh, Saudi Arabia. Braz J Oral Sci 2004;3:470-4.
10. Abt E. Evidence based teaching and learning in a postgraduate dental education program. J Evid Based Dent Pract2004;4:100-6.
11. Al-Ansari A, ElTantawi M. Factors affecting self-reported implementation of evidence-based practice among a group of dentists. J Evid Based Dent Pract2014;14:2-8.
12. Knowledge and attitude toward evidence-based dentistry among postgraduate students of a dental college in South India, K. V. N. R. Pratapet.al, Indian Journal of Health Sciences □ Jul-Dec 2014 □ Vol 7 □ Issue 2