Faculty Calibration in Evidence-based Dentistry

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Which Standards Include Evidence-based Dentistry?

Commission on Dental Accreditation

Accreditation Standards
For Dental Education Programs

Revision effective July 1, 2013.
Concordance between clinical practice and published evidence

Findings from The National Dental Practice-Based Research Network

Wynne E. Norton, PhD; Ellen Funkhouser, DrPH; Sonia K. Makhija, DDS, MPH; Valeria V. Gordan, DDS, MS, MS-CI; James D. Bader, DDS, MPH; D. Brad Rindal, DDS; Daniel J. Pihlstrom, DDS; Thomas J. Hilton, DMD, MS; Julie Frantsve-Hawley, RDH, PhD; Gregg H. Gilbert, DDS, MBA; The National Dental Practice-Based Research Network Collaborative Group

Results. The authors limited analyses to participants in the United States (N = 591). The study results show a mean concordance at the practitioner level of 62 percent (SD = 18 percent); procedure-specific concordance ranged from 8 to 100 percent. Affiliation with a large group practice, being a female practitioner and having received a dental degree before 1990 were independently associated with high concordance (≥ 75 percent).

Conclusion. Dentists reported a medium-range concordance between practice and published evidence.

Practical Implications. Efforts to bring research findings into routine practice are needed.

Key Words. Clinical practice; evidence-based dentistry; dentistry; implementation science.
Google scholar

Stand on the shoulders of giants

the world before social media...
Goal: Using the best evidence to improve patient care.
New to EBD? Watch a quick tutorial.

Five- to 10-minute tutorials give you a quick understanding of basic EBD principles. Modules include EBD Overview and Series on Statistics. Watch now
the critical few...
A Life-Long Learner Finds a Niche in Teaching Evidence-Based Dentistry

I have been in dental education for 22 years, teaching prosthodontics (prosthetic dentistry) at The University of Texas Health Science School of Dentistry at Houston, Texas, where I hold a faculty appointment as Assistant Professor. After completing my BA degree in biology in 1971, I studied in Oxford for a year as a Student at St. Catherine’s College. In the following years, I received my DDS, Certificate in Prosthodontics and MPH degrees. Forty years after leaving Oxford, I returned to St. Catherine’s College and I am currently completing the MSc in Evidence-Based Health Care. For a full-time academic, the part-time MSc program was a unique opportunity to pursue an Oxford degree while studying under world-class tutors in small interactive seminars with international groups of fellow students from very diverse professional backgrounds. It is re-kindling my enthusiasm and invigorating my academic career in teaching and research.

Gene C. Stevenson, St. Catherine’s 1971

Guest - September 24, 2014
I have been in dental education for 22 years, teaching prosthodontics (prosthetic dentistry) at The University of Texas Health Science School of Dentistry at Houston, Texas, where I hold a
Faculty Retreat, June 27, 2013.

- Study Designs
- Systematic Reviews & Meta-analyses
- Basic Statistics
- PICO Questions
- EBD Guidelines
- Sources for Pre-appraised Evidence
- CATs Program @ UTHSCSA
- Implementation for CODA
Evidence-Based Dentistry Search and Evaluation Strategies

Start with a topic you want to know more about.

What you can do in 5 minutes

Search ebd.ada.org by topic:
- Systematic reviews with critical summaries
- Systematic reviews from the Cochrane Collaboration
- Systematic reviews with critical summaries from DARE

Questions to ask yourself:
- What are the results?
- Are the results valid?
- Will the results help in caring for my patient?

Advantages:
- Fast
- Simple
- Requires little advanced skill
- Efficiently utilizes high-quality systematic reviews and other pre-appraised evidence
- Free

Limitations:
- May not completely or directly answer your question
- Requires that the topic has been well-researched
- Requires reliance on others for critical appraisal
Fixed functional appliances for treatment of skeletal class II malocclusion

This review of fixed functional appliances for the treatment of class II malocclusions could only find 11 small studies with methodological problems to assess the effectiveness of this approach. Some benefit was noted but larger higher quality studies are needed.

Tags: Angle class II, Cochrane, fixed appliance therapy, functional appliance, orthodontics

Behçet’s disease: review found insufficient evidence to support or refute interventions for oral ulceration

This review focuses on the treatment of oral ulceration in Behçet’s disease. 15 trials examining 13 different interventions were found. There was insufficient evidence to support or refute the use of any included intervention with regard to pain, episode duration, or episode frequency associated with oral ulcers, or safety of the interventions.

Tags: Behçet’s disease, Cochrane, colchicine, interferon, oral medicine and pathology, oral ulceration, thrombolyse, ulceration

Recent Posts

- Fixed functional appliances for treatment of skeletal class II malocclusion
- Behçet’s disease: review found insufficient evidence to support or refute interventions for oral ulceration
- Composite resin restorations: no good evidence to assess impact on dental pulp
- Low-level laser therapy: review suggests some benefit for patients with temporomandibular disorders
- Mandibular fractures: review finds that use of a single miniplates reduced postoperative complications
Faculty Retreat, June 26, 2014.
EVIDENCE-BASED DENTISTRY

“The central and simple message of evidence-based practice is that best research evidence needs to be combined with patient values and circumstances, along with practitioner expertise.”

The goal is using best evidence to improve patient care.

FIVE STEPS OF EBD

1. Asking Focused Questions
   Use PICO to Create a Search Question
   Population / Intervention / Comparison / Outcome

2. Finding the Evidence
   Best – Systematic Reviews & Randomized Controlled Trials
   3 key steps: *
   1. Identify terms for your PICO question
   2. Look for Secondary Sources
   3. Search for Primary Sources

3. Critically Appraising the Evidence
   Use pre-appraised Secondary Sources
   Critical Appraisal tools for Primary Sources:
   www.cebm.net/critical-appraisal/

4. Making a Decision
   Translation of Evidence into Practice Based on Clinical Expertise & Patient Concerns

5. Evaluation of Performance
   How do you evaluate it?
   What does your patient think?
   How could you do it better next time?

Finding Good Evidence Quickly

Specialized clinical search engines designed to allow users to quickly and easily find evidence-based source material (articles, systematic reviews, guidelines, and structured abstracts) to support their practice and/or care

HIERARCHY OF SEARCHING

Secondary Sources

Filtered Search Engine
TRIP Database
www.tripdatabase.com

Secondary Research
Cochrane Library
www.thecochranelibrary.com

DARE (Database of Abstracts of Review of Ethics)
www.cochrane.org/editorial-and-publishing-policy-resource/database-abstracts-reviews-effects-dare

Guidelines
ADA Center for Evidence-Based Dentistry

US National Guideline Clearinghouse
www.guideline.gov

Clinical Queries
PubMed: Clinical Queries
www.ncbi.nlm.nih.gov/pubmed/clinical

CATs – Critically Appraised Topics (EBD)
https://cats.uthscsa.edu/

Primary Sources

Search strategies for bibliographic healthcare databases:
thesaurus searching and text word searching. Use methodological filters to target the right type of study.*

PubMed

Generic Search Engines / Directories
Google, Google Scholar, Yahoo

HELPFUL EBD WEBSITES

Systematic Reviews and EBD Tutorials
ADA Center for Evidence-Based Dentistry
http://ebd.ada.org

Critical Appraisals, Evidence-based Tools & Resources
Centre for Evidence-based Medicine at the University of Oxford
http://www.cebm.net

Teaching, Learning, Practice & Evaluation of EBD
The Centre for Evidence-based Dentistry
www.cebd.org

Assessing Methodological Quality of Systematic Reviews
AMSTAR
http://www.nccmt.ca/registry/view/eng/97.html

Randomized Controlled Trials
CONSORT
www.consort-statement.org/

Information & History about Fair Tests of Healthcare Treatment
James Lind Library
www.jameslindlibrary.org

QUESTIONS?

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*Centre for Evidence-based Medicine 2014
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