Chiropractic Board of Australia

Frequently Asked Questions

4 December 2015

Evidence-based practice

Purpose

The Board's Code of Conduct states that practitioners must practice in an evidence-based and patient-centred manner so that they provide the best possible healthcare for their patients. This fact sheet seeks to answer common questions raised by practitioners about evidence-based practice.

What is evidence-based practice?

Evidence-based practice is defined as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research." [1]

Evidence-based practice is also known as evidence-informed practice, evidence-based treatment, evidence-based healthcare and evidence-influenced practice.

Regardless of the name, evidence-based practice as it relates to a practitioner's clinical decision making relies on the integration of three critical elements. These elements are:

1. the current best available evidence
2. the clinical expertise of the practitioner
3. the patient's values and expectations

Clinical decision making is a complex process that involves gathering and interpreting data from a number of sources and collaborating with the patient in order to choose a course of treatment. Evidence-based practice involves a practitioner considering the available research and other sources of information in addition to their clinical experience and the patient's values during their clinical decision making process.

Why should I use evidence-based practice?

Practitioners are expected to deliver care that is informed by the best available evidence. [2] The use of evidence-based practice can result in a number of benefits to the patient and practitioner; including improved patient outcomes,[3] enhanced patient safety, better patient satisfaction, increased cost effectiveness and increased professional credibility. By incorporating the best research evidence into their clinical decision-making practitioners can ensure that patients receive the highest possible standard of care.

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[1] Sackett, DL, et al, Evidence-based medicine: what it is and what it isn't, BMJ,1996; 312: 71-2.

[2] Oppenlander, ME, et al, Research in spinal surgery: Evaluation and practice of evidence-based medicine, WJO. 2014 Apr 18; 5(2): 89-93.

[3] Reilly, BM, The essence of EBM, BMJ 2004 Oct 30, v.329(7473): 991-992.

What is current best evidence?

Current best evidence is up-to-date information from relevant, valid research about the effects of different forms of health care.

There is a wide range of evidence about chiropractic healthcare. This evidence includes randomised controlled trials, non-randomised controlled studies, descriptive studies, qualitative research and others. Not all evidence is equally convincing. Some types of evidence are considered more reliable than others. There is a hierarchy of evidence that rates different types of evidence for reliability.

Hierarchy of evidence

Evidence is rated from most reliable to least reliable. The National Health and Medical Research Council (NHMRC) in Australia uses a scale from Level I being most reliable to Level IV being least reliable.

Table A – Hierarchy of evidence

Level I	Evidence is considered to be the best quality evidence, It includes the systematic review or meta-analysis of Level II studies. A systematic review aims to provide an exhaustive summary of current literature relevant to a particular research question
Level II	Evidence takes the form of a randomised controlled trial (RCT). RCT's are often used to test the effectiveness of health interventions. The subjects in a RCT are randomly allocated to one or more blinded treatment groups and the results of these groups are usually compared to a control group of subjects who received no or placebo treatment
Level III-1	Evidence includes pseudorandomised controlled studies that assign subjects to a treatment method based on location, days of the week or other non-randomised methods and compare the outcomes from each group
Level III-2	Evidence includes studies that compare outcomes for subjects who have undergone a particular treatment with subjects who have not. The study may be designed as a prospective or retrospective study
Level III-3	Evidence includes studies that compare the outcomes from two or more studies or analyse trends in outcome that are measured over multiple time points A comparative study without concurrent controls
Level IV	Evidence consists of case series with either post-test or pre-test outcomes and includes case studies of single or small numbers of subjects

Evidence based on clinical experience and/or case studies is not considered valid or reliable as it is based on a small sample size and is subject to practitioner and patient bias as it is not blinded or randomised.

It is important to note that all research should be as recent as possible to ensure that the evidence being used is up to date.

Does evidence-based practice mean that I can only use treatments with high level evidence?

Evidence-based practice means that practitioners should make decisions about the care of the individual patient by integrating their individual clinical expertise with the best available clinical evidence. Relevant evidence is not always available to assist a practitioner to make a decision about every condition that they treat.

However, clinical experience on its own is rarely sufficient to justify a clinical decision. A practitioner is entitled to use their clinical experience to assist in their decisions regarding patient care. In cases where there is only low level evidence to support a particular treatment choice the practitioner should inform the patient of this fact. The patient can be informed that it is the practitioner's clinical experience that the treatment may be effective for the presenting condition. Without this information the patient is unable to

make an adequately informed decision about their health care. [4] More importantly where there is evidence that a form of care is inappropriate or unsafe, a practitioners' clinical experience or patient's preference should not be used to override the evidence.

What does it mean in practice?

A practitioner's role is to be an advisor who empowers informed patient decisions. Relying only on those studies that support the practitioner's views and/or practice style does not constitute evidence-based practice. A patient must be made aware when there is evidence for another effective treatment for their condition in order for them to make a decision about their care that is based on all the facts.[5]

A practitioner's clinical experience ranks as a very low level of evidence because of the small sample size and the lack of control for factors including placebo effect. As a result practitioners should recognise that their clinical experience cannot be used to justify treatment when there is good evidence for the efficacy of other treatment modalities that is contradictory.

Additional resources?

National Health and Medical Research Council (NHMRC) - https://www.nhmrc.gov.au/

NHMRC Clinical practice guidelines portal - https://www.clinicalguidelines.gov.au/

Cochrane Community - http://community.cochrane.org/about-us/evidence-based-health-care

US Cochrane Centre - Understanding Evidence-based Healthcare – Free course
http://us.cochrane.org/understanding-evidence-based-healthcare-foundation-action

Centre for evidence –based medicine (CEBM) - http://www.cebm.net/

[4] Haynes RB, Devereaux PJ, Guyatt GH, Physicians' and patients' choices in evidence based practice, BMJ 2002, 324:1350

[5] Bronfort, G, Effectiveness of manual therapies: the UK evidence report, Chiropractic & Osteopathy 2010, 18:3