

A systematic review of evidence based practice in postgraduate healthcare education.

Bottom Line: Small improvements in knowledge, skills, attitude or behaviour, due to evidence based practice in postgraduate health care education, were noted when measured alone. The quality of the evidence prevents recommendations that could be introduced in EBP education in postgraduate healthcare professionals.

Focused Question:

Does the paper help the library service claim critical appraisal sessions with postgraduate level healthcare staff improve patient care or attendees' knowledge?

Citation:

Evidence based practice in postgraduate healthcare education: a systematic review.

Flores-Mateo G, Argimon J.M.
BMC Health Services Research. (2007) 7:119

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1995214/pdf/1472-6963-7-119.pdf>

Search terms:

Systematic review AND evidence based

Summary of the aim and methods of the study

- The study aim was to systematically review studies that assessed the effectiveness of EBP teaching to improve knowledge, skills, attitudes and behaviour of postgraduate healthcare workers and to describe instruments available to evaluate EBP teaching.
- The design was a systematic review of randomized, non-randomized, and before-after studies. Data sources were MEDLINE, Cochrane Library, EMBASE, CINAHL and ERIC between 1966 and 2006. Reference list of the relevant original papers and review were also looked at.
- The search strategy used free text and the Medical Subject Headings (MeSH) terms evidence based medicine, critical appraisal, knowledge, attitude, skills, behaviour, clinical competence, teach, education intervention, courses, journal club, workshops, multifaceted intervention, residents, physicians, nurses, health care professionals, postgraduates.
- The exclusion criteria were studies that focused on (a) prescribing; (b) specific health problems (c) theoretical reviews of different components of EBP (searching skills, formulating questions); (d) continuing medical education in general (not specifically in EBP); (e) undergraduates (f) testing the effectiveness of implementing guidelines; (g) evaluating teaching methods using IT devices (h) no original studies and (i) medical students

Main Results:

- After identifying 481 articles, 24 studies met the inclusion criteria. A funnel plot did not suggest any publication or related bias.
- There were 22 instruments for evaluating education EBP found. Only 10 had 2 or more types of validity or reliability evidence.
- There were 15 outcomes within the 10 studies for which effect sizes (E-S) could be calculated. Studies assessing skills, behaviour and/or attitude had a “small to moderate” E-S. Only 1 of the 2 studies assessing knowledge had an E-S in the “small to moderate” range. Two of the four studies that assess total test score outcomes have large E-S.

Comments:

- The reviewers identified databases used and outlined the search strategy.
- The reviewers assess the quality of the included studies with a clear pre-determined strategy including exclusion criteria. Two investigators independently abstracted the articles. They also assigned the types of outcome to relevant categories.
- There was considerable heterogeneity between the studies.
- The results were expressed as an effect size (E-S) calculated as the difference in means divided by the square root of the pooled group variances. The E-S for the included studies was presented in a forest plot for the outcome groups.
- The quality of the evidence precluded practical recommendations to be introduced in EBP education in postgraduate healthcare professionals.
- By excluding medical students the study population matched the local demographic however, as the studies were from many different countries and used several different interventions the results could not be applied to the local population.
- While the results showed small improvement in participants’ knowledge they could not be linked to any improvement in patient care.