

# EVIDENCE-BASED PRACTICE (EBP): How to Appraise an Article?

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## Introduction

With reference to our article entitled 'Evidence-Based Practice (EBP): The Meaning of Evidence',<sup>1</sup> the subtle difference between research-based practice and evidence-based practice was discussed. It is obvious that evidence-based practice relies on traditional research as its foundation. However, it goes one step further to close the gap between research and practice. This is achieved by critically evaluating the research done by others, drawing on own experience, taking cognisance of patients' needs and implementing the finding in practice. The following chronological guide serves to assist the family practitioner on how to critically appraise an article.

## Critical appraisal of the literature

There are four fundamental steps to consider when appraising the literature:<sup>2</sup>

### (i) To conduct the initial validity and relevance screen

The following questions need to be addressed:

- **Is this article applicable to my study?**
- **Is it worth taking the time to review it?** The article may appear in a peer-reviewed journal and should have undergone extensive scrutiny. The article may appear in a non peer-reviewed journal, newsletter or research report and may still be worth reviewing.
- **Does the location of the study match the intended project?** The location may differ and may introduce bias. For example, the study may have been conducted in a location that was well equipped versus the intended study being conducted in a location that does not have all the necessary equip-

ment. Or the geographical location may differ – resulting in an environmental impact on the intended study.

- **Was the study sponsored by an organisation?** Did the organisation influence the outcome of the study? As an example, research papers may be found in product magazines and are biased towards a particular product. This does not imply that all projects sponsored by companies are necessarily biased towards their product. But it is a point to consider.
- **Does the article have relevance to what can be incorporated into current practice?** If incorporated, how will it influence the practice? A change may entail financial implications, upgrading of equipment and recruiting additional personnel. Having addressed the aforementioned, the next step will be to determine the intent of the article.

### (ii) The intent of the article

Here the questions would address, why was the study done and most importantly the evaluation of the conclusions.

### (iii) The validity of the article based on its intent

The article should be assessed for its validity and application. At this juncture the following steps should be followed:

- Study the abstract.
- Survey the bold-faced headings.
- Review the tables and graphs.
- Grasp the organisation of the article.
- Determine the type of study done.

### (iv) Now critique the article based on the following questions

- Was the study based on randomised controlled trials?

- Was everyone in the study 'blind' to treatment (if applicable)?
- Were factors present that may have influenced the study?
- Are the treatment benefits worth the potential harms and costs? (Adapted from Miser in Geyman 2000).

## Implementing the Relevant Findings in Practice

This aspect must be considered before undertaking any research project. Care must be taken that it does not become a mere academic exercise. Also it is not unusual to find that the 'changed approach' is discontinued after the primary investigator moves on to another department or leaves the institution. The implication is total commitment to benefit all stakeholders.

## Summarise and Store Information

This stage is critical to evidence-based practice. It provides a foundation for those involved in the study and also assists fellow workers in their quest for searching for evidence. The preliminary stage of the study may be published in a research report, an annual report or in guideline form as 'work in progress'. At a later stage it may be formatted for publication in a peer reviewed journal or contribute as a chapter in a book. The next article will focus on the evidence for the use of antibiotics in common cold.

## References

1. Ebrahim N, Ogunbanjo GA. Evidence-Based Practice (EBP): The Meaning of Evidence SA Fam Pract 2003; 45(8): 60-61.
2. Miser WF. In: Geyman,JP,Devo RA. Critical Appraisal of the Literature: How to Assess An Article and Still Enjoy Life. In: Evidence-Based Clinical Practice. Concepts and Approaches. Oxford, United Kingdom: Butterworth-Heinemann, 2000.