Editorial

Critical Appraisal

Research is exponentially increasing around the world and "new" up-to-the-minute information is constantly replacing or improving upon "old news". Clinicians, researchers, educationists find themselves in less and less time to find and utilize "new information". Selection, reading and application of new research becomes more burdening when researchers report conflicting results on the same issue or present different modalities to solve a single problem. However for a successful professional, it is necessary that one must remain up to date in one's field.

A journal is the primary channel for dissemination of information in a profession. Regular perusal of specialty journals is an apparent way of keeping up to date. An interested professional must be determined to seek continuing education by reading journals and choosing those items on which he will focus and those he will ignore. The article title and abstract helps the reader to identify one's interested literature for further working. A detailed critical analysis of scientific publication is critical appraisal that is done by systematically reviewing its relevance, validity and results to specific situations. To do a critical appraisal, one must have basic knowledge about the type and nature of studies (research methodologies) and also understand the structure of scientific publications.

Critical appraisal ensures comprehensive assessment of article, identifies the strengths and weaknesses of study, develops an improved understanding of research methodology and allows relating published research to one's situation and facilitates implementation of effective intervention in clinical practice. The method of critical appraisal may be very time consuming and demands a careful reading of the whole article especially methodology and statistical analysis. Thus critical appraisal skills program (CASP) provides appraisal tools to help evaluate the research of interest.

Critical appraisal offers, to a scientist and specialist in different disciplines, to evaluate the positive and negative aspects of published article in term of its methodology and results. Based on this evaluation the user could decide how much he/she can rely on results in his/her practice. Research suggests that critical appraisal teaching has positive effects on participants' knowledge. Therefore the skill of critical appraisal has become fundamental in evidence –based medicine (EBM). There is evidence that EBM must be learned during studentship; but this is not defined as an established part of curriculum in developing countries. Evidence based resources make it easy to appraise individual research articles or appraise a particular clinical condition or research question.

Considering the vast amount of medical knowledge available today through various media outlets, it is essential that medical graduates have the skills to search for information, appraise that information, and apply the valid information to solve clinical problems (EBM practice). EBM

strategy provides the most up-to-date and scientifically accepted evidence published in peer reviewed and valid journals for the treatment choices or solving public health problems. EBM involves approaching a clinical problem using a four-step method: (1) formulate a clear clinical question from a patient's problem, (2) search the literature for relevant clinical articles, (3) evaluate (critically appraise) the evidence for its validity and usefulness, (4) implement useful findings into clinical practice.

Learning and practice of critical appraisal evolves into EBM and this transforms into evidence based practice (EPB) that is integration of best research evidence, clinical expertise and patient values. It is evidence based patient management or best patient care. EBM has the potential to bridge the gap between research and practice, prevent decline in clinical skills, save busy practicing physicians' time and has been recognized to be included in medical school curricula across the world.

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