Introduction

Preamble

“A wise man proportions his beliefs to the evidence” David Hume

“The search for truth leads you where the evidence takes you, even if, at first you don’t want to go there” Bart D Ehrman

Evidence, if broadly looked at, is anything presented in support or proof of a claim or belief. It derives different meanings as the context changes. In the court of law, this evidence is “deemed” important and is a deciding factor for accepting or rejecting a judgment. In healthcare, this evidence consists of experimental results which support, reject or change a scientific hypothesis. This supportive evidence is usually published in scientific literature such as in text books, professional journals, or in reports of governing bodies appointed by government.

This evidence may be strong or weak. The evidence is considered strong if it provides a concrete proof of the claim. Strong “evidence” enables authentic and unbiased decision making for passing judgment or for executing specific, proven and safe task.

In the health sector, traditional medicine (Ayurveda) and Yoga was followed by Indian culture exactly as noted in Vedas\(^1\) to begin with but later, the veteran followers of the same documented their personal experience related to positive effects of such practices on physical, mental and spiritual health. However, today these practices have gained their popularity globally as positive health markers which are mainly achieved by creating “evidence” after conducting scientific research.\(^2\)
Growth of Physiotherapy practices has also followed similar footsteps. This practice emerged from nursing profession during First World War. Owing to the lack of awareness, even though a small section within India still believes this noble profession as vocational practice similar to what is being followed by physical trainers, masseurs, or nurses. However, in the global scenario Physiotherapy has established its identity as an independent health profession after producing strong “evidence” about its’ treatment techniques and practice. Today physiotherapy is a science on its own which aims at promoting, restoring and maintaining physical, psychological and emotional well being of an individual.

1.1 What is evidence based practice?

1.1.1 Definition

Figure 1.1: Evidence based practice
Sackett et al defines evidence based practice as the conscientious, explicit & judicious use of current evidence in making decisions about the care of individual patients. 3

This definition encompasses three important components of patient care. Evidence based practice (EBP) is an approach to health care wherein health professionals use the best available current evidence from systematic scientific research, integrating it with clinical expertise to make clinical decisions for individual patients. EBP values and respects clinical expertise, inherent knowledge of clinicians and further builds on it. It involves clear, thoughtful and principled decision-making which is based not only on the available current evidence but also on patient characteristics, situations, and preferences. It recognizes that health care is customized and constantly developing and involves uncertainties and probabilities. 4

Since it is the integration of the best available research evidence, clinical experience, patients’ beliefs and values it should facilitate shared decision making between the physiotherapist, the patient, and their family or care givers. 4

1.1.2 Steps of EBP

Previous authors have proposed that EBP consists of a five step process which forms the basis of systematic planning of patient care and helps healthcare professionals in making appropriate clinical decisions in their practice. The five steps of EBP were first described in 1992 by Cook et al 5:

1. Translation of a clinical query to a focused answerable question

2. Systematic search of literature for availability of best evidence
3. Critically appraising the found evidence for validity, appropriateness, and applicability to own patient settings

4. Applying on patients

5. Evaluating or assessing performance of previous steps

Figure 1.2: Steps of Evidence based practice

In this five step process the first four steps involve asking a clinical question, acquiring evidence from systematic search and appraising the evidence, and then applying the evidence into clinical practice. The fifth step which is assess, gives a chance to reflect upon the actions undertaken in the first four steps. 5,6,7
This five-step model forms the basis for both clinical practice and teaching EBP, for as Rosenberg and Donald observed, "an immediate attraction of evidence-based medicine is that it integrates medical education with clinical practice". 8

1.2 Rationale of this study

The World Confederation for Physical Therapy (WCPT) advocates that physical therapists have a professional responsibility to consider the best available evidence during practice and base the management of patients on the same. They also have a responsibility not to use those treatment techniques and methods that have been shown to be ineffective or unsafe. WCPT has broad goals and they encourage high standards of physiotherapy practice, evolved from quality education and systematic, organized research [WCPT, Strategic plan, 2011-2015]. 4,9

As per the Sicily Statement, 7 it has been suggested that EBP involves a five step process:

1. Asking a clinical question
2. Acquiring / Finding evidence through systematic literature search
3. Appraising the evidence found
4. Applying in clinical practice
5. Assessing evaluation of performance

Thus it is evident from the above steps that to implement EBP a good knowledge of research methodology and critical appraisal skills is required. Currently, it is seen that EBP is the professional standard in practice, and hence it was important to assess which of the above steps of EBP are implemented and systematically utilized in our graduate (UG) and post-graduate (PG) physiotherapy education in India. 10
The profession of physiotherapy is moving ahead at a fast pace and transiting into newer realms of practice. There is overall increase in the responsibilities from the point of view of practice and education. Research has become an integral part. Evidence based clinical decision making has put emphasis on reading published articles and finding the ‘best evidence’.

In developed countries, importance of EBP has been expressed clearly and integration of EBP in curricula is published however little is known about the developing countries.¹¹ Though the board framework would remain same the other trends and factors would differ and be specific to our country. Thus we need to know the details specific to our country, culture and practice settings.

1.3 Aims and objectives:

1.3.1 Research Question

Does the Indian physiotherapy education meet the needs of the current healthcare system which is moving towards EBP?

There have been constructive changes on social, physical, political aspects in India. All these have an impact on the healthcare and thus we need to be geared to create a workforce with which we can effectively manage and train student physiotherapists for these upcoming challenges. There are changes expected on all these aspects even further and so we had to identify the gaps in knowledge and the way it is delivered, anticipate changes and try to strengthen physiotherapy education so that it can be applied globally. Thus the aim of the study was to review the gaps in EBP knowledge, get future directions and discuss the implications for future of physiotherapy profession in health care.
The purpose of this study was to scan the current trends of evidence based practice and research in physiotherapy education in India, to know about the awareness of research and critical appraisal and their impact on physiotherapy practice and health care.

1.3.2 Context of this research study

Preliminary literature review did not reveal any study conducted on Indian physiotherapists to understand their usage and practice of EBP. A primary study was hence conducted with the purpose of understanding and generating some information and literature about the subject of study.

1.3.3 Aims:

1. To know the awareness, knowledge, understanding & barriers in implementation of EBP by clinical physiotherapists in Mumbai.
2. To find the inclusion of training of evidence based practice in physiotherapy programs currently in India.
3. To explore the perceptions of experienced and senior Physiotherapy faculty about training of EBP in physiotherapy education.
4. To know what panelists identify as important in the development of a module on evidence based practice for entry-level students of Physiotherapy

This research project was basically divided into 3 studies after the primary baseline study. It was a qualitative study and results of one study lead to development of objectives of following/further study.

1. Primary study
2. Study I: Desk Review of curricula
3. Study II: Semi structured interviews with academicians
4. Study III: Preparation of an EBP module

1.3.4 Objectives

1. **Primary study:**
   
i) To study the awareness, knowledge of terms, understanding and barriers of EBP amongst physiotherapy practitioners
   
ii) To know about their level of training in EBP and its steps
   
iii) To know about their adoption of EBP in practice.

2. **Study I: Desk Review of curricula**
   
i) To find the total number of Universities (Government, State, Private, Deemed) offering Physiotherapy UG and PG programs in India.
   
ii) To prepare a tool for desk review of curricula
   
iii) To explore the different curricula to find the inclusion of training of EBP in Physiotherapy programs in India.

3. **Study II: Semi structured interviews with experts**
   
i) To know the opinions and views of senior Physiotherapy faculty about training of EBP and its steps.

4. **Study III: Preparation of an EBP module**
   
i) Our primary objective with this study was to use a modified Delphi consensus to develop a module for teaching evidence based practice in physiotherapy programs in India.
   
ii) To get a consensus on the topics and contents of the module, duration of the module, teaching and assessment methods, year in which it should be taught.