World Physiotherapy
Europe region

Position Paper – Enhancing Research Findings Awareness in Clinical Practice in the Europe Region

Education & Research Matters Working Group (E&RMWG)

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POSITION PAPER

ENHANCING RESEARCH FINDINGS AWARENESS IN CLINICAL PRACTICE IN THE EUROPE REGION

Europe Region

Education & Research Matters Working Group

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INTRODUCTION

Over the last two decades, physiotherapy research has experienced a significant five-fold growth, as indicated by PubMed. Despite this surge, a notable gap remains between generating research findings and their practical implementation in clinical practice. The primary goal in health research systems is swift translation of scientific discoveries into patient benefits, yet the current process takes 17 years[1]. The challenge for the future lies in effectively implementing these discoveries in clinical practice. Research awareness in physiotherapy refers to the understanding, recognition, and appreciation of the role and significance of research in physiotherapy. It involves having knowledge about current research trends, methodologies, and findings relevant to physiotherapy practice. Research awareness enables physiotherapists to critically evaluate and apply research findings in their clinical decision-making processes and to contribute to evidence-based practice. It also entails staying updated with the latest developments, publications, and advancements in physiotherapy research and actively seeking opportunities to engage in research activities, such as attending conferences, reading scholarly articles, and collaborating with researchers. By cultivating research awareness, physiotherapists can enhance their professional expertise, contribute to advancing the field of physiotherapy, and provide high-quality, evidence-based care to their patients.

High-quality healthcare is a basic right for every citizen, and physiotherapy is a crucial component of this in the healthcare system[2]. Physiotherapy plays a vital role in promoting physical function, reducing pain and disability, and improving the quality of life for individuals with a wide range of health conditions. To provide high-quality physiotherapy care, it is essential to have highly trained and skilled physiotherapists who can diagnose, treat and prevent physical impairments, disabilities, and pain.
In conclusion, to ensure that citizens receive high-quality healthcare, it is essential to have highly trained and competent physiotherapists who can provide effective and evidence-based care. This not only helps to improve patient outcomes but also enhances the reputation of the profession and contributes to the advancement of the field of physiotherapy.

1. PURPOSE OF THE POSITION PAPER

The primary objective of this document is to underscore the importance of Research Findings Awareness (RFA) and Evidence-Based Practice (EBP) in the realm of clinical decision-making and patient management. In pursuit of this objective, we will delineate three crucial steps:

1. Differentiating Best Scientific Evidence from EBP:
2. Emphasising the Added Value of EBP in Daily Clinical Practice: Highlight the advantages and enhancements that EBP brings to day-to-day clinical practice, including improved patient outcomes and informed decision-making.
3. Understanding the Role of Research in the Context of EBP: Explore the multifaceted role of research within the framework of EBP, encompassing its contributions, limitations, and the synergy between research and clinical decision-making.

Additionally, the document will elucidate the pivotal role of the MOs in the integration of RFA and EBP into clinical settings to enhance patient care and healthcare outcomes.

2. UNDERSTAND EVIDENCE BASED PRACTICE

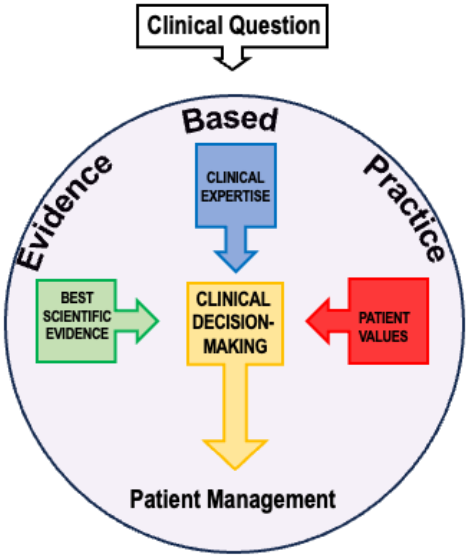
The academisation of the profession has created the perception that the Best Scientific Evidence equals EBP. Nothing could be further from the truth. The best scientific evidence and EBP are related concepts but have distinct differences:
Best Scientific Evidence: refers to the highest quality and most reliable evidence available in a particular field of study. Best scientific evidence is based on objective data and statistical analysis, aiming to provide reliable and valid conclusions.

It is important to keep in mind that statistical significance is not equal to clinical relevance.
EBP, on the other hand, is a broader concept that encompasses the integration of the best available scientific evidence with clinical expertise and patient values and preferences. It involves the conscientious and judicious use of the best evidence to inform clinical decision-making and guide healthcare practices. EBP recognises that the best scientific evidence alone may not be sufficient to inform every clinical decision or address the unique needs of individual patients.

In summary, the best scientific evidence refers to the highest quality and most reliable research findings available. At the same time, EBP involves using the best available evidence in conjunction with clinical expertise and patient values to make informed and patient-centred decisions in healthcare. EBP recognises the importance of integrating research evidence with other sources of knowledge and tailoring care to the individual patient's needs and preferences (Figure 1).

The World Physiotherapy policy statement on EBP[3] states that physiotherapists are responsible for using evidence to inform practice and ensure that the management of patients/clients, their careers and communities is based on the best available evidence. In addition, physiotherapists are responsible for avoiding the use of methodologies, techniques and technologies that have been shown to be ineffective or unsafe.

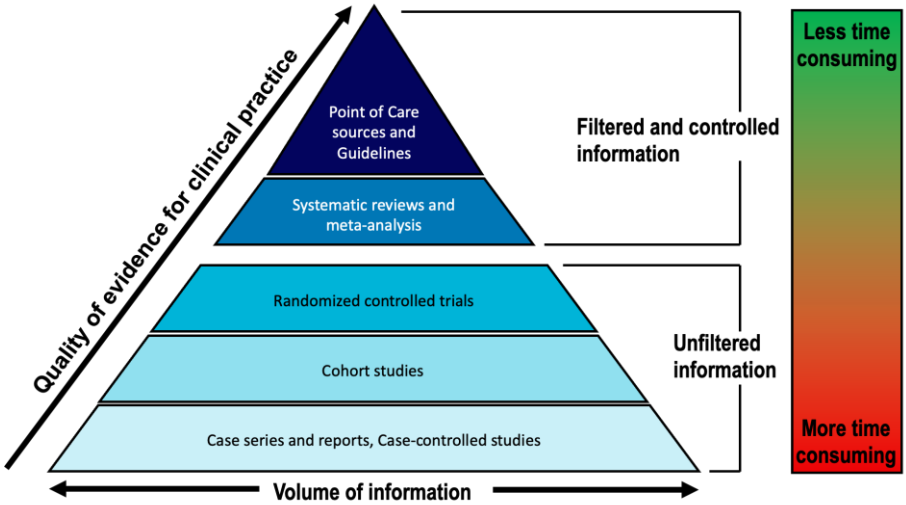
Figure 1:
Framework of Evidence-based practice



3. THE ROLE OF RESEARCH IN THE CONTEXT OF EVIDENCE BASED PRACTICE

Research plays a vital role in EBP by providing the foundation for clinical decision-making and guiding the delivery of high-quality, effective healthcare. Integrating research findings however is hard and often a time-consuming process. Several models have been developed to aggregate research data systematically for the end user (practitioner) but also to rank research data for quality and accessibility. In this paper we use the evidence pyramid to illustrate this (Figure 2).

Figure 2:
Evidence pyramid: 5 Levels of quality of evidence for clinical practice



The evidence pyramid can be interpreted as follows when considering the specific evidence levels mentioned:

1. Case series and reports, case control studies: These studies provide descriptive information about specific cases or compare individuals with a particular condition to those without the condition. While they offer valuable insights, they are considered lower on the evidence pyramid due to their limited ability to establish causation or control for confounding factors.

2. Cohort studies: Cohort studies follow a group of individuals over time and can establish associations between exposures and outcomes. They provide more robust evidence than case series and case control studies, but they still have limitations in terms of establishing causation.

3. Randomised controlled trials (RCTs): RCTs are considered the gold standard in clinical research. They involve randomly assigning participants to different groups and applying an intervention to one group while comparing it to a control group. RCTs provide strong evidence for establishing cause-effect relationships and are vital in assessing the efficacy of interventions.

4. Systematic reviews and meta-analyses: Systematic reviews are comprehensive analyses synthesising evidence from multiple studies on a specific topic. They critically

evaluate the available research, provide an overall conclusion, and can help identify patterns or inconsistencies in the findings. Meta-analyses take it a step further by statistically combining data from multiple studies to obtain a more precise estimate of the intervention's effect.

5. Point of care sources and guidelines: Point of care sources, such as clinical decision support tools or databases, provide readily accessible information that is often based on the best available evidence. They aim to guide healthcare professionals in making informed decisions at the point of care. Conversely, guidelines are evidence-based recommendations developed by expert panels to assist healthcare practitioners in making clinical decisions. They integrate the findings from multiple sources of evidence, including systematic reviews, RCTs, and other high-quality studies.

It is important to note that while the evidence pyramid provides a general framework for assessing the strength of evidence, the interpretation can vary depending on the specific context and research question. Each level of evidence has its own strengths and limitations, and the quality and relevance of individual studies should always be taken into consideration when evaluating evidence.

4. BARRIERS AND FACILITATORS FOR EVIDENCE BASED PRACTICE

The discussion session held at the General Meeting, May 2022 in Prague, demonstrated that 90% of the MOs are aware of the importance of research. The discussion session also revealed that the extent to which scientific evidence finds its way into the clinic is determined by different factors. The language barrier is one of the major stumbling blocks, in addition to access to scientific evidence and the time and skills needed to translate the evidence into clinical practice. These findings are in line with the findings of Paci's systematic review and meta-analysis[4], where lack of time was the most frequently reported barrier, followed by language. PEDro has a current campaign to foster EBP to reduce the barriers from the community to the community[5].

In this document, the central focus will revolve around addressing the two major barriers identified:

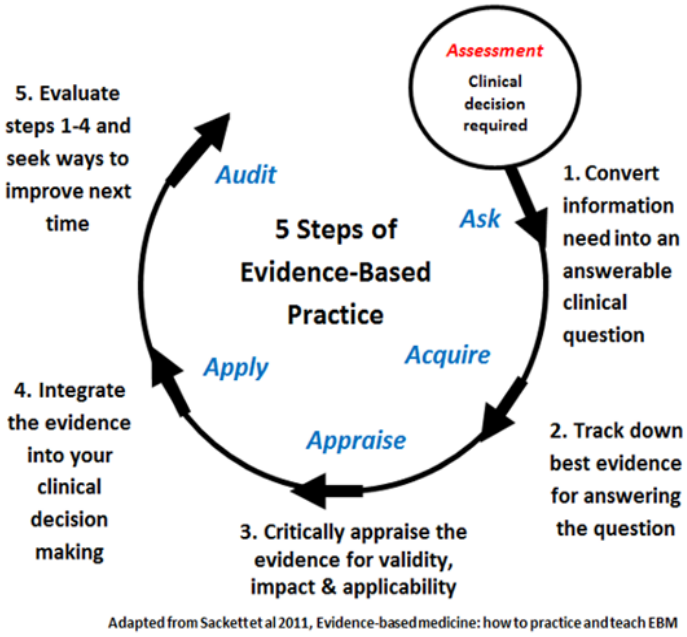
- Insufficient time for accessing and interpreting research findings.
- A shortage of research findings available in the mother tongue.

5. DIFFERENT USER ROLES IN THE IMPLEMENTATION OF RESEARCH (FINDINGS) INTO CLINICAL PRACTICE

Implementing research evidence into daily practice is a challenge and a continuing process. There is no single factor to facilitate change in clinical practice, but multiple practice change strategies are needed[6]. The necessity for all physiotherapists to be critical consumers of research is recognised, together with the responsibility of the organisation and management to develop conditions that are favourable for an evidence-based profession.

It is not expected that every physiotherapist in the field is able to design and lead research. Interpreting scientific research to its applicability in the clinic requires complex skills and is very time consuming, this is also known as the 5A's towards EBP Ask-Acquire-Appraise-Apply-Audit (Figure 3).

Figure 3: 5 steps of Evidence-based Practice. (Adapted from Sackett et al 2011)[7]



This underscores the importance of point of care resources with verified and validated information for the end user, where the time and skills needed to translate the evidence into clinical practice are minimised.

The following distinctions are made among users in the incorporation of research findings into clinical practice:

1. The Entry Level User of Scientific Evidence:
   This role involves individuals who rely on scientific evidence as the foundation for clinical decisions. It necessitates easy accessibility to current scientific evidence that is readily applicable and the ability to navigate controlled point-of-care tools effectively.

2. The Knowledgeable Evidence User:
   The Knowledgeable Evidence Users take a more engaged approach by independently assessing the quality of scientific evidence. This requires a sound understanding of scientific methodology and statistics to critically evaluate and apply up-to-date research findings.

3. The Participating Clinical Researcher:
   In this role, users are trained and equipped to actively engage in scientific research programs. They contribute to the generation of new knowledge, shaping the landscape of EBP through their involvement in research initiatives.

6. RECOMMENDATIONS FOR ACTIONS

It is essential to emphasise that the recommendations for actions are applicable to all users.

It is recommended that the MOs:

1. Stay informed of the priorities of relevant bodies such as national government departments, funding bodies, WHO and EU that could facilitate EU-wide access to point of care tools.

2. Promote and facilitate the access to point of care tools.
   This action is of utmost importance as it concerns the largest group of physiotherapists namely the Entry Level User of Scientific Evidence. Point-of-care tools refer to research and reference resources that clinicians can readily employ during patient care interactions. These tools are designed to be user-friendly and provide filtered information. Most evidence-based point-of-care tools feature clear levels of evidence, rating scales or grade recommendations, and citations linking back to the original research studies, systematic reviews, or guidelines. Examples of point of care sources are Dynamed and UptoDate.

3. Collaborate with HEIs to translate research findings into the mother tongue.
   Given that the language barrier is a significant obstacle, MOs should collaborate closely with educational institutions to translate scientific evidence into the mother tongue to effectively disseminate research findings.

4. Increase the number of Knowledgeable Evidence Users and Participating Clinical Researchers. The MOs should establish training programmes that motivate, incentivise, and recognise physiotherapists in their journey to become Knowledgeable Evidence Users and Active Clinical Researchers. It is crucial to underscore the relevance of these skills in enhancing clinical practice.

5. Disseminate research findings.
   In addition to national conferences and workshops, it is imperative to leverage the advantages of the low entry barrier of social media and other digital platforms, which are accessible to a broad spectrum of physiotherapists across Europe.

6. Promote and facilitate interaction between clinical interest groups and research networks.

7. Should have a committee or a similar entity, depending on internal structures, responsible for devising strategies and establishing priorities for the implementation of research findings in clinical practice.

8. Prioritise the integration of research findings into their national congress programmes, emphasising the practical application of clinical-based research. This commitment involves prominently highlighting the importance of implementing research findings and fostering networking opportunities specifically geared towards the practical implementation of clinical-based research. They also mandate their clinical interest groups to promote research findings' implementation as a core agenda item.

7. CONCLUSIONS

This paper focuses on making recommendations to the Member Organisations regarding the role of the Europe Region to highlight principles and encourage processes that promote Research Findings Awareness in physiotherapy in the Europe Region.

The last two decades have seen a significant increase in physiotherapy research, exemplified by a five-fold increase in publications on PubMed. However, a notable gap persists between research generation and practical implementation in clinical settings.

Research Findings Awareness within physiotherapy is paramount. It equips physiotherapists with the knowledge of current research trends and methodologies, enabling them to critically evaluate and apply research findings in clinical decisions. High-quality healthcare hinges on well-trained physiotherapists who provide evidence-based care, enhancing patient outcomes and the profession's reputation.

Throughout this document, we emphasised RFA and EBP. Recommendations include promoting access to point-of-care tools, translating research into local languages, using digital platforms for dissemination, and enhancing physiotherapists' EBP skills.

Member Organisations (MOs) should collaborate with relevant bodies, establish committees to prioritise research implementation, and integrate research into national congress programs. These efforts will bridge the gap between research and practice, ultimately benefiting patients and advancing the field of physiotherapy.

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