



IS EVIDENCE-BASED PRACTICE (EBP) A REALITY IN THE CLINICAL ROUTINE OF BRAZILIAN PHYSICAL THERAPISTS? A SURVEY STUDY OF KNOWLEDGE, SKILLS AND BEHAVIOR.

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ABSTRACT

Introduction: Evidence-Based Practice (EBP) refers to the set of attitudes from which one can know and apply the best evidence, understand patients' preferences and use clinical experience to optimize care, as well as facilitate decision making by health teams. **Objectives:** to profile physical therapy professionals as to their understanding and application of EBP in their clinical routines. **Methods:** this is a *survey* study involving 146 physiotherapists of both genders, from all Brazilian regions. The professionals were contacted exclusively by e-mail, through their respective regional professional councils, in order to receive the electronic questionnaires, prepared for this purpose using the Google Forms platform. The questionnaires were available for 90 days, after which they were no longer accepted. **Results:** 74.6% of the sample was female; there was almost unanimous agreement that EBP is necessary in clinical practice. Approximately 95% agreed that EBP can be applied even in high demand settings and 84.4% said they were able to insert the guidelines of practice guides into their clinical routines. However, it is noteworthy that 98.6% said they lacked the ability to search relevant scientific literature and the main reasons for not performing EBP were: lack of time, lack of ability to search relevant scientific literature and lack of findings on a given patient population. **Conclusion:** the authors conclude that Brazilian physical therapists recognize the importance of EBP as a guide for clinical decision making and that they use it in their professional routines, however, they need adequate orientation on efficient scientific searches in order to promote treatment excellence through reliable scientific materials.

KEYWORDS : evidence-based medicine, physical therapy, student education.

INTRODUCTION

Evidence-based practice (EBP) is defined as "the systematic process of discovering, evaluating, and using the results of contemporary scientific research as a basis for the best clinical decisions"¹. It has been pointed out that EBP is the description of health care based on the conscious, explicit, and judicious use of the most current research evidence for clinical decision making². Other authors have also stated that EBP refers to a set of attitudes consisting of knowing and applying the best evidence, understanding patient preferences, and using clinical experience to optimize care and facilitate clinical decision making by health care teams^{3,4}.

To appropriately use EBP, therefore, it is necessary to know the following steps: (1) search for knowledge by reading quality scientific articles and conducting research; (2) local adaptation of evidence, identification of facilitating factors and barriers; and (3) implementation of new clinical practices⁵.

It is worth mentioning that this model was introduced in medicine in 1992 by Gordon Guyatt, however, it is not possible to affirm how much physiotherapists apply the method in their clinical practice or how capable they are of doing it⁶. It is known, however, that there is a notable surge of scientific articles in the physical therapy field, as well as the search by these professionals for updated information through good quality sources, on the other hand, it is also a reality the existence of studies in physical therapy of low methodological quality, and

published in Portuguese, a fact that can mistakenly influence the clinical practice of the profession^{7,8}. According to Stander *et al.*,⁴ physical therapists diverge in attitudes, behaviors, knowledge and abilities when applying EBP in their clinical routines, which would imply in inadequate use of scientific evidence.

Accordingly, the objectives of this study are to describe the attitudes, knowledge, and behaviors of Brazilian physical therapists regarding EBP in their care practices.

METHODS

Participated in the study 146 physical therapists of both sexes, from all macro-regions of Brazil, in a cross-sectional, prospective *survey*. Participants were contacted through their regional councils, which sent them the invitation and explanation for the study, as well as the questionnaire developed specifically for the study. Applicants had to be registered with the regional council that regulates their profession, practice physical therapy for at least 12 months, and sign an Informed Consent Form (ICF). Exclusion criteria included: not practicing physiotherapy for over 24 months and not answering the questionnaire in full within 90 days of receiving it.

The questionnaire used in the survey was based on the *Evidence-Based Practice (EBP) Questionnaire*, as recommended by Jette *et al.*,¹ specifically designed for this purpose, the questionnaire was divided as follows: sociodemographic aspects (6 questions); attitudes toward,

and use of EBP (8 questions); use and understanding of practical guides in learning and/or clinical practice (3 questions); and personal skills for scientific research, availability of information and access to resources (3 questions). Researchers developed the questionnaire using the Google Forms platform and sent it exclusively via electronic means to professionals from the Regional Councils of Physiotherapy that agreed to participate in the study.

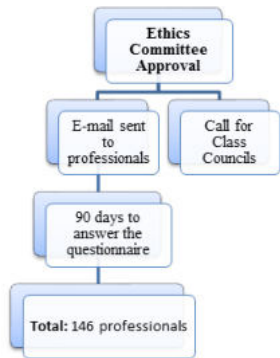


Figure 1: Research flow chart.

The instrument was available for 90 days, after which new submissions were no longer considered.

The research was registered under the number CAAE (28818820.4.0000.5174), with the State University of Pará.

RESULTS

Of the 146 research volunteers 74.6% were female, professionals from all Brazilian macro-regions participated in the study, however, most belonged to the states of Bahia and Minas Gerais (53.4%), more than half of the respondents were aged between 29-39 years, and other aspects of the sample profile are shown in Table 1.

Regarding what these professionals believe and how they act in relation to EBS, the authors noted almost universal agreement that it is necessary for good clinical care. 95.2% of respondents agreed that it can be applied in high-demand settings, and 95.9% agreed that it contributes to clinical decision making (Table 2).

Approximately 98.6% of respondents said they have no ability to search for relevant scientific literature, which may reflect insufficient reading practice since only a little more than half (52.7%) read between 2 and 5 articles per month.

On the insertion of practical guides in the clinical routine, 84.4% answered that they can make this relationship. Although 32.1% of respondents believe that EBP doesn't consider their own professional limitations, 29.3% believe it does not consider patients' preferences (Table 2), which may hinder the application of evidence by many professionals.

Among the main barriers found to adequately perform EBP were lack of time (51.4%) and lack of relevant scientific research skills (14.5%), other aspects are described in Table 3.

Table 1: Sample profile.

Sex female	74,6%
Aged between 29-39 years	57,5%
Are married	48,6%
Coming from private universities	75,3%
Have 1-5 years of profession	32,8%
Specialists/post-graduates	67,8%
Reads 2 to 5 articles/month	52,7%

Table 2: Professional behavior towards EBP.

	D	PD	PA	A	N
EBS aids clinical decision making	1,4%	1,4%	87,7 %	8,2%	1,3 %
EBS can be applied in high demand environments	-	2,1%	72,8 %	22,4 %	2,7 %
I have the ability to search for relevant articles.	88,4%	10,2%	1,37 %	-	-

I am able to insert practical guides into my clinical routine.	2,7%	2,7%	56,5 %	27,9 %	10,2 %
My clinical care is based on	1,3%	1,4%	58,5 %	37,4 %	1,4 %
PBE does not consider my professional limitations	36,3%	27,4%	15,0 %	17,1 %	4,2 %
PBE does not consider my patients' limitations	46,9%	19,0%	13,0 %	16,3 %	4,8 %

D (disagree); PD (partly disagree); PA (partly agree); A (agree); N (neutral)

Table 3: Main difficulties pointed out for inserting EBP in the clinical routine.

Insufficient time for reading	51,4%
Lack of ability to search for relevant literature	14,4%
Lack of literature findings about the patient's population	13,0%
Lack of informational media	8,2%
Other	18%
Total	100%

DISCUSSION

Evidence-based practice (EBP) refers to the set of attitudes consisting of knowing and applying the best evidence, understanding patient preferences, and using clinical expertise to optimize care and facilitate clinical decision making by health care teams⁴. As written by Jette *et al.*¹, the exercise of physical therapy through EBP can enrich information about the history of the disease, conduct the examination, assist in therapeutic diagnosis and guide the appropriate intervention. Even so, little is known about the strategies of implementation of the findings in the scientific literature within the daily life of physical therapists⁹.

Our research pointed out that 74.6% of the sample was female, only 32.2% of the interviewees had post-graduate degrees at the master's and doctoral levels, approximately 98% considered EBS necessary in the clinical routine, and 95.9% considered that EBP helps in decision making. In the research by Dao *et al*³ conducted among 381 Vietnamese physiotherapists, 62% were female, only 1% had entered masters and/or PhD courses, 90% agreed that EBP is necessary in clinical practice and approximately 80% stated that it assists in better decision making. Another study involving 316 health professionals (of which 65 were physiotherapists), recorded that 70% of those surveyed make their decisions according to the scientific literature, approximately 75% agreed that EBP can be applied in both inpatient and outpatient settings, 90% agreed that EBP is the best way to efficient clinical care⁵. In our survey 72.8% totally agreed that EBP can be applied even in places with high demand, although 29.3% said that EBP does not consider patient preferences (Table 2).

Also among our results, we observed that 32.8% had between 1-5 years of profession and that a little more than half of the sample (52.7%) read only 2-5 articles per month. This result corroborates Olsen's findings *et al.*¹⁰ who stated that EBP is more difficult to apply in the first years of the profession, both because of the lack of scientific search skills and the presence of poor basic clinical knowledge.

In this sense, it is known that physical therapists differ in their attitudes, behaviors, knowledge and skills regarding EBP in their clinical routines¹. But Dao's *et al.*³ research is even harsher reality: that physical therapists did not learn about efficient literature search during their graduation and that the critical reading of scientific articles was not encouraged in the academy, thus indicating that the deficiency of this method during graduation may imply in the difficulty of its implementation in the professional routine. The authors' results are associated with those found in our study, since 88.4% of the volunteers (Table 2) recognized not having the ability to search for relevant scientific literature, possibly because there was a neglect of EBP during their undergraduate studies. For other authors, a good evidence-based practice demands an effective and efficient search for the literature and its adequate interpretation for its successful insertion in the clinical routine to actually happen. This is because the incentive to scientific search reduces the distance between scientific evidence and clinical practice¹¹.

As a strategy to circumvent the above, it is worth mentioning the work of Olsen *et al.*¹², in which 29 physiotherapist internship supervisors from Norway were divided into a group that received training for good

practice in SBP and a control group (not trained). The trained group received workshops (short lectures and small-group applicability), weekly report submissions (containing a description of procedures that were based on scientific literature), direct supervision by email or telephone of supervisors in EBP for quality scientific research and its efficient practice in clinical routine, and testing (oral presentation of step-by-step EBP and its actual application by each practitioner). At the end of the training, the authors observed greater interactivity, greater clinical integration, improved skills, attitudes and behaviors when compared to the control group. Another method cited in facilitating EBP was the multicenter study by Sarkies et al.11, which involved 25 hospitals in Australia and New Zealand, improved the adequacy of EBP in their services, especially on weekends, by providing material based on recent and relevant literature, directed by a trained professional to guide other colleagues for their correct clinical practice, thus seeking to maintain the quality of services even on days considered non-working days and with greater difficulty in obtaining qualified professionals.

Also as a suggested strategy to facilitate the implementation of EBP, a study conducted in Sweden involved the training of 28 professionals from a total of 277 guests, through the presentation of seminars and discussions that lasted 3 hours and occurred in 9 moments. At the end, the volunteers demonstrated increased scientific knowledge and greater ability to implement guidelines¹³. In the Philippines, 54 physical therapists received training for three months on EBP, the groups did scientific readings and prepared a literature evaluation form from a checklist containing aspects that contemplated validity, relevance and scientific applicability. The result of the study brought improvement in skills, as well as change in behavior and attitudes¹⁴. Also in 2007, a multiprofessional committee in Australia developed a guideline in order to promote the standardization of hospital procedures, thus facilitating the implementation of more appropriate clinical practices. The instrument can be freely accessed¹⁵.

Finally, it is understood that the interaction between clinical practice and scientific evidence depends on access to the best literature bases, available time, ability to search for relevant articles, and encouragement⁹. Among the barriers found to perform EBP, our research pointed to lack of time as the most cited (51.4%), followed by lack of ability to search for relevant literature and lack of findings in the literature about the population to which the patient belongs, 14.4% and 13.0%, respectively (Table 3). Other studies also cite the deficiency of professionals in the knowledge of statistics and the conduct of randomized clinical trials, their interpretation and application in the clinical practice of professionals^{6,16}.

Strengths and weaknesses of the research: although almost all regional councils understood the importance of the study and agreed to participate by sending the form to the registered professionals, we observed very little adhesion of the physical therapists contacted, a fact that directly implicated in our final sample. On the other hand, we emphasize that this is an unprecedented study on the abilities, behaviors and attitudes of Brazilian physiotherapists facing this daily challenge of evidence-based practice. The authors strongly wish that greater scientific awareness and desire be more and more impregnated in the formation and routine of professionals in Brazil.

CONCLUSION

The study showed that 95.9% of the sample affirmed that their clinical care is based on recent scientific literature, which is equivalent to say that EBP is inserted in the routine of Brazilian physical therapists. However, it is questionable whether the decision making is based on articles from relevant studies, since only 1.37% of the sample said they are fully capable of a quality scientific search. The main barriers pointed out for not doing an adequate EBP were insufficient time for reading and little ability for relevant scientific research, in this last question, it is clear that there is a need for a greater participation of academics in the insertion of an evidence based practice in the formation of professionals of excellence for an increasingly demanding market.

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