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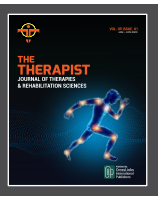

Original Article

Knowledge, Attitudes and Interest of Evidence Based Practice among Physical Therapist Working in Pakistan

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ABSTRACT

Evidence-Based Practice (EBP) is an approach that integrates the best available research evidence with clinical expertise and patient values to guide clinical decision-making. **Objectives:** To determine the knowledge, attitudes and interests towards Evidence-Based Practice (EBP) among physiotherapists in Pakistan. **Methods:** We surveyed 302 physical therapists working in Government and private settings in Pakistan via an online survey. The survey questionnaire encompassed four sections: (1) respondent characteristics; (2) knowledge of the principles of EBP as well as attitudes, interests, use and perceived efficacy of EBP. Data were analyzed using the SPSS version-23. **Results:** Overall 85% perceived EBP study is useful and necessary in PT clinical practice and 83% of respondents believed the importance of literature discoveries in regular practice and in improving the worth of patient care. Moreover, 77% showed interests to incorporate evidence increasingly in regular practice and 82% of participants were interested in seeking and enhancing proficiency to implement EBP in practice. **Conclusions:** Majority of physical therapists took part in this study held positive attitudes towards the role of EBP. Most participants were interested in incorporating their perceived roles in practice as a means of honing their skills.

INTRODUCTION

Sackett states Evidence-Based Practice (EBP) as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients by integrating individual clinical expertise with best available external clinical evidence from systematic research" [1]. A significant role for Evidence-based Practice in enhancing patient care is evident in literature [2]. EBP optimizes the practitioner's knowledge through current standardized evidence and provide uniformity in clinical decision-making globally in-patient care. Thus, it curtails the practical disparities in clinics [3]. EBP is a five-step process that requires attention at every stage. It is a process of making a problem into a clinical question, assimilation and evaluation of current evidence, incorporating one's own skills and preferences, before reevaluating the entire integration in order to reach the obvious conclusion. If necessary, repeat the steps [4]. Similarly, since 1992, evidence-based practice had

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widened its roots to the physical therapy and rehabilitation. McColl found in his study about the role of EBP in improving the quality of the patient care endorsed by many clinical practitioners [5]. However, for the successful implementation of EBP, some practitioner and organizational attributes play vital role and discrepancy in both or one character may impede the transfer of evidence into practice for the patient care. Practitioner attributes consist of knowledge, belief, attitudes, proficiency, and self-efficacy regarding EBP, also termed as EBP primary influencers. Organizational influences include internet availability to search and appraise literature, a resource person, specific library section, peer group facilitation etc. [6]. According to pollock *et al.,* although clinical physical therapists apparently regard the pivotal theory of EBP, but insufficient incorporation of clinical evidence into the decision-making process either due to weak practitioner attributes or organizational discrepancy halt the implementation of EBP and thus generate the practitioner and organizational barriers to practice [7-9]. Therefore, barriers to EBP driven by practitioners and organizational means are necessary to study and identify so the education infrastructure can fix this discrepancy and proceed with their aim of converting evidence into practice of physical therapy [10]. In Pakistan, physiotherapy is a growing field, and there is a growing awareness of the importance of EBP. However, the extent to which EBP is being practiced among physiotherapists in Pakistan is not well documented. Hence, this study aimed to determine the level of knowledge, attitudes, and interest among Pakistani physical therapists about Evidence Based Practice.

METHODS

A self-structured Google form questionnaire was used for this cross-sectional mail survey and sent via PPTA listed emails to accumulate data from the physiotherapists practicing in clinical settings in Pakistan. Via consent form, the aim and inclusion criteria of the study were informed. Inclusion criterion encompass graduated physiotherapists that are currently practicing in clinical setups and having a clinical experience of minimum ≥ 1 year. On the contrary, Physical therapists working merely in academic setups or practicing jobs other than clinical practice were excluded. Moreover, Students and graduated PT having no clinical experience or < 1-year experience were also excluded. All government and private hospitals, private clinics, and rehabilitation centers currently functional in Pakistan were included in the research setting. Participants were enlisted through the non-probability convenience sampling technique comprising male and female practitioners currently practicing in any functional clinical practice type in Pakistan**.** The exact number of Physical Therapists is not yet registered however, various physical therapy association revealed that in Pakistan, estimated number of physical therapists is around 10,000. Barriers to distant contacts still existed and the risk of ghosted therapists was also evident. Hereby, from the PPTA list, physiotherapists at active status were considered around 2000, and beyond the PPTA list, practitioners in the vicinity of Faisalabad (≥ 200) were considered. Using the online Sample Size Calculator keeping Confidence Level 90%, the sample size was calculated as 300-309 [11]. To avoid biases and for the effectiveness of results, members beyond inclusion criteria were withdrawn from the study and the final sample size recorded was 302 after fulfillment of the sample recruitment procedure. A questionnaire was generated by Google, and only those who agreed "Yes" were enrolled. On the preliminary page of the survey questionnaire, there is an informed consent section with aims and instructions about the survey, as well as a privacy statement and query. Google based questionnaire was conditional to previous researches listed questions [12-14]. The study questionnaire is bounded with 4 sections; Section A has contained respondent's demographics variables encompassing 11 items regarded as: Name, Age, Gender, Highest Qualification, Specialization, Clinical Experience, Number of patients seen per day, primary practice type, Employment status of the Physical Therapist. Section Two to identify the effectiveness of evidence-based practice (Q12-23) which was further collapsed into two sub-groups later in data analysis in order to examine the attitudes and beliefs of respondent's physical therapists towards evidence-based practice (Q12, 13, 15, 17-20) and interest and perceived role in EBP (Q14, 16, 21-23) respectively. regarding EBP making the complete questionnaire of 33 items. For section B and C, respondents made their agreement with the statement of items based on 5-item Likert Scale having options for response, “strongly disagree”, “disagree”, “neutral”, “agree”, “strongly agree” ascending. This initial draft was forwarded for comments, addition, and subtractions, to Supervisor who have great command in Evidence-based practice. The questionnaire modified in light of their comments was as Survey Questionnaire. This procedure is based further on Lynn *et al.,* and Iles *et al.,* [15, 16]. Statistical Package of Social Sciences (SPSS version 23.0) was used for the execution of data analysis. Data were carefully examined, reviewed, and analyzed during data entry and data analysis by both researchers.

RESULTS

The finding of the study shows that out of 302 respondents who actively participated in this research via google sent questionnaire, 113 (37.4%) were male and 189 (62.6%) were

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female. Most of the respondents fell in the age category 26-30 years encompassing around 44.4% (n=134) presence there, 125(41.4%)respondents came under the category 21-25 years and 43 (14.2%) respondents were above 30 years old. Furthermore, 156 (51.7%) respondents were those who were highly qualified till DPT. Out of the 191 specialized respondents, 53 (17.5%) were specialized in Orthopedic Physical Therapy(Table 1).

Table 1: Demographic information of the participants

Variables	Level	Frequency (%)
Age	21-25 years	125 (41.4)
	26-30 years	134(44.4)
	>30 years	43(14.2)
Gender	Male	113(37.4)
	Female	189(62.6)
Highest Qualification	DPT	156(51.7)
	MS/M.PHIL	141(46.7)
	PhD	5(1.7)
Specialization	Non-Specialized	111(36.8)
	Specialized	191(63.2)
Type of Specialization	Musculoskeletal Physical Therapy	51(16.9)
	Orthopedic Physical Therapy	53(17.5)
	Cardiopulmonary Physical therapy	23(7.6)
	Sports Physical Therapy	28(9.3)
	Neurological Physical Therapy	36(11.9)
Clinical Experience	1-5 years	250(82.8)
	6-10 years	31(10.3)
	>10 years	21(7)
No. of Patients seen per day	15-Jan	194(64.2)
	16-30	77(25.5)
	30-50	31(10.3)
Primary practice type	Govt. Hospital	73(24.2)
	Private Hospital	97(32.1)
	Private Clinic	90(29.8)
	Rehabilitation Center	42(13.9)
Employment Status	Full time	170(56.3)
	Part-time	132(43.7)
City	Islamabad	49(16.2)
	Lahore	87(28.8)
	Faisalabad	116(38.4)
	Rest of Punjab	50(16.6)

Table 2 provides the percentages of respondents by the category of their responses i.e., disagree, neutral, and agree. The characteristics of such categories were concerning the EBP education, attitudes and beliefs, interests and perceived role that EBP studies may provide. The percentage of characteristics of the first section of Education inferred participants showed diversity in whether they had learned the foundation of EBP after the academic program, formal training for finding research literature, or critically evaluating it or not. The results showed that about 66.2% of respondents agreed on the characteristic attribute of Education that they had learned EBP education as a part of their academics. 9.9% disagreed with getting such education while 23.8% were not sure about their inclination toward EBP education so they have opted Neutral. The percentage of characteristics of the second section Attitudes and Beliefs inferred that the participants substantially exhibited positive responses towards attitudes and beliefs concerning the EBP.

Table 2: Physical Therapist Knowledge, attitudes and interests towards EBP

Characteristics	Frequency	Response (%)		
		Disagree a	Neutral	Agree b
Knowledge & Attitudes & Beliefs				
I learned the foundations for EBP as part of my academic preparation.	302	9.9	23.8	66.2
I have received formal training (e.g., workshops, courses) in search strategies for finding research relevant to my practice.	302	18.2	24.2	57.6
I received formal training in how to critically evaluate research literature as part of my academic preparation. Received	302	17.2	27.2	55.6
Application of EBP is necessary in the practice of physical therapy.	302	8.3	6.6	85.1
Literature and research findings are useful in my day-to-day practice.	302	9.3	7.9	82.8
The adoption of EBP places an unreasonable demand on physical therapists.	302	34.1	30.8	35.1
EBP improves the quality of patient care.	302	8.6	8.9	82.5
EBP helps me make decisions about patient care.	302	8.6	10.6	80.8
EBP does not take into account patient preferences (i.e., patients' reported values and preferences for treatment).	302	44.4	27.5	28.1
There is a definite divide between research and practice.	302	19.9	26.8	53.3
Interests & perceived role				
"I need to increase the use of evidence in my daily practice."	302	8.9	14.6	76.5
"I am interested in learning or improving the skills necessary to incorporate EBP into my practice."	302	8.9	9.6	81.5
"Physiotherapists should be responsible for conducting their own literature reviews to answer their clinical questions."	302	10.9	16.6	72.5
"Physiotherapists should be responsible for critically evaluating the quality of the literature to address their clinical questions."	302	11.6	13.9	74.5
"Physiotherapists should be responsible for interpreting whether research findings apply to their individual patients."	302	10.6	14.6	74.8

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[a] Response category of "strongly disagree" & "disagree" were combined

[b]Response category of "strongly agree" & "agree" were combined

Plenty held the belief that an EBP study is necessary for physical therapy practice (85%), and 83% of respondents believed the importance of literature discoveries in regular practice. 83% thought EBP is improving the worth of patient care. 81% of participants saw EBP as a helping material for decision-making about patient care. 53% held the opinion that there's a definite divide between literature and research. While equal percentage division had been seen in the attribute where 35% of respondents agreed and 34% of respondents disagreed on EBP adoption had placed an unreasonable demand on physical therapists. The finding of the current study showed that 77% PTs showed interests to incorporate evidence increasingly in regular practice. 82% of participants were interested in seeking and enhancing proficiency to implement EBP in practice.73% thought they should be responsible for conducting their literature reviews to response the clinical problems. 75% were concerned that they should be responsible for critically evaluating the quality of the literature. 75% believed that physiotherapists should be responsible for understanding research discoveries (Figure 1).

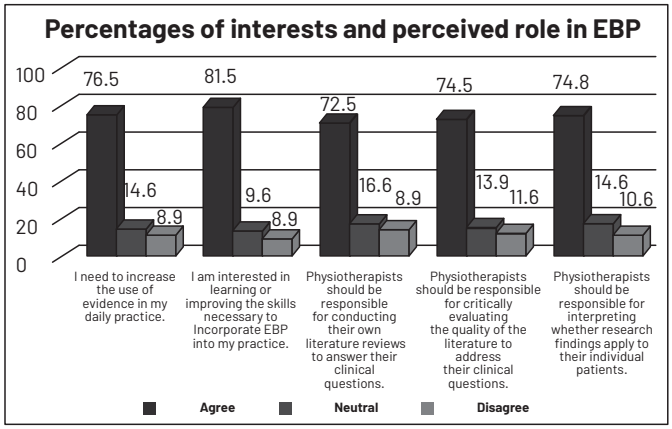

Figure 1: Percentages of interests and perceived role in EBP

DISCUSSION

In Pakistan, physiotherapy is a growing field, and there is a growing awareness of the importance of EBP. However, the extent to which EBP is being practiced among physiotherapists in Pakistan is not well documented. Overall, majority of respondents held positive attitude toward the knowledge and usefulness of EBP. However, there is a difference in apparent knowledge and demonstration of actual knowledge plus skills in practice. Italian study called this insufficiency an overrated knowledge and risk to insufficient practice [17]. The survey findings of our study are acquainted with those of Canadian study 2007, Colombian study 2015 and Brazilian study 2020 as they concluded positive attitudes towards the usefulness of EBP [12, 18, 19]. One study conducted in 2018 investigated the knowledge and attitudes of physiotherapy students in Pakistan towards EBP. The study found that while most students had a positive attitude towards EBP, their knowledge of EBP principles was limited. Given that EBP enhanced the treatment quality and treatment decision status by 83% and 81% in our study, Brazilian study declared by 90 and 94% due to more reliance on patient management model and Canadian study by 84% and 78% respectively [12, 19]. Despite of overwhelming positive attitudes by 80 to 90%, only 44% of the respondents considered patient's preferences as part of EBP. Similar results were shown by Italian study [17]. Brazilian and Swedish study somehow resulted better 53% and more than 50% respectively [19, 20]. This discrepancy in our and former study is evident from the fact that direct access to physical therapists is not entirely practiced in Pakistan yet making the whole EBP process less applicable as compared to the countries showing positive results [17]. Around 65% individuals chosen that EBP places inflexible conditions on physical therapists and more than half of the population agreed on gap existing between research and practice. Previous researches such as APTA and Canadian survey also had gathered similar results regarding role of attitudes towards EBP [12, 14]. More than 70% respondents believed to increase need of evidence into practice, for learning new skills for EBP implementation, for conducting own literature reviews, critically appraise them and learn to interpret the research findings into practice showed interests and perceived role wasn't seemed to be setting up any barrier in EBP implementation into practice as similar results were evident in Canadian study held in 2007 [12]. Characteristics associated with interests were not seemed setting up any barrier to EBP implementation into practice. More than 70% of respondents believed to increase the need for evidence in practice, learning new skills for EBP implementation, conducting own literature reviews, critically appraising them, for learning interpretation of research findings into practice. In a Canadian study in 2007, similar results had been found about the perceived roles in EBP with the exception that around 50% did not agree with the statement that conducting research is a responsibility of physical therapists [21]. However, unlike the Canadian study where 45% of respondents were >15 years of clinical experience physiotherapists, our study figured out 83% were less than 5 years of clinical experience, and the youngest physiotherapists recognized more the importance of literature findings and their role in their practice. Moreover, the current study has highlighted the gap that existed between apparent and actual knowledge in practice which is unique in its type when compared with

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other studies in Pakistan. However, response rate was lower than expected as many mails were not responded.

CONCLUSIONS

Majority of physical therapists took part in this study held positive attitudes towards the role of EBP. Most participants were interested in incorporating their perceived roles in practice as a means of honing their skills. Overall, it appears that while there is growing awareness of EBP among physiotherapists in Pakistan.

Authors Contribution

Conceptualization: SA
Methodology: LM, ST
Formal analysis: LM, ST, MK, GI, NA
Writing-review and editing: SA, LM, MK, GI, TG

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest

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