

Evidence-Based Practice Utilization among Physiotherapists in Jakarta and the surrounding area Indonesia

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Abstract

Objective: This study aimed to explore the profile of evidence-practice implementation and its associated factors among Indonesian Physiotherapists in Jakarta and the surrounding area, Indonesia. **Methods:** This study was a cross-sectional design and a proportional sampling technique used to calculate the minimum sample as population representative. Twenty-one public and private hospitals and around 104 full-time registered Physiotherapists participated in this study. The study adopted the instruments which have been established to investigate the attitude of Physiotherapists towards Evidence-Based Practice which was developed by Jette (2013). Univariate analysis and logistic regression were employed to see if there are significant relationships between the predictors and outcome. **Results:** The participants in this study were less than 40 years (61.5%). Participants have been recognized as having worked in the field of physiotherapy with a duration of fewer than ten years (43.3%). For educational background, the participants who certified as Bachelor of Applied Science (B.Sc) was 21.2%. The results revealed the association between predictors and EBP implementation. Physiotherapists who admit that they were doing self-learning in seeking information and other additional more likely to have a positive attitude towards EBP (OR=1.472). Similarly, working in physiotherapy for more than ten years was positively associated with EBP implementation (OR = 1.009). **Conclusion:** In general, self intention to develop their skill and their knowledge on EBP and also the duration of working as physiotherapists were contributed to influencing the attitude of physiotherapists toward Evidence-Based Practice. In future studies, the understanding level of EBP terms should be distinguished. Hence, it could differentiate the physiotherapists from the low-level to the high-level according to their understanding of EBP.

Key Words: Evidence-based, Implementation, Associated factors, Physiotherapy, Indonesia.

East J Healthc, 2 (1), 29-33

Submission Date: 23/12/2021 Acceptance date:06/02/2022

1. BACKGROUND

Evidence-based practices (EBP) are needed to improve the quality of patient care in daily practice, especially in physiotherapy healthcare services [1]. Physiotherapist, as professional health practitioners, is obliged to provide excellent health services, which are based on the best research evidence in clinical decision making [2]. Further, clinical decision-making in the physiotherapy field is central to the autonomy of

professional practice, therefore this process and skills in critical thinking and problem-solving are used to determine decisions and actions that are appropriate in handling patients effectively [3-5]. EBP itself combines attention, interest, cognition, and psychomotor aspects to make decisions about diagnosis, intervention, and to provide an explanation to the patient about the description of the disease [6, 7].

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Several studies have been conducted regarding professional ability that has mainly focused on physiotherapy professionalism aspects such as self-development, organizational support, and other individual factors related to the practice of evidence in order to enhance patient satisfaction and allow them to undertake ethical decision-making in health services [8-12]. Among the regions in South Asia, previous research has been conducted in the Philippines and Malaysia [13, 14]. There are a few studies that examined the Physiotherapist's attitude towards EBP in the health care setting. However, more in-depth research on matters related to the implementation of EBP among Indonesian physiotherapists is needed. This study aimed to determine the factors that influence physiotherapy decisions to apply evidence-based into clinical practice. The primary purpose of this study consists of two main parts. First, describe the physiotherapist's profile related to EBP implementation, such as individual characteristics, self-development, and organizational support. Second, to investigate the factors that influence Physiotherapists' decision on implementing Evidence-Based as health professionals in day-to-day work.

2. METHODS

This study was a cross-sectional study conducted in both public and private health services located in Jakarta and the surrounding area, Indonesia. The determination of the minimum sample has used a guideline from RISFASKES (national research on health facilities) by the Jakarta region in the year 2013. The proportional sampling technique was employed to calculate the number of participants. Around 21 physiotherapy units had been authorized to be set as the subject in this study. There were either public (6 units) or private (15 units) involved, and finally, 104 physiotherapists were recruited proportionally from each group to be engaged as participants. To measure the physiotherapist's attitude towards EBP, we referred to the validated instrument established by Chimdi [4]. The tool was adopted and modified to full fill the study requirement. The instrument consisted of some sub-topics which are described as the following variables such as socio-demographic, organizational support, and Physiotherapy's self-learning towards the source of information they need in order to develop an ethical clinical decision making, and the role of the corporate support to set them free to enhance their both soft and hard skill in Physiotherapy. The

instrument was checked for its validity and was spread out to measure the individual's personal competence in the Australian health care setting. Univariate analysis and logistic regression were employed to determine the correlation where associations were found.

3. RESULTS

The univariate analysis presents the distribution of participant characteristics, as shown in table 1. The participants in this study were generally less than 40 years (61.5%). Participants have been recognized as having worked in the field of physiotherapy with a duration of fewer than ten years (43.3%). For educational background, most of the participants were certified as diplomas (78.8%), while those who had undergraduate science certificates (21.2%). The results of this study have classified participants into two types based on institutional status. Those who work in private institutions (55.8%) are slightly larger than government institutions (29.8%). Around 60.6% of participants felt that they had been supported by the conditions they worked to improve their skills and knowledge related

Table 1. Characteristics of participants

Variables	Percent Distribution N = 104	
	(%)	(n)
Physiotherapists age		
Less than 40 years old	61.5	64
Above 41 years old	38.45	40
Working duration as physiotherapist		
Less than ten years	43.3	45
More than 11 years	56.7	59
The Last degree in physiotherapy		
Diploma	78.8	82
Bachelor of science	21.2	22
Type of institution the physiotherapist work		
Public	29.8	31
Private	55.8	58
Perceived organizational support		
Fully supported	60.6	63
Lack of support	39.4	41
Self-learning/self-development in clinical information sources		
Frequently	77.9	81
Seldom	22.1	23

to clinical decision-making to the needs of patients. Physiotherapists who have started themselves to find related information to support their clinical skills in clinical practice are calculated at around 22.1%.

a sense of self-fulfillment in broadening their self capacities [14]. Physiotherapy with a Bachelor of applied science (B.Sc) degree has been set to predict Physiotherapists' decision to EBP in a positive direc-

Table 2 Analysis of logistic regression between associated factors EBP implementation

Variables	B	OR	P-value	95% CI	
				lower	upper
Age					
Less than 40 years	1.182	3.260	0.072	0.899	11.830
The current physiotherapy education					
Bachelor of applied science a	0.802	2.231	0.177	0.696	7.149
Working duration					
More than ten years	1.388	3.811	0.035*	1.099	13.216
Self-learning/self-development in utilizing information sources					
Frequently ^a	1.495	4.461	0.008*	1.472	13.518
Perceived organizational support					
Fully supported	0.145	1.156	0.784	0.409	3.267
a = reference category					
*Significant value P < 0.005					

The results revealed some of the significant correlations between variables, which are shown in table 2. Logistic regression result shows that physiotherapists who were admitted that they were doing self-learning in seeking information and other additional knowledge related to patient conditions were significantly associated with a positive attitude towards EBP ($P < 0.05$). Additionally, the learning process that is formed frequently is in line with the behavior of applying EBP ($OR = 1.472$). Similarly, working as a physiotherapy for more than ten years is also found positively associated with EBP implementation ($OR = 1,009$, $P\text{-value} < 0.05$). This study has failed to find other predictors such as age, background education, and organization support perception associated with the attitude towards EBP.

4. DISCUSSION

This study investigated the profile and the factors associated with EBP implementation among Physiotherapists in Jakarta and the surrounding area. According to the results, this study failed to find a significant relationship between young age and evidence-based practice behavior in day-to-day work. This is contrary to the previous research, which found that young age determines individuals to develop themselves in terms of learning towards EBP. Young age predicts the intention to learn from

tion. However, the results of the logistical analysis of this study did not find an association between the study level of the B.Sc degree and the tendency to make evidence-based decisions. Contrarily, several studies a study found that a higher educational level demands the development of concepts and knowledge [15, 16]. It has an essential role in providing provision to physiotherapists to think logically and systematically based on recent evidence. Hence, it could bring the basis of thinking to fulfill the patient's needs through the effectiveness and efficiency of treatments.

In the context of the working duration as a physiotherapist, there was a significant relationship shown against the behavior of applying the evidence base. The experience of working as a physiotherapist determines the behavior of Physiotherapy, which this study shows the Physiotherapist tend to behave well in evidence-based implementation. This is also indicated by a survey by Gerrish, which stated that working senior physiotherapists will make a significant contribution to clinical decision-making based on scientific and current sources.

The self-development factor towards scientific knowledge and scientific data based has a significant role in EBP. In this study, physiotherapists who have

the intention to continue to update science and the latest data have a substantial role in changing expected behavior towards evidence-based. The previous studies confirmed that the purpose and motivation in self-development played a significant role in increasing the ability to find sources of evidence to support the creation of effective and safe services for patients [2, 17, 18].

The study has indicated some limitations during the survey. First, the term Evidence-Based Practice may not commonly and adequately be understood by Physiotherapists in this study, either in reference to the terminology itself or the definition. This could be caused by ambiguity in terms of explanation during the survey. To some extent, these factors have the possibility to affect the research subject when they are filling out the questionnaire. Although the study has been arranged the concept from recent journals. However, the idea of this study is still considered incomplete and debatable factors. In the next future, there are other multifactor that should be involved in relation to the Physiotherapist's decision in the implementation of EBP, such as the circumstances of the system, culture, history, regulation, and policy related to self-development and decision-making authority [13].

5. CONCLUSION

In general, this study found that self-learning and working duration were considered to be predictors of attitude in EBP. Future studies are needed to assess the interconnections and relationships between and around the proficiency of seeking relevant scientific evidence on their professional performances. Other specific topics would be related to the environmental support, and other determinants such as the physiotherapist's workplace needs, the management system in place, current policies, and the regulations regarding the physiotherapist's professional and self-development focused on clinical reasoning. Evidence-based practice is still quite complex to understand and needs more specific training or certification on EBP.

6. ETHICAL CLEARANCE

The ethical clearance was obtained for the research project.

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