Hong Kong Physiotherapy Journal (2017) 37, 10–18

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.hkpj-online.com

RESEARCH REPORT

Knowledge, attitudes, and barriers towards evidence-based practice among physiotherapists in Malaysia

Hannah C. Yahui, BSc (Hons) Physiotherapy, Narasimman Swaminathan, MPTh*

Faculty of Health and Life Sciences, INTI International University, Nilai, Malaysia

KEYWORDS
evidence-based practice;
physiotherapists

Abstract *Background:* Recently, there has been an increased need for all healthcare disciplines to provide interventions that are effective and evidence based. This has led to more implementation of evidence-based practice (EBP) in clinical settings. Following this, research regarding EBP gained attention to determine its uptake into the physiotherapy profession. Although there are numerous studies to determine the attitudes and barriers of physiotherapists towards EBP, most of them were done in developed nations. As for Malaysia, little research has been carried out, much less among physiotherapists.
Purpose: The purpose of this study was to identify the knowledge, attitude, and barriers towards the implementation of EBP among physiotherapists in Malaysia.
Methods: A survey was conducted among the members of the Malaysian Physiotherapy Association and other practicing therapists in Malaysia. One hundred and two responses were collected throughout a span of 2 months.
Results: Respondents agreed that EBP is necessary to practice and that it helps in decision making as well as improving patient care. Eighty-one percent of the respondents either agreed or strongly agreed that they had received formal training in EBP. However, 61% of the respondents reported that strong evidence is lacking to support their interventions. Thirty percent of the respondents reported reading <2 articles per month, with 57% stating that they read two to five articles in a typical month. This study also found time constraints, limited access to search engines, and lack of generalizability of research evidence as the top three barriers to implementing EBP.
Conclusion: Physiotherapists in Malaysia had a positive attitude towards EBP and are inclined towards implementing evidence into their clinical practice. They are interested in attending courses to improve their knowledge and skills in EBP.

* Corresponding author. Faculty of Health and Life Sciences, INTI International University, Persiaran Perdana Nilai, Nilai 71800, Negeri Sembilan, Malaysia.
E-mail address: narasimman.swaminathan@newinti.edu.my (N. Swaminathan).

http://dx.doi.org/10.1016/j.hkpj.2016.12.002

Introduction

Evidence-based practice (EBP) is considered as a cornerstone in the current era of clinical practice. In line with other healthcare professionals, physiotherapists are also using highest quality of research evidence in their clinical practice. In 2003, the World Confederation of Physical Therapists declared a policy statement on EBP, in which they stated that "physical therapists have a responsibility to use evidence to inform practice and ensure that the management of patients/clients, carers, and communities is based on the best available evidence" [1].

The implementation of EBP in any clinical setup involves five As: (1) ask a clinical question; (2) acquire the best evidence; (3) appraise the evidence for its validity; (4) apply the evidence with clinical expertise and patient values; and (5) assess the effectiveness of the process. Inability to carry out any one of these steps may constitute a barrier to EBP. Several studies conducted among various healthcare professionals have identified lack of time as the greatest barrier to implement EBP [2–7], apart from limited access to information and a lack of good information technology support [8,9]. Other barriers reported include a lack of search skills [2,3,7,9] and difficulty in applying evidence in the patient population [2,6–8].

Besides, the use of evidence in practice also relies on the physiotherapists' knowledge in searching for and appraising journal articles, and their attitudes regarding EBP. Research regarding the knowledge and attitudes of physiotherapists towards EBP has mostly been done in developed countries. In Malaysia, little research has been done and has focused on healthcare professionals in general, with fewer responses from the perspective of a physiotherapist [4]. The objectives of this study were to: (1) identify the Malaysian physiotherapists' knowledge and skills in searching for evidence and evaluating available evidence; (2) attitude towards the value of EBP; and (3) perceived barriers towards the implementation of EBP.

Materials and methods

A survey was conducted using a structured questionnaire among the physiotherapists of Malaysia. The survey tool was developed based on published literature, and content of the survey tool was validated by three experts [4] (Appendix). The constructed questionnaire contained two sections. The first section enquired about the sociodemographic data, while the second section consisted of questions related to the knowledge, attitudes and barriers towards EBP. The questionnaire consisted of a four-point Likert scale, dichotomous, and open-ended questions. The final questionnaire consisted of questions to identify knowledge about the EBP process, literature retrieval, and critical appraisal skills, apart from questions to explore the attitudes and beliefs about EBP. Respondents' perceived barriers on implementing EBP were also questioned. This study was approved by the Institutional Review Board.

In the first phase participants were approached with permission during the Malaysian Physiotherapy Association annual general meeting. The study was explained to the participants and written informed consent was obtained. Out of 80 distributed questionnaires, 75 were returned. The practicing therapists were approached through the Facebook group, with 274 members yielding 27 responses. A total of 102 participants completed the survey.

Data analysis

Data were analyzed using SPSS version 20.0 (SPSS Inc., Chicago, IL, USA). Response frequencies to the survey questions were determined and presented in tabular and graphic formats. After examining the response frequencies, the variable categories were collapsed, and the Likert scale data were collapsed in to two categories instead of four (agree and strongly agree as one category and disagree and strongly disagree as another category) prior to analysis of the associations between the variables.

Pearson's χ^2 test for independence was conducted to examine the following associations: (1) responses to items measuring education, knowledge, and skills; attitudes and beliefs; use of literature; and access to and availability of evidence with items measuring age, highest degree attained, and work experience (years); (2) responses to items measuring attitudes and beliefs with items measuring access to information; (3) responses to items measuring use of the literature with items measuring the number of physical therapists in practice settings, number of patients seen in an average day, and the number of hours worked in an average day; and (4) responses to items measuring access to and availability of evidence with items measuring the type of practice facility and the number of physical therapists in the facility. Cramer's V was then used to determine the strength of correlation where associations were found. The level of significance was set at $p < 0.05$.

Results

The characteristics of the respondents are presented in Table 1. The majority of the respondents were from the age group of 25–34 years (85.3%), and 52.9% had a Bachelor's degree. A small majority (57.8%) of respondents had 2–5 years of work experience. More than half of the respondents reported that they had undergone formal EBP training (Figure 1); 72.5% of them were confident with search skills; and 57.8% were confident about appraisal. Among the respondents, 66.7% expressed interest in using evidence in practice, whereas 95.1% perceived that EBP is helpful in clinical decision making (Figure 2).

When questioned about accessibility to the evidence, 88.3% of respondents had access to the search engine (Figure 3). There were significant associations between qualifications, specialization, and work experience, and the number of articles read monthly (Table 2). Insufficient time has been identified as the top barrier for implementing EBP by the respondents, followed by limited access to search engines (Figure 4). Inability to apply EBP to the population, and lack of research skills and interest were also perceived as barriers by the respondents (Figure 5).

Table 1 Characteristics of respondents.

Characteristics	No.	%
Sex		
Male	27	26.5
Female	75	73.5
Age (y)		
25–34	87	85.3
35–44	11	10.8
45–54	3	2.9
≥55	1	1
Working experience (y)		
2–5	59	57.8
>5	24	23.5
>10	7	6.9
>15	7	6.9
>20	5	4.9
Highest degree		
Diploma certificate	45	44.1
Bachelor's degree	54	52.9
Master's degree	1	1
Doctoral degree	2	2
Area of practice		
Government hospital	22	21.6
Government health clinics	1	1
Private hospitals	30	29.4
Private clinics	33	32.4
Home care	3	2.9
University	4	3.9
Own practice	9	8.8
Geographical area of practice		
Kuala Lumpur	41	40.2
Selangor	26	25.5
Melaka	10	9.8
Negeri Sembilan	5	4.9
Perak	1	1.0
Penang	5	4.9
Johor	4	3.9
Terengganu	1	1.0
Pahang	1	1.0
Kedah	2	2.0
Kelantan	1	1.0
Sabah	2	2.0
Sarawak	3	2.9
Work (h/wk)		
<20	10	9.8
20–30	10	9.8
30–40	34	33.3
>40	48	47.1

Discussion

Results of this survey demonstrated an association between age and learning the foundations of EBP. The majority of respondents were from the younger generation, and they have learned the foundations of EBP during their entry level program, compared with respondents who were in the older age group. This may be due to the introduction of EBP in the physiotherapy curriculum in the most recent decade. Dorsch et al [10] and Green and Ellis [11] both reported that the introduction of EBP in the academic curriculum improves the physician residents' skills in critical appraisal.

The participants of this survey had a positive attitude towards EBP. Most of the participants (57.8%) agreed that EBP is necessary for their day-to-day practice and EBP is required to provide higher quality service for their patients (60.8%). Findings of this survey are similar to those of Iles and Davidson [9] and Akinbo [12].

Most (61.7%) of the respondents observed a lack of strong evidence in their interventions for their patients. This was reflected in a study by Cup et al [13], in which they found limited evidence to support the interventions used for the management of chronic neurological conditions.

Only 30% of the respondents reported that they read <2 articles in a typical month, and 20% of the respondents reported that they either never or rarely consulted literature and research findings for their clinical decision making. This finding did not correlate with the studies by Jette et al [2] and Akinbo et al [12], in which 17% and 8% of their study respondents read <2 articles in a typical month, respectively. This could be attributed to the fact that there is lack of access or awareness to journal articles among physiotherapist in Malaysia [4]. However, according to a study of 124 Australian physiotherapists by Iles and Davidson [9], it was found that 43.9% indicated they either "never" or "less often than monthly" integrated research evidence with their expertise [9]. A study of 106 musculoskeletal Kuwaiti physiotherapists [14] found that physiotherapists relied very minimal research findings for day-to-day clinical decision making.

This survey found relations between the respondents' highest earned qualification and the number of research articles read per month, and the rate of use of literature in decision making. These associations were reflected in a study of 270 Canadian physiotherapists by Salbach et al [15], in which a relationship was found between academic preparations in EBP and self-efficacy to implement EBP. The respondents who do not possess a postgraduate degree and who have less working experience are less likely to be engaged in EBP.

For EBP to be used effectively in clinical practice, consideration should be given to the availability of information technology support. Most of the respondents reported that they have access to search engines, although more had access at home (81%) than at work (68%). This finding was consistent with that of Jette et al [2] and Ramirez-Velez et al [3].

A study by Brown et al [16] among 40 physiotherapists in the United States reflected similar results to the present study. They reported that all respondents had computer access either at their facility or at home, with 80% of the respondents stating that they have computer access at home. The greatest proportion of respondents accessed the internet two to five times per week, which is consistent with the present study.

The barriers identified in this study were reflected in other studies among physiotherapists [2,3,8,9,12], nurses [17–20], and physicians [21,22]. The primary barrier to implementing EBP was lack of time. Respondents to this survey also mentioned that they found it difficult to consult related literature due to high workload, which resonated with a study by Hannes et al [8] among physiotherapists in Belgium. In the UK, Igo [23] found that, although the

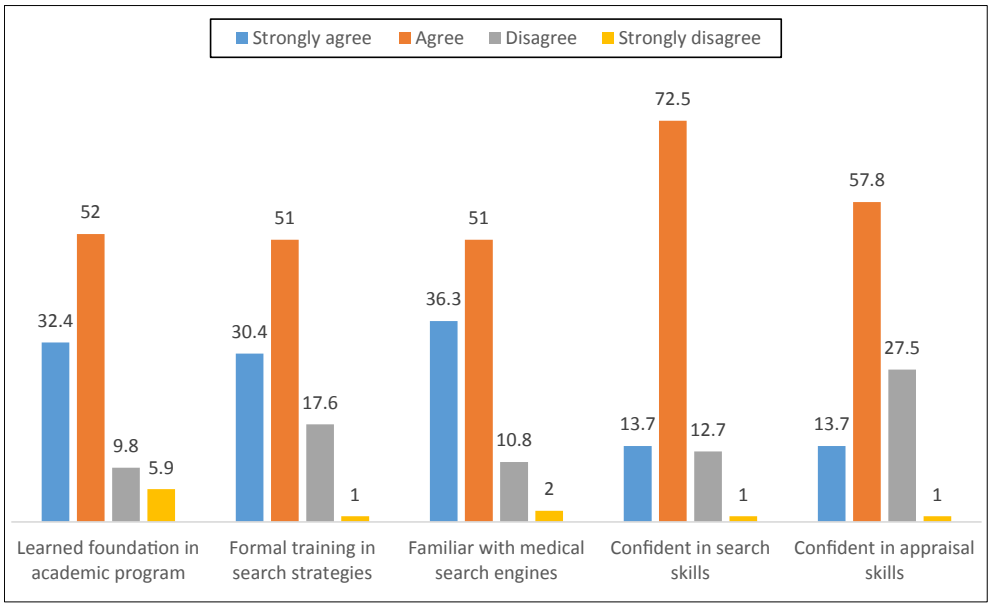

Figure 1. Self-reported education, knowledge and skills on evidence-based practice.

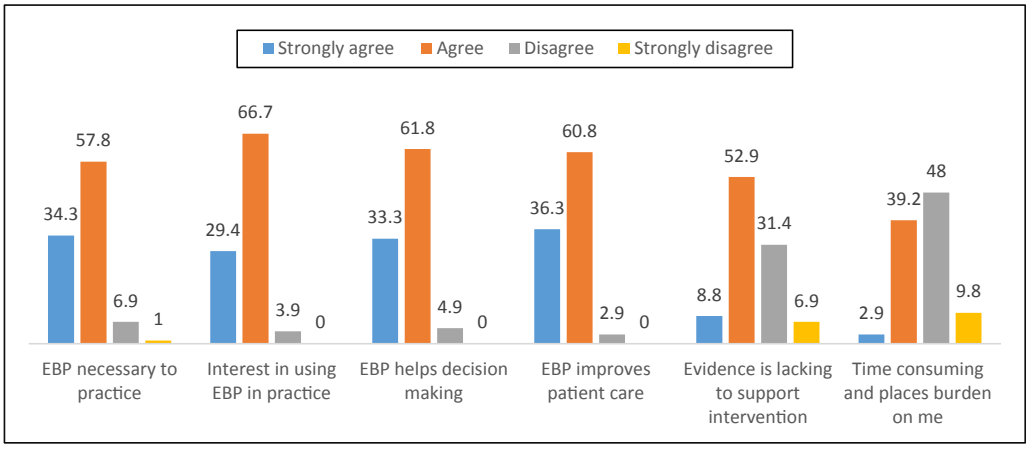

Figure 2. Self-reported attitudes and beliefs. EBP = evidence-based practice.

respondents understood the process of appraising a research article, it was still considered a demanding and time-consuming process. Organizations may therefore discourage activities related to EBP during working hours, as it is more cost effective for employees to spend time attending to patients than to be involved in EBP.

Other barriers identified in this study were a limited access to search engines and journal articles and an

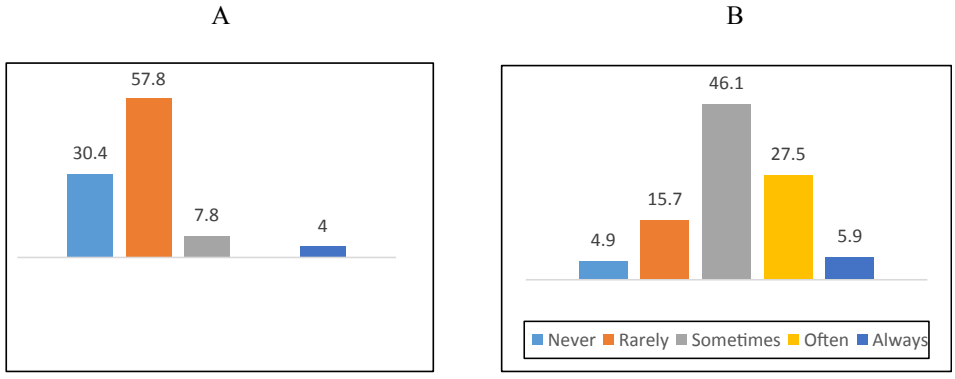

Figure 3. Self-reported access to search engines. (A) Self-reported articles read per month; (B) self-reported use of evidence.

Table 2 Factors associated with the literature consultation.

Variables		Results		
Dependent	Independent	χ^2 (df)[a]	p[a]	V[b]
No. of research papers read per mo	Age	7.405 (9)	0.595	—
	Highest degree	24.615 (9)	0.003*	0.284
	Specialization	11.222 (3)	0.011*	0.332
	Working experience (y)	28.359 (12)	0.005*	0.304
	Type of practice facility (public/private sector)	3.380 (3)	0.337	—
	No. of physiotherapists in practice setting	12.014 (12)	0.445	—
	No. of patients seem in an average d	14.985 (12)	0.242	—
	No. of h worked in an average d	9.086 (9)	0.429	—
Use of literature in decision making	Age	9.497 (12)	0.660	—
	Highest degree	27.3727 (12)	0.006*	0.301
	Specialization	4.734 (4)	0.316	—
	Working experience (y)	20.505 (16)	0.198	—
	Type of practice facility (public/private sector)	4.944 (4)	0.293	—
	No. of physiotherapists in practice setting	14.658 (16)	0.550	—
	No. of patients seen in an average d	16.615 (16)	0.411	—
	No. of hours worked in an average d	15.254 (12)	0.228	—

* Significant at $p \leq 0.05$, $n = 102$.
[a] Pearson χ^2 test for independence, $n = 102$.
[b] Cramer's V test.

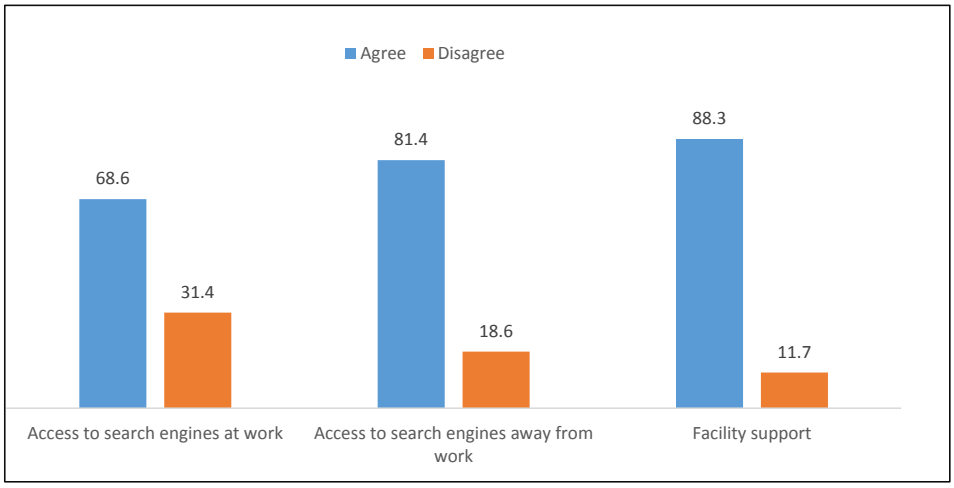

Figure 4. Self-reported access to search engines (in percentage).

inability to apply research findings to their patient population. Even though journal articles are now available online through various databases, some of them requires a fee or membership for access. Another study among Malaysian healthcare practitioners also found that a lack of information technology support in their facilities increased the difficulty of implementing EBP [4]. This was not reflected in a study among physiotherapists in the United States [2], in which only ~20% of the respondents chose lack of information resources as a barrier.

Our study had some limitations. Although all efforts were made to reach out to a population as diverse as possible, the dissemination of the questionnaire did not match the expectations of the authors. The respondent population was not big enough for the findings of this study to be generalized among the whole country. Some of the cited papers were published prior to 2006 and the current situation in other parts of the world may be different.

The findings of this study, in the authors opinion, have implications for the educational, clinical, and research communities. A majority of the respondents in this study have <5 years of work experience, and thus it can be assumed that most of the respondents only graduated recently. However, journal readership is low among the majority of the respondents, therefore, the education community may have a role to play in promoting the use of evidence bases in their education curricula, so that students develop the habit of referring to journal articles to answer their clinical questions.

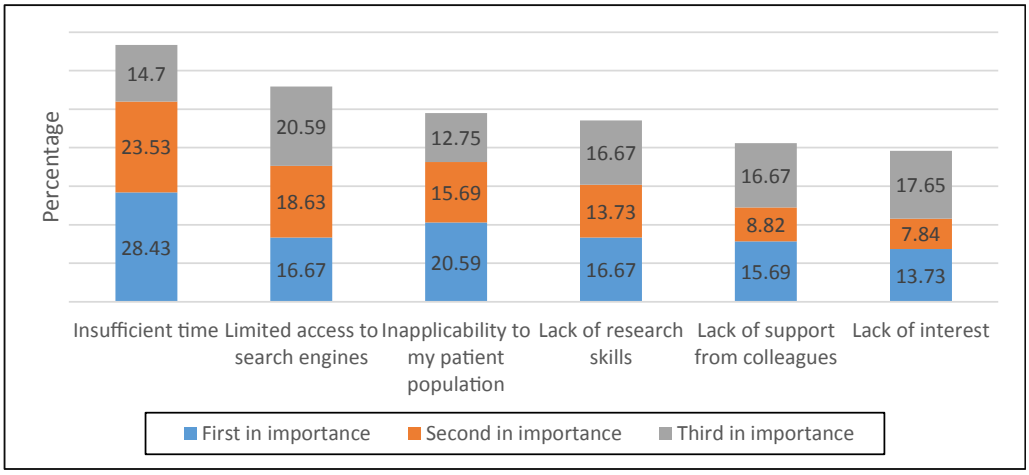

Figure 5. Self-reported ranking of barriers to evidence-based practice (in percentage).

Conclusion

Physiotherapists in Malaysia have good knowledge on EBP and show a positive attitude towards implementing it. Furthermore, the respondents also have generally positive attitudes towards EBP. A majority of the respondents indicated an interest in adopting EBP in their clinical setup. Findings of this study may provide a base for implementing EBP in different clinical settings by understanding the barriers from the perspectives of different countries.

Conflicts of interest

We hereby declare that there is no conflict of interest related to this study.

Funding/support

This work did not receive any financial or material support.

Authors' contributions

Conception and design of study: Hannah C Yahui and Narasimman Swaminathan.

Data acquisition: Hannah C Yahui.

Data analysis and/or interpretation: Hannah C Yahui and Narasimman Swaminathan.

Drafting the manuscript: Narasimman Swaminathan and Hannah C Yahui.

Revising the manuscript critically for important intellectual content: Narasimman Swaminathan.

Approval of the version of the manuscript to be published: Narasimman Swaminathan and Hannah C Yahui.

Acknowledgments

The authors would like to acknowledge Mr Gary Husler, English Lecturer, Center for Language and Arts, INTI International University for his language editing.

Appendix

Study on the Knowledge, Attitudes and Barriers towards Evidence-based Practice among Physiotherapists in Malaysia.

Evidence-based Practice (EBP) is the use of current best evidence in making decisions about individual patient care. The purpose of this survey is to study the knowledge and attitudes of physiotherapists members of the Malaysian Physiotherapy Association (MPA) towards EBP and their perceived barriers towards its implementation.

Procedure

If you agree to participate in this study, kindly fill up the following survey. The whole procedure will take around 15 minutes.

Part 1 — Personal Data

1. Gender
   - ☐ Male
   - ☐ Female
2. Age
   - ☐ 25—34 years
   - ☐ 35—44 years
   - ☐ 45—54 years
   - ☐ 55 years and above
3. Highest qualification attained
   - ☐ Diploma certificate
   - ☐ Bachelor's degree
   - ☐ Master's degree
   - ☐ Doctoral degree
4. I specialize in a specific field in physiotherapy.
   - ☐ Yes
   - ☐ No

   If Yes, please indicate your field of specialization?
   - ☐ Musculoskeletal
   - ☐ Cardiorespiratory
   - ☐ Neurology
   - ☐ Pediatric
   - ☐ Sports
   - ☐ Others — Please state : _____

5. I have worked as a physiotherapist for _____ years.
   - ☐ 2–5
   - ☐ >5
   - ☐ >10
   - ☐ >15
   - ☐ >20
6. Please indicate your current area of practice
   - ☐ Government hospital
   - ☐ Health clinics (Klinik Kesihatan)
   - ☐ Private hospital
   - ☐ Private clinics
   - ☐ Home care
   - ☐ University
   - ☐ Own practice
7. Please indicate the state in which you practice
   Example: Johor
   _____
8. On average, I work _____ hours per week.
   - ☐ <20
   - ☐ 20–30
   - ☐ 30–40
   - ☐ >40
9. On average, I attend to _____ patients on a daily basis.
   - ☐ 1–5
   - ☐ 6–10
   - ☐ 11–15
   - ☐ >15
   - ☐ Do not see patients
10. There are currently _____ physiotherapists in my area of practice.
    - ☐ <5
    - ☐ 6–10
    - ☐ 11–15
    - ☐ >15
11. The majority of patients and types of problems I see on a daily basis are _____ cases.
    - ☐ Orthopaedic
    - ☐ Cardiorespiratory
    - ☐ Neurological
    - ☐ Pediatric (<18 years)
    - ☐ Geriatric (>65 years)
    - ☐ Sports
    - ☐ Others – Please state: _____
    - ☐ Do not treat patients
12. In a typical month, I…
    a. Read/Review research/literature related to my clinical practice
       - ☐ <1 article
       - ☐ 2–5 articles
       - ☐ 6–10 articles
       - ☐ 11–15 articles
       - ☐ >15 articles

    b. Use professional literature and research findings in the process of clinical decision making.
       - ☐ Never
       - ☐ Rarely
       - ☐ Sometimes
       - ☐ Often
       - ☐ Always
13. Please indicate the percentage of your total work time that you spend in each type of activity during a typical month.
    Example: Patient care – 70%; Research – 20%; Teaching – 10%
    - ☐ Patient care _____%
    - ☐ Research _____%
    - ☐ Teaching _____%

Part 2 – This section inquires about personal understanding, attitudes towards and perceived benefits and limitations of Evidence-based Practice.

14. I learned the foundations for EBP during my academic years.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
15. I received formal training in search strategies for finding research relevant to my practice.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
16. I am familiar with the medical search engines.
    Example: PubMed, PEDro
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
17. Please indicate the medical search engine(s) that you use.
    _____
18. I am able to conduct a search to answer my clinical questions confidently.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
19. I am confident in my ability to critically review professional literature.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
20. EBP is necessary in my daily physiotherapy practice.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
21. I am interested in using EBP in my daily practice.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
22. Evidence-based Practice helps me make decision about patient care.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree

23. Literature and research findings help improve patient care.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
24. I am interested in attending courses relating to EBP.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
25. Strong evidence is lacking to support most of the interventions I use with my patient.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
26. Evidence-based Practice is time-consuming and places burden on me.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
27. I have access to search engines in my place of work.
    - ☐ Agree
    - ☐ Disagree
28. My place of work supports the use of current research in practice.
    - ☐ Strongly disagree
    - ☐ Disagree
    - ☐ Agree
    - ☐ Strongly agree
29. I have access to search engines outside my place of work.
    - ☐ Agree
    - ☐ Disagree
30. Rank your barriers (from 1 to 6) to the use of evidence-based practice in your daily practice.
    Example: 1 — Greatest barrier; 6 — Weakest barrier
    - ____ Limited access to search engines
    - ____ Insufficient time
    - ____ Lack of interest
    - ____ Lack of support from colleagues
    - ____ Inability to apply research findings in my patient population
    - ____ Lack of research skills
31. Please indicate other barrier(s) to the use of Evidence-based Practice.
    _____

Thank you for participating in this survey.

References

[1] World Confederation for Physical Therapy. Policy statement: evidence-based practice. Available from: http://www.wcpt.org/sites/wcpt.org/files/files/PS_EBP_Sept2011.pdf

[2] Jette DU, Bacon K, Batty C, Carlson M, Ferland A, Hemingway RD, et al. Evidence-based practice: beliefs, attitudes, knowledge, and behaviours of physical therapists. Phys Ther 2003;83:786—805.

[3] Ramirez-Velez R, Correa-Bautista JE, Munoz-Rodriguez DI, Ramirez L, Gonzalez-Ruiz K, Dominguez-Sanchez MA, et al. Evidence-based practice: beliefs, attitudes, knowledge, and skills among Colombian physical therapists. Colombia Medica 2015;46:33—40.

[4] Lai NM, Teng CL, Lee ML. The place and barriers of evidence based practice: knowledge and perceptions of medical, nursing and allied health practitioners in Malaysia. BMC Res Notes 2010;3:279.

[5] Scurlock-Evans L, Upton P, Upton D. Evidence-based practice in physiotherapy: a systematic review of barriers, enablers and interventions. Physiotherapy 2014;100:208—19.

[6] da Silva TM, Costa Lda C, Garcia AN, Costa LO. What do physical therapists think about evidence-based practice? A systematic review. Man Ther 2015;20:388—401.

[7] Salbach N, Veinot P, Rappolt S, Bayley M, Burnett D, Judd M, et al. Physical therapists' experiences updating the clinical management of walking rehabilitation after stroke: a qualitative study. Phys Ther 2009;89:556—68.

[8] Hannes K, Staes F, Goedhuys J, Aertgeerts B. Obstacles to the implementation of evidence-based physiotherapy in practice: a focus group-based study in Belgium (Flanders). Physiother Theory Pract 2009;25:476—88.

[9] Iles R, Davidson M. Evidence based practice: a survey of physiotherapists' current practice. Physiother Res Int 2006;11:93—103.

[10] Dorsch JL, Aiyer MK, Meyer LE. Impact of an evidence-based medicine curriculum on medical students' attitudes and skills. J Med Lib Assoc 2004;92:397—406.

[11] Green ML, Ellis PJ. Impact of an evidence-based medicine curriculum based on adult learning theory. J Gen Intern Med 1997;12:742—50.

[12] Akinbo S, Odebiyi D, Okunola T, Aderoba O. Evidence-based practice: knowledge, attitudes and beliefs of physiotherapists in Nigeria. Internet J Med Informat 2008;4:1—8.

[13] Cup EH, Pieterse AJ, Ten Broek-Pastoor JM, Munneke M, van Engelen BG, Hendricks HT, et al. Exercise therapy and other types of physical therapy for patients with neuromuscular diseases: a systematic review. Arch Phys Med Rehabil 2007;88:1452—64.

[14] Al-Enezi L, May S. Why do physiotherapists do what they do? A survey of Kuwaiti physiotherapists. Physiother Res Int 2017. http://dx.doi.org/10.1002/pri.1640 [in press].

[15] Salbach NM, Guilcher SJ, Jaglal SB, Davis DA. Determinants of research use in clinical decision making among physical therapists providing services post-stroke: a cross-sectional study. Implement Sci 2010;5:77.

[16] Brown SR, Roush JR, Lamkin AR, Perrakis R, Kronenfeld MR. Evaluating the professional libraries of practicing physical therapists. J Med Lib Assoc 2007;95:64—9.

[17] Majid S, Foo S, Luyt B, Zhang X, Theng Y-L, Chang Y-K, et al. Adopting evidence-based practice in clinical decision making: nurses' perceptions, knowledge, and barriers. J Med Lib Assoc 2011;99:229—36.

[18] Shifaza F, Evans D, Bradley H. Nurses' perceptions of barriers and facilitators to implement EBP in the Maldives. Adv Nursing 2014;2014:698604.

[19] Khammarnia M, Mohammadi MH, Amani Z, Rezaeian S, Setoodehzadeh F. Barriers to implementation of evidence based practice in Zahedan teaching hospitals, Iran. Nursing Res Pract 2015;2015:357140.

[20] Ammouri AA, Raddaha AA, Dsouza P, Geethakrishnan R, Noronha JA, Obeidat AA, et al. Evidence-based practice: knowledge, attitudes, practice and perceived barriers among nurses in Oman. Sultan Qaboos Univ Med J 2014;14:e537—45.

[21] Zwolsman S, te Pas E, Hooft L, Waard MW, van Dijk N. Barriers to GPs' use of evidence-based medicine: a systematic review. Br J Gen Pract 2012;62:e511—21.

[22] Sadeghi-Bazargani H, Tabrizi JS, Azami-Aghdash S. Barriers to evidence-based medicine: a systematic review. J Eval Clin Pract 2014;20(6):793—802.

[23] Igo S. Physiotherapists' attitudes towards the process of evidence-based practice: the development, piloting and testing of a Likert scale. Greenwich: University of Greenwich MSc; 2000.