Original Article

Knowledge and use of Evidence-Based Practice among physical therapists, dieticians and nurses

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Objective: To determine physical therapists, dieticians and nurses self-reported practice and knowledge of evidence-based practice (EBP), to determine availability of resources for accessing information & related skills and to identify the barriers in implementation of EBP in everyday practice.

Methodology: This comparative cross sectional survey used convenience sampling technique. Physical therapists, dieticians and nurses working at different public & private institutes of Lahore 81 each) were included in the study. Data were collected using a translated questionnaire, which was made to survey health professionals and was found to be a consistent instrument.

Results: Physical therapists, dieticians and nurses had knowledge and understanding of EBP and they know the usage of research evidence for making clinical decisions. Literature survey and research findings were viewed useful in routine clinical practice. The mainstream showed having the requisite skills for evaluating and apprehending the evidence. Insufficient time was considered as a major barrier for the application of EBP. No significant differences were found among groups.

Conclusion: All three groups showed positive opinion and knowledge of EBP. Survey results can help health care trainers while designing EBP coaching syllabus. (Rawal Med J 202;45:493-496).

Keywords: Physical therapy, allied health professionals, nurses, evidence based practice, dieticians.

INTRODUCTION

Evidence based practice (EBP) is crucial for making clinical decisions in healthcare. Throughout the world, healthcare businesses comply with the codes of EBP when assessing and appraising the evidence for healthcare decision-making. A consumer-centered, evidence-based approach requires fundamental EBP talents and clinical literacy.[1] There are five steps of EBP process: formulating answerable queries, search related evidence, critical appraisal of evidence, decisions based on best available research findings and evaluation of outcomes. Though these steps seem simple but the fact is like other clinical skills, EBP skills are very complex and are difficult to interpret.[2]

EBP is not only well implemented in medicine but is also acquired by large range of other health professionals as well.[3,4] This is mainly because of its role in improving patient care and is also cost effective in routine practice. The studies conducted for assessing attitudes, self-reported knowledge and barriers about EBP are mostly qualitative and used survey method.[5] For achieving good clinical outcomes, professionals should incorporate research findings into practice. Most physical therapists (PTs) showed positive response towards EBP.[6,7]

Despite the evident advantages of EBP, its application within health care professionals has been sparse and unreliable in quality.[8] Various procedures exists for teaching and understanding EBP, as an example, by joining courses, symposiums or workshops. In 23 randomized controlled trials, outcomes have been chiefly decided by means of self-assessment.[9] The data on the knowledge and use of EBP among PTs, dieticians and nurses is limited.[10] Hence, it was necessary to conduct the study about the knowledge of EBP from physical therapists, dieticians & Nurses and to estimate its barriers.

METHODOLOGY

It was a cross sectional descriptive study performed after written consent from the respective institutes

and lasted for six months. Approval for the research was obtained from the research committee of University of Health Sciences and verbal consents was obtained from all participants.

The study population was PTs, dieticians and nurses working at various public & private institutes of Lahore. The sample size was estimated as 80 with the help of following formula.

$$n = \frac{Z^2_{1-\frac{\propto}{2}} P(1-P)}{d^2}$$

CI (1-α) = 95%, P = 70%, d = 10%, n = 81 (10)

The convenience sampling technique was used. PTs, dieticians and nurses of both genders were included in the study. Health care professionals other than PTs, dieticians and nurses and those with age greater than 35 years were excluded from the study. Dependent variable was respondents' knowledge scores. Independent variables were age, gender, work experience and EBP training. Respondents' knowledge about EBP, and their perception of barriers to use of EBP was described.

Data were collected using a translated questionnaire used by Jette et al, which was made to survey physical therapists and allied health professionals and was found to be a consistent instrument.[11] The original questionnaire comprised 31 items that captured information about: Information about EBP, Interest and inspiration to involve in EBP, Educational contextual and information and expertise related to retrieving and interpreting information, Obtainability and skill to access information, Access and usage of practice guidelines and Supposed barriers in using EBP.

Statistical Analysis: The data were analyzed in SPSS version 20. Chi Square was applied for comparison of percentages and frequencies $p<0.05$ was considered statistically significant.

RESULTS

Response to application of EBP is necessary in the practice were: PTs 17.3% agreed, dieticians 15.6% agreed, and nurses 15.6% agreed (Table 1). Difference was assessed between the variables of three groups. Chi – square test was applied (p=0.788). Response for Read literature linked to daily practice were: PTs 15.2% 2-5 articles/month, dieticians 11.5% 1 article/month and nurses 14.0% 2-5 articles/month (Table 2). Difference was assessed between the variables of three groups. Chi – square test was applied (p=0.997).

Table 1. EBP is necessary in practice.

EBP is necessary in practice	Groups			Total
	Physical Therapists	Dieticians	Nurses	
Strongly disagree	1	3	4	8
	.4%	1.2%	1.6%	3.3%
Disagree	0	1	0	1
	.0%	.4%	.0%	.4%
Neutral	10	8	11	29
	4.1%	3.3%	4.5%	11.9%
Agree	42	38	38	118
	17.3%	15.6%	15.6%	48.6%
Strongly agree	28	31	28	87
	11.5%	12.8%	11.5%	35.8%
Total	81	81	81	243
	33.3%	33.3%	33.3%	100.0%
p-value*	.788**			

Table 2. Read related literature.

Read related literature	Groups			Total
	Physical Therapists	Dieticians	Nurses	
1 article/month	24	28	26	78
	9.9%	11.5%	10.7%	32.1%
2-5 articles/month	37	34	34	105
	15.2%	14.0%	14.0%	43.2%
6-10 articles/month	12	11	12	35
	4.9%	4.5%	4.9%	14.4%
11-15 articles/month	2	3	2	7
	.8%	1.2%	.8%	2.9%
>16 articles/month	6	5	7	18
	2.5%	2.1%	2.9%	7.4%
Total	81	81	81	243
	33.3%	33.3%	33.3%	100.0%
P-value*	.997**			

Table 3. Use databases for literature search.

Use databases for literature search	Groups			Total
	Physical Therapists	Dieticians	Nurses	
1 time/month	28	33	30	91
	11.5%	13.6%	12.3%	37.4%
2-5 times/month	32	29	31	92
	13.2%	11.9%	12.8%	37.9%
6-10 times/month	11	10	11	32
	4.5%	4.1%	4.5%	13.2%
11-15 times/month	2	3	2	7
	.8%	1.2%	.8%	2.9%
>16 times/month	8	6	7	21
	3.3%	2.5%	2.9%	8.6%
Total	81	81	81	243
	33.3%	33.3%	33.3%	100.0%
P-value*	.997**			

Response for usage of databases to find practice-related literature were: PTs 11.5% 1 article/month, dieticians 13.6% 1 article/month and nurses 12.3% 1 article/month (Table 3). Difference was assessed between the variables of three groups. Chi – square test was applied (p=0.997).

DISCUSSION

The PTs, dieticians and nurses who were participants of the study had positive response towards EBP and the usage of research evidence for decision making in their clinical settings. EBP was perceived essential element of practice and according to them, literature search and research outcomes were beneficial in clinical settings. Similar findings have found in previous international studies on physical therapists, physicians and occupational therapists, employing the similar questionnaire.[12]

Hecht et al had found that physicians possessed a positive attitude regarding EBP but it was concluded that few actually used it in clinical environment.[1] Previous researchers highlighted the significance of considering individual approaches when desiring to increase the usage of evidence-based practice.[13] In the current study, a majority of the participants, irrespective of profession, had a positive approach to the usage of evidence-based clinical care.

The large number of participants showed having the essential skills for interpreting and understanding the research evidence. This has been happened because of increased concentration on training of these skills during professional education during the last few years. Previous studies that were conducted among physical therapists and occupational therapists revealed that they found difficulty in inferring results of researches and incorporating those findings in their practice.[13] Health care providers should enhance their concepts of research terms, so that they can apprehend and apply research results and evidence based clinical guidelines.

Insufficient time is one the greatest barriers in applying research findings in clinical environment.[14] Our study has showed similar findings among PTs, dieticians and nurses. Other common barriers among dieticians, nurses and PTs are difficulty in inferring research results, deficiency of clinical knowledge and diverse amount of scientific material. Silva et al found that subjects not only stated insufficient time as a major barrier for applying research in practice, but also manifested other complex barriers.[15] Education and coworkers are common means of information within clinical settings.[16] Physical therapists actively seek practice guidelines more than dieticians and nurses.

CONCLUSION

All three groups showed positive opinion and knowledge of EBP. Survey results can help health care trainers while designing EBP coaching syllabus as it is essential to modify teaching to fulfill the requirements of particular groups of learners to confirm that specific learning deficiencies are fulfilled.

Authors contribution:
Conception and design: Ameena Amjad
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Analysis and interpretation of the data: Abida Bashir
Drafting of the article: Amen Fatima
Critical revision of the article for important intellectual content: Ameena Amjad
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