

## ORIGINAL ARTICLE

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## FACTORS AFFECTING IMPLEMENTATION OF EVIDENCE BASED PRACTICE AMONG PHYSIOTHERAPISTS IN MOI TEACHING REFERRAL HOSPITAL, KENYA

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## ABSTRACT

**Background:** The application of the concept of Evidenced Based Practice into clinical decision-making and practice has outstanding benefits both to clinicians and the patient. However, the utilization of this concept has not been copiously utilized in most health facilities by the physiotherapists in Kenya. Therefore, the objectives for this study was to determine the level of awareness of evidence based practice among Physiotherapist, establish the availability of resource for Evidence Based Practice and to assess the challenges encountered by physiotherapist in engaging in evidence based practice at Moi Teaching and Referral Hospital.

**Method:** All physiotherapists working in Moi Teaching and Referral Hospital (42) took part in a cross-sectional descriptive survey. Questionnaires were used for data collection and analyzed by SPSS version 22.

**Results:** there was high level of awareness on Evidence Based Practice (95 %) and confidence in EBP (72.5 %). However, lack of information resources, poor skills to implement EBP, poor organization support 90%, insufficient authority to induct change in the practice setting 85%, inadequate facilities 74% and lack of time were identified as the major challenges in implementation of EBP

**Conclusion:** Strategies should be developed to provide PTs with EBP resources, such as access to databases or links to guidelines, and continuous education regarding specific topics. Professional organizations and Associations should aim at changing the current practice to ensure full utilization of EBP.

**Keyword:** Evidenced based practice, physiotherapy, patient, management, outcome, knowledge, challenges, implementation, resources, articles.

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## INTRODUCTION

Evidence-based practice (EBP) is a new shift to health care wherein healthcare providers use the best evidence possible, i.e. the most suitable evidence available, to make clinical decisions for specific patients [1]. EBP values, improves, and builds on clinical proficiency, understanding of disease mechanisms, and path physiology. It encompasses multifaceted and meticulous decision-making, centered not only on the existing evidence but also on patient individualities, circumstances, and partialities [2]. It's acknowledged that healthcare is personalized and dynamic. It involves doubts and possibilities. Ultimately EBP is the ratification of the health care practice that the best clinicians have applied for generations.

Evidence-based practice emphasizes insights, repetitive and unmethodical clinical experiences. It depends on past proficiencies or knowledge in addition to constant professional improvement courses, and has adequate grounds for clinical decision-making [3]. Likewise EBP accents on the use of the top high quality evidence from clinical research assimilated with clinical skill and patients' beliefs [4,5,6]. Evidence based practice can be used for four purposes, this includes; choice of standardized assessment tools, analysis of scores on assessment tools, selection of therapeutic, rehabilitative and promotive interventions[7].

The use of the model of EBP into clinical decision-making and practice has been re-counted to have potential benefits. The health professionals are able to keep up with the fast developing body of knowledge in healthcare and specialized knowledge. It likewise develops their proficiencies in testing answerable clinical questions in addition to finding; retrieving and critically appraising the best evidence to address these questions [8]. This stimulates self-directed learning to clinicians, therefore warranting constant professional development. Furthermore, evidence-based practice recognizes research areas and also advocates interacting amidst specialists. Finally, evidence-based practice can aid health care providers in making better use of limited resources to deliver effective treatment and services [9].

With implementation of EBP, the quality of patient care is noticeably improved [10]. In a similar study Laura [11] revealed that EBP result to improved and safer care, enhanced outcomes, and lesser health care costs. On the contrary, poor patients' management has the capacity to cause compounded social and financial effects on entities, families and societies [11,12]. These are caused by direct costs of treatment, opportunity costs of lost employment and the costs of informal care-provision within the family [11] (Sherlock, 2009). Poor patients' management results from outdated practices, which are not evidence based [13].

Evidence-based practice (EBP) is gaining momentum in the physiotherapy profession. However, we need to admit that even though the production of new knowledge on patients' care is advancing at an ever-increasing speed, the fraction of valuable new insights successively initiated into routine patient care is noticeably lower.

Kenya is a developing country, which has not fully embraced the use of evidenced based practice in physiotherapy. This affects the efficiency of patients' management hence poor outcome as earlier mentioned. It is important to gain understand of factors that affect the uptake of this newer model of clinical practice. Therefore this study aims to understand the factors affecting implementation of EBP amongst physiotherapists working in Moi Teaching and Referral Hospital (MTRH), in Kenya

## METHOD

### SETTING

The study was conducted at Moi Teaching and Referral Hospital (MTRH), Kenya. Moi Teaching and Referral Hospital (MTRH) is the Country's second largest referral hospital in Kenya, situated approximately 500 meters east of the city center of Uasin-gishu. Besides being the national referral hospital, MTRH also provides sixth level health care services. This hospital also acts as the principal training institution for health and allied disciplines. The hospital has a total bed capacity of 1000. The hospital provides services to residents of the western part of the Kenya, Uganda as well as Southern Sudan. The hospital has well-established departments of pediatrics, gynecology and obstetrics, surgery, orthopedics and internal medicine with well-structured casualty and an outpatient department. The researchers chose the hospital because it is a referral public hospital for Kenya with a multidisciplinary rehabilitation services.

### SAMPLE

The study population included forty-two physiotherapists working in MTRH as provided by the data on human resources in the facility. The purpose of the study was to find out factors affecting implementation of evidence based practice among physiotherapists. Census was used for sampling due to the small number of physiotherapist in the facility.

All physiotherapists were eligible for inclusion in the study. The sample included 40 physiotherapists. A questionnaire was used for data collection. Physiotherapists filled in the questionnaire on information regarding; the level of awareness of EBP, attitudes and beliefs in implementation of EBP, the application of EBP in clinical practice, and the perceived barriers towards the use of EBP amongst PTs in MTRH.

## RESULTS

A total of 40 physiotherapists participated in this survey, representing 95% response rate. The majority (57.5%) of the respondents were female and the mean age was 30.5 years (range 20 to 63 years). Participants had different levels of qualification in physiotherapy, ranging from diploma to masters level. The majority of the participants had diplomas (65 %), followed by higher diploma (15 %), degree 12.5%, while masters' qualification was the lowest (7.5%) (See table 1.0)

**Table 1.0:** Levels of education

Level of education	Frequency	Percent
Diploma	26	65 %
Higher Diploma	6	15%
Degree	5	12.5 %
Master	3	7.5 %

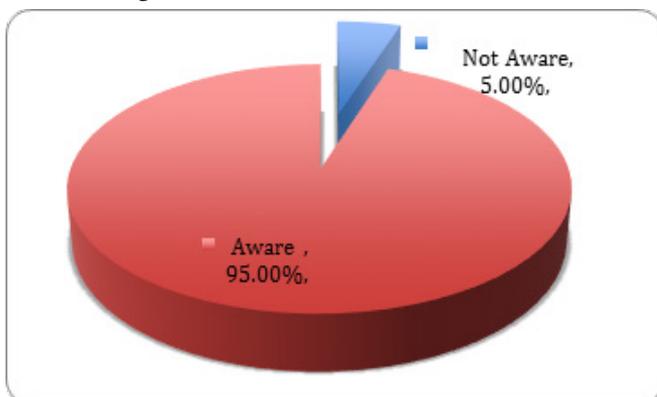
On average, they had been employed in the physiotherapy profession for 9 years (range 2 years to >40 years). Participants had a wide range of experience with 5% having worked for >40 years while 17.5% had worked for less than 5 years (see table 1.1)

**Table 1.1:** Descriptive statistics for work experience (n=40)

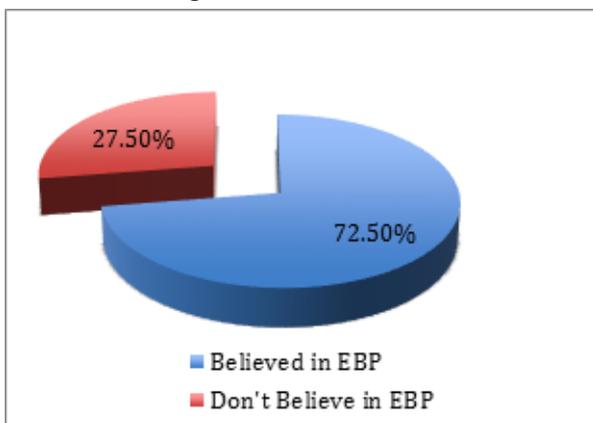
Years worked	Frequency	Percent
<5	7	17.5 %
5-10	10	25 %
11-20	8	20 %
21-30	9	22.5 %
31-40	4	10 %
>40	2	5 %

The participants had a high level of awareness on Evidence Based Practice (95 %) summarized in figure 1.0. Majority of the participants (72.5 %) believed in Evidenced based practice while 27.5 % did not believe in evidence-based practice as summarized in figure 1.1

**Figure 1.0:** Level of awareness (n=40)



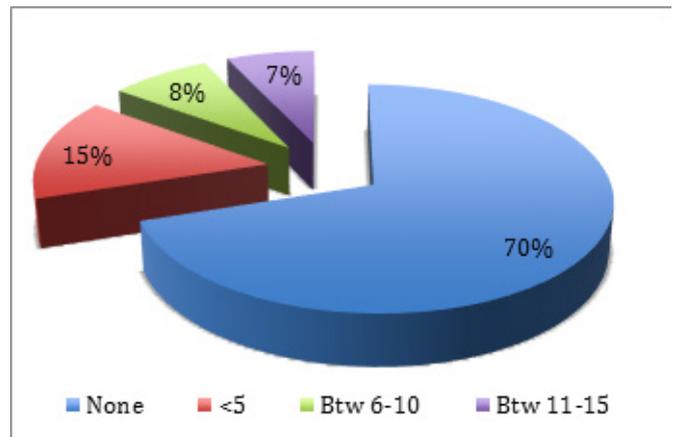
**Figure 1.1** Confidences



To understand how frequently physiotherapists search for information in their clinical practice, participants were asked how often they sought and read research articles. The

results shows that 70% of the participants did not read any article while 7 % read between 11-15 articles in a year as shown in figure 1.2.

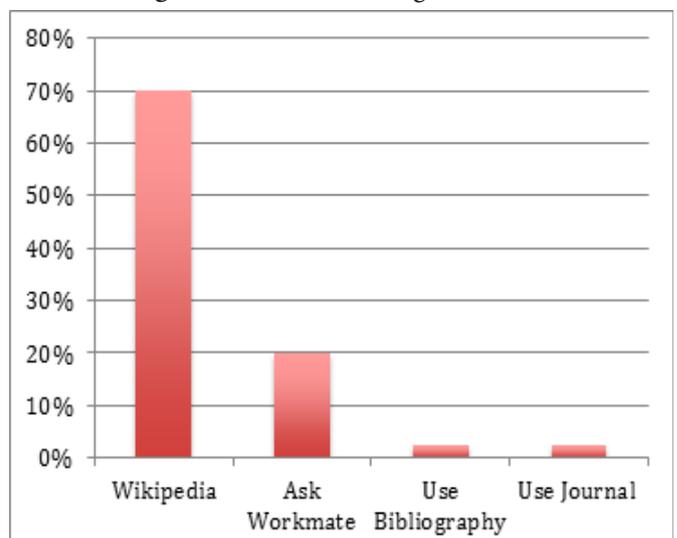
**Figure 1.2:** Number of articles read in a year (n=40)



The study also probed the research participants on accessibility to information and the type of search engines they used for access to research materials. It was noted that 55.0 % were not able to access information while 45 % were able to access information. 60% undertook a general internet search, 2.5% read journals, while 2.5% sought bibliographic databases for information. Figure 1.3

The study further tracked how frequently EBP was used in the participants' current clinical practice. 42.5% of the participants rarely applied it in physiotherapy management while 15 % apply EBP more often. The study additionally identified more barriers that were associated with application of evidenced based practice. 80% had inadequate time on the job to employ latest philosophies, 72 % reported lack of skills on implementation of outcomes of the research. Furthermore, 75% of the participants argued that pertinent literature was not assembled in one location. Insufficient influence to initiate change in the practice setting 90%, Inadequate facilities 85% to ease implementation of evidenced based practice as well as lack of support for implementing EBP from the facilities (74%). (Figure 1.4)

**Figure 1.3:** Research Engine (n=40)



**Figure 1.3: Barriers to (n=40)**



## DISCUSSION

Although there appears to be widespread support of evidence-based practice as a basis for rational management in healthcare, the challenges to its application are significant and often justified. These include a number of factors other than evidence driven clinical decision-making.

In this study, majority of participants were aged 30-39 and had worked in clinical practice between 6-10 years. This is a young generation, which is expected to be at par with the new research findings and hence apply evidenced based practice. This resonated with 95% and 72.5 % respectively that were aware of EBP and believed in it. This by implication indicated that majority of the participants, and particularly the young subjects were cognizant of the significance of EBP as a way of improving their clinical practice. These results are consistent with Heiwe [14]. In a similar study, Laura[1] pointed out that the time when one was educated is an important factor, in implementation of EBP "People educated 20 years ago didn't learn an EBP approach" and therefore have challenges embracing the concept.

However, in spite of these positive attributes, some clear deficits for not using research in guiding practice emerged. Data reveals significant barriers. Some of the reasons given for not using research to guide clinical decision-making were the same as in many other studies [15]. The study brought forth two categories of barriers, which included; personal impediments, and challenges from the facilities from where the physiotherapists were working.

Data showed that the participants had limited access to information resources. This was presented by 37.5% of the participants who read no article in a year, while 7.5 % read between 11-15 articles. Likewise, data revealed the quality of research material that were sort by the participants, only 2.5% utilized credible databases for access to scholarly materials. The results are consistent with the work of Herbert [16] in their study in Nigeria. The authors reported that the implementation of evidence-based practice to clinical decision-making and practice experiences signif-

icant challenges in resource inaccessibility. Similarly, Ajuwon [17] also found numerous challenges to augmented use of internet, including poor availability of broadband (fast connection speed) Internet access, lack of information searching skills, and cost of access.

Inadequate time on the job to realize new ideas was cited as a challenge affecting EBP, consistent with Ashford and Gosling [18,19]. This likewise resonated with Ramizer-Velez [2] in Colombia where inadequate time was shown to be a barrier to evidence being used in practice among physical therapists. A rationalization for insufficient time on the job in Kenya could be, most physiotherapist use out of date practices than evidence based, which might result in the increased workload [13]. However, it could also be due to poor time management. Additionally, shortage of staff could lead to increased workload and poor time management as illustrated by Naiker [20]. Since insufficient time was reported as a major barrier; henceforward, consideration needs to be given to ways of improving physiotherapists time management.

Other barriers often identified by our participants were lack of skills to apply research findings to practice, and the incapability to apply the research findings to specific patients. These obstacles are rather interrelated problems and emerge as difficulties to the use of evidence by many health professionals. This might be as a result of ineffectual understanding of the research findings. However, use of information systems that integrate evidence and guidelines with patient care in addition to effective continuous education for implementation of EBP for health care providers, should be used for mitigation, as suggested by Haynes[5].

The study further found that 27.5% of the respondents were not familiar with the term EBP. It is apparent that there were many factors for this, in addition to literature not being compiled in one place. These results are contrary to Gonzalez-suarez et al[13] who assert that engaging in evidence based practice means making rigorous efforts to find the answers to the clinical problems that frequently arise in the clinical practice. Jette [4] in a study, reported that 42% and 40% of the respondents respectively agreed and strongly agreed that they participate in numerous education sessions concerning the EBP activities such as a thorough literature search, use of various databases, understanding of research findings, and implementation of EBP. In a similar study, Kamwendo [21] reported that Swedish physiotherapists engage in EBP related activities that included reading of research literature and utilization of research findings in clinical practice. Likewise, Ashford and Gosling [18,19] assert that physiotherapists are unlikely to use the resources they are not assured they can utilize effectively.

The other major barriers to research use were found to be related to organizational factors. The main institutional challenge was, insufficient authority to initiate change in the practice setting (90%), inadequate resources (85%) to ease implementation of evidenced based practice as well

as lack of support for implementing (74%). A rationale for institutional challenges is due to the fact that, many of the physiotherapist in the authority were trained more than 20 years ago and are oblivious of the existence of the evidence based practice. As a result, they lack the knowledge and the goodwill to facilitate delivery of EBP in clinical practice [1]. Similarly, Kenya is a third world country with low per year expenditure on health per capita [22]. Often times a lot of emphasis and resources are put on the prevention and treatment of infectious diseases [23]. As a result, there is very little support from the relevant authorities on the rehabilitative aspect of patient management. Subsequently, very little resources, (human and financial) are allocated for the profession to facilitate delivery of evidenced based practice

## CONCLUSION

EBP is shifting the approach in which health care is undertaken. Clinicians are depending more on evidence in health care decision-making. This study therefore, highlights the challenges, which hinder the implementation of evidenced based practice among physiotherapists in MTRH. Our results show that most Kenyan Physiotherapists in the sample had a positive attitude about EBP. Therefore, plans should be established to support Physiotherapists concerning revolutions in their performance towards a more inclusive use of research in clinical work. The results are generalizable to other hospitals in Kenya having no research or academic mythology. In addition, Professional organizations have an important role to guarantee that EBP is realized in day-to-day practice. Associations should aim at offering physiotherapists continuous education regarding particular topics and offer EBP resources, such as access to databases or links to guidelines.

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