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Barriers and Facilitators to Evidence-Based Practice among Physiotherapists Practicing in Sub-Saharan Africa

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Abstract

Background: Evidence-based practice (EBP) is vital for high-quality patient care, yet its implementation among physiotherapists in sub-Saharan Africa (SSA) faces significant challenges. This scoping review explores the barriers and facilitators of EBP in this region. **Objectives:** To identify barriers and facilitators of EBP at individual, organisational, and extra organisational levels among physiotherapists in SSA. **Methods:** A comprehensive literature search was conducted across PubMed, Sabinet, BioMed Central, and Google Scholar. Seven studies from Ghana, Nigeria, Cameroon, Benin, Kenya, Zimbabwe and South Africa met the inclusion criteria. **Results:** Key barriers at the practitioner level included lack of time, insufficient knowledge of EBP, limited access to information resources, and inadequate research skills. Facilitators comprised positive attitudes toward EBP and a desire for further knowledge. At the organisational level, resource unavailability emerged as a major barrier. Notably, no studies addressed extra organisational factors. **Conclusion:** This review highlights critical barriers and facilitators of EBP among SSA physiotherapists and emphasises the need for further research on extra organisational influences. Addressing systemic challenges is essential for enhancing physiotherapist engagement in EBP, ultimately improving patient care and outcomes in sub-Saharan Africa.

Keywords

Evidence-Based Practice, Barriers, Facilitators, Physiotherapy, Physiotherapists, Sub-Saharan Africa

1. Introduction

1.1. Background

Physiotherapy contributes widely across the healthcare system [1] and plays a vital

role in managing noncommunicable diseases, such as cardiorespiratory and metabolic disorders [2], as well as the rehabilitation of neurological and musculoskeletal disorders. Physiotherapists also play major roles in community-based rehabilitation.

Definitions of evidence-based practice (EBP) have evolved over the years. Due to its widespread acceptance and application in clinical practice, the five-step system developed by Guyatt *et al.* (2002) [3] is considered a credible and foundational guide in the field of evidence-based practice. The five steps in this system include: 1) formulating a clear clinical question based on the patient's problem; 2) searching for the best available evidence to answer that question; 3) critically appraising the evidence for its validity and relevance; 4) integrating the evidence with clinical expertise and patient preferences to make informed decisions; and 5) evaluating the outcomes of those decisions and seeking ways to improve in the future. In 2016, Veras *et al.* [4] published an article proposing the definition of evidence-based practice to be "*an area of study*, *research*, *and practice in which clinical decisions are based on the best available evidence*, *integrating professional practice and expertise with ethical principles*." This definition aims to motivate critical thinking among physiotherapists and promote principles such as autonomy, beneficence, nonmaleficence, and justice. By integrating the best research evidence with their clinical expertise and patient preferences, clinicians can provide suitable and effective care through this process known as evidence-based practice [5].

There are 47 countries in sub-Saharan Africa (SSA) divided into four regions: Southern Africa, East Africa, Central Africa, and West Africa [6]. Sub-Saharan Africa faces a significant burden of disability and a growing need for rehabilitation services due to the increasing prevalence of noncommunicable diseases and injuries [7]. These countries also contend with a burden of infectious diseases. To address these challenges, academic institutions in sub-Saharan Africa need stronger research capacity to inform evidence-based practice. Despite the availability of various research facilitators both globally and within SSA, promoting EBP faces numerous challenges. While both sub-Saharan African and non-sub-Saharan African regions encounter barriers to EBP, the nature and impact of these factors are shaped by their distinct socioeconomic landscapes, organisational cultures and leadership support.

1.2. Objective

To identify key barriers to and facilitators of EBP at the practitioner, organisational and extra organisational levels among physiotherapists practising in sub-Saharan Africa.

To achieve this goal, the authors systematically reviewed the literature that investigated the factors influencing evidence-based practice at the practitioner, organisational and extra organisational levels in SSA.

1.3. Research Questions

The scoping review was guided by the following research questions:

1) What actual or perceived personal barriers do physiotherapists in sub-Saharan Africa encounter, that would hinder their ability to engage in research and implement evidence-based practice effectively?

2) What are the actual or perceived personal factors that would enable physiotherapists in sub-Saharan Africa to engage in research and implement evidence-based practices effectively?

3) What specific organisational and extra organisational barriers impede the ability of physiotherapists in sub-Saharan Africa to effectively engage in research initiatives and implement evidence-based practice within their practice environments?

4) What organisational and extra organisational facilitators enable physiotherapists in sub-Saharan Africa to engage in research and utilise evidence-based practices effectively?

Understanding these diverse influences is essential for developing tailored strategies that address specific barriers and leverage the facilitators inherent in each setting, ultimately enhancing the effectiveness of EBP implementation.

2. Methods

2.1. Study Design

A scoping review was undertaken to address the objectives of the study. A broad search using the Joanna Briggs Institute (JBI) Manual for Evidence Synthesis was utilised [8].

2.2. Search Strategy

The search strategy employed in this scoping review was designed to comprehensively identify barriers and facilitators to evidence-based practice among physiotherapists in SSA. The following outlines the step-by-step approach taken, detailing the specific search terms used, their alignment with database syntax and the rationale behind each step. The process involved three key stages:

1) Initial Database Search

An initial database search was conducted using the PEDro and Cochrane databases. We accessed the MeSH (Medical Subject Subheadings) database on PubMed and the key terms and free-text keywords included "Evidence-based practice", "Research", "Physiotherapy", "Barriers", "Facilitators", "Enablers", "Sub-Saharan Africa" and "Africa". We reviewed the suggestions provided within the MeSH database to refine our search strategy.

We utilised the simple and advanced search features to establish extensive search criteria. The following Boolean operators were applied:

- **AND**: Ensured that all specified terms were present in the results (e.g., "evidence-based practice AND physiotherapy").
- **OR**: Allowed for the inclusion of listed terms (e.g., "facilitators OR enablers").
- **NOT**: Excluded irrelevant topics from the results (e.g., ("evidence-based practice" AND "physiotherapy") NOT "nursing").

- **Wildcards**: Enhanced the breadth of the search (e.g., "facilit*" to encompass both "facilitators" and "facilitate").

The articles were then reviewed for additional MeSH terms that enhanced our understanding of barriers and facilitators in EBP among physiotherapists. During this stage, we were able to identify some common themes. Common barriers identified included lack of time and resources, as well as limited research skills. Facilitators noted included positive attitudes and beliefs.

2) Comprehensive Search in Additional Databases

Following the initial searches, all identified keywords and search terms were used to conduct a second search performed across multiple databases to ensure a broad capture of relevant literature. We searched PubMed, Sabinet and BioMed Central in full.

- **PubMed:** Searches were executed using a combination of MeSH terms and free-text keywords with the following syntax: ("barriers" [MeSH] OR "facilitators" [MeSH]) AND ("evidence-based practice" OR "research") AND "physiotherapy" AND ("Sub-Saharan Africa" OR "Africa").
- **Sabinet:** A similar approach was adopted. Specific keywords were aligned with Sabinet's search capabilities utilising Boolean operators and proximity searching to enhance the precision and comprehensiveness. This strategy ensured that the search effectively captured relevant studies, reflecting the unique context of physiotherapy practice in the African region.
- **Grey literature sources:** Recognising the importance of grey literature, we screened sources such as Google Scholar, BioMed Central, and other relevant websites. Given that these sources often have varying search functionalities, we adapted our search terms to include broader phrases such as "barriers and challenges", "facilitators and enablers", "evidence-based practice and research", "clinical practice guidelines", "knowledge translation", "research uptake", "research utilisation", "physiotherapy", "physical therapy", "physiotherapist", "physical therapist", "Sub-Saharan Africa", and "Africa".

3) Reference list screening

To further expand the scope of identified literature, reference lists of all retrieved articles were meticulously reviewed. This step aimed to uncover additional studies that may not have been captured in the initial database searches. Each reference was assessed for relevance based on inclusion criteria established prior to this review process.

2.3. Study Selection

- *Inclusion criteria:*
- Peer-reviewed articles published between 2014 and 2024
- Studies conducted within the sub-Saharan region of Africa
- Both perceived and actual barriers and facilitators
- Studies involving qualified and/or licensed physiotherapists
- Both primary and secondary studies that investigated barriers to and facilitators

affecting the implementation (including adoption, uptake, knowledge translation and research utilisation) of evidence-based techniques, clinical practice guidelines, ongoing education and training on EBP, treatment protocols or outcomes measures among physiotherapists in settings including clinics, hospitals and sports environments.

- *Exclusion criteria*:
- Case studies
- Conference abstracts
- Articles older than 10 years.

2.4. Data Extraction

Data extraction was guided by the Arksey and O'Malley framework and adhered to the PRISMA-ScR reporting guidelines to ensure comprehensive and transparent findings. The Arksey and O'Malley framework for extracting data includes 1) identifying the research question; 2) identifying relevant studies; 3) selecting studies; 4) charting the data; 5) collating, summarising and reporting results; and 6) consulting with stakeholders (optional) [9]. This framework was chosen for its systematic approach to scoping reviews, which aligns well with our objective of exploring barriers and facilitators to evidence-based practice among physiotherapists in sub-Saharan Africa.

- *Framework Development*:

After closely reading the sample of studies, we developed a pre-existing framework to identify key themes, which were organised into 3 categories: 1) practitioner factors, 2) organisational factors, and 3) extra organisational factors influencing the utilisation of evidence-based practice among physiotherapists practising in sub-Saharan Africa. The pre-existing framework provided in **Appendix 1** (details available in Table A1) was piloted prior to ensure its relevance and applicability across the selected studies.

- *Data Extraction Process*:

Table A2, a data extraction evidence table (**Appendix 2**) was designed to present evidence from the data search and the number of records retrieved from each search. Using an iterative process, data extraction was completed by two authors (LS, AM). The iterative process involved multiple rounds of extraction where initial findings were discussed and refined. This allowed for adjustments in the framework as new insights emerged from the data. To ensure reliability and consistency, any conflicts that arose during data extraction were resolved through discussion between the two authors. If a consensus could not be reached after thorough deliberation, a third author (DD) was consulted to provide an independent review of the conflicting items. This approach not only enhanced the reliability of our findings but also ensured that multiple perspectives were considered in the data extraction process.

- *Quality Assurance*:

The data extraction items were compiled into a structured form, allowing for

systematic collection of relevant information. Rigorous checks were implemented throughout this process to maintain consistency and accuracy in data handling. Each extracted item was cross-verified against original study findings to ensure fidelity in representation. Additionally, regular meetings were held among authors to discuss progress and address any emerging issues related to data interpretation or extraction methodology.

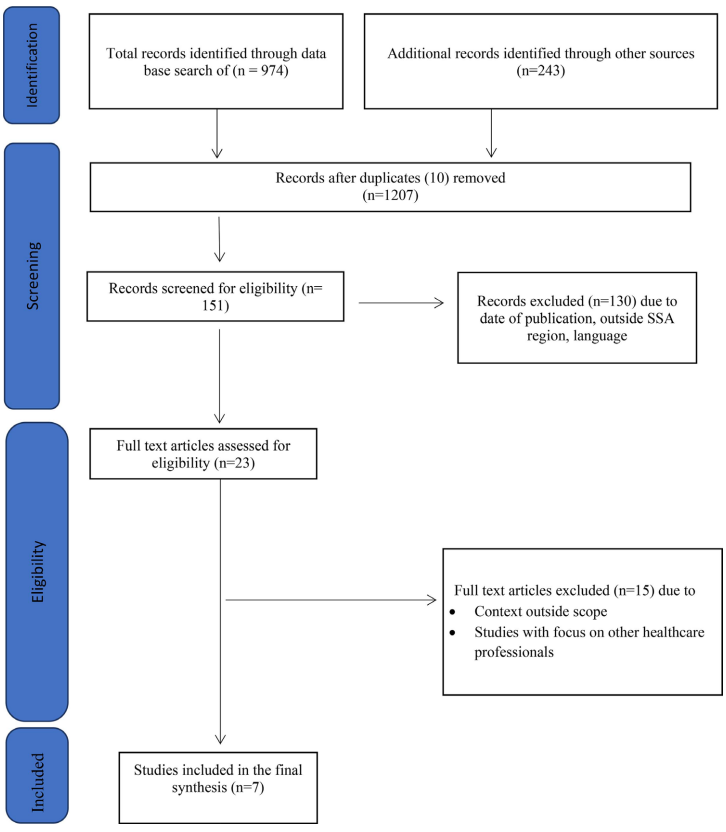
2.5. Hierarchy of Evidence

The included studies were categorised according to the National Health and Medical Research Council (NHMRC) hierarchy of evidence [10]. All studies included in this review were cross-sectional or utilised an exploratory, descriptive qualitative design, providing a comprehensive snapshot of the barriers and facilitators to evidence-based practice among physiotherapists in sub-Saharan Africa.

2.6. Quality Appraisal

The NHMRC hierarchy established a framework for evaluating potential bias within the included studies. This framework allowed for a systematic assessment of the quality of evidence, ensuring that the findings accurately reflect the current state of knowledge regarding barriers and facilitators in this context.

3. Results



Flowchart 1. PRISMA scoping review flow chart of included studies.

Flowchart 1 visually represents the systematic search and selection process undertaken in our review of barriers and facilitators to evidence-based practice among physiotherapists in sub-Saharan Africa. The initial search yielded 1217 studies from various databases, including PubMed, Sabinet, and BioMed Central (BMC), with repeated searches performed using slight alterations to the search terms to maximise the yield of relevant studies. After removing 10 duplicates, a total of 1207 records were screened for relevance. From these, 1056 records were excluded based on predefined criteria, leaving 151 records that were assessed for eligibility. Of these, 130 records were removed for not meeting the inclusion criteria, resulting in 23 full-text articles remaining for detailed analysis. Ultimately, after further scrutiny, 15 articles were excluded, leading to a final selection of 7 studies that were analysed in depth.

The 7 studies included in the final synthesis of this review comprised both qualitative and quantitative studies conducted across various regions of Africa, specifically west Africa, west-central Africa, east Africa and southern Africa. The settings of interest were predominantly sports or clinical/hospital settings. Graph 5 presents a broad comparison of barriers and facilitators to the implementation of evidence-based practice (EBP) among physiotherapists in sub-Saharan Africa across three levels: practitioner, organisational, and systemic. The following findings highlight the multifaceted nature of the factors that influence the adoption and implementation of evidence-based practices among physiotherapists in sub-Saharan Africa and Table 1 provides a detailed overview of the characteristics of the included studies.

3.1. Practitioner Level

3.1.1. Barriers

As shown in Graph 1, several barriers to EBP have been identified across multiple studies. A significant challenge reported by all 7 studies was the lack of time to engage in research activities [11]-[17]. The study by Ibikunle *et al.* (2021) [12] primarily investigates perceived barriers to evidence-based practice (EBP) among physiotherapists in Nigeria, as it gathers data through a questionnaire that reflects participants' subjective beliefs regarding the challenges they face in implementing EBP. Despite this focus on perceptions, the study remains relevant for inclusion among those investigating actual barriers because perceived obstacles often influence practitioners' engagement with EBP, regardless of whether these barriers are objectively present. The identified barrier, such as insufficient time, lack of resources, and inadequate training, are commonly reported in studies examining actual barriers across various contexts, suggesting that perceptions may mirror underlying systemic issues. By juxtaposing perceived and actual barriers, researchers can gain a more comprehensive understanding of the challenges faced by physiotherapists, ultimately aiding in the development of effective strategies to promote evidence-based care across sub-Saharan Africa. Heavy workloads and not being freely available were reported by Muntessu *et al.* (2024) [13] and Sawadogo *et al.* (2024) [14] respectively, which can leave physiotherapists with insufficient

opportunities to conduct research and apply evidence-based interventions. Additionally, five out of seven studies highlighted insufficient knowledge and understanding as barriers, particularly with respect to inadequate statistical skills and limited research capabilities [11]-[13] [15] [16]. Restricted access to information resources was also a common issue, with Ibikunle *et al.* (2021) [12], Muntessu *et al.* (2024) [13] and Tadyanemhandu *et al.* (2016) [15] indicating that the limited availability of information resources hinders practitioners' ability to stay informed. A lack of access to computers was reported by Muntessu *et al.* (2024) [13]. Studies by Ibikunle *et al.* (2021) [12] and Mwololo *et al.* (2021) [16] indicated a poor ability to critically appraise literature, which affected practitioners' capacity to evaluate the quality and applicability of research findings. Insufficient formal training on EBP was identified as a barrier by Muntessu *et al.* (2024) [13] and Tadyanemhandu *et al.* (2016) [15]. Other barriers, including the non-sensitivity of measures to cultural and ethnic concerns reported by Sawadogo *et al.* (2024) [14], as well as the inability to apply research findings to individual patient characteristics and the lack of generalisability of literature findings to specific populations, were noted by Mwololo *et al.* (2021) [16]. There was a lack of interest in and poor knowledge of EBP reported by Quartey & Kwakye (2018) [11], Muntessu *et al.* (2024) [13] and Mwololo *et al.* (2021) [16]. The study by Stander *et al.* (2020) [17] yielded practitioner barriers to the uptake of clinical practice guidelines including low confidence in utilising clinical practice guidelines (CPGs), negative attitudes towards their effectiveness, and a perception that the use of CPGs impede critical decision-making. Many physiotherapists in this study also reported insufficient time due to high workloads and staff shortages, which limits their ability to integrate CPGs into daily practice. Additionally, the cumbersome process of accessing relevant CPGs further exacerbates these challenges, while inadequate financial remuneration discourages their adoption.

3.1.2. Facilitators

Conversely, several facilitators of EBP at the practitioner level have also been identified. **Graph 2** summarises the number of studies that identified specific facilitators faced by physiotherapists at this level. Out of the seven studies, six reported that positive attitudes towards EBP were prevalent among physiotherapists [11]-[13] [15]-[17]. Additionally, Quartey & Kwakye (2018) [11] and Ibikunle *et al.* (2021) [12] demonstrated that awareness of one's role in EBP and a desire to acquire more knowledge were significant enablers. The attainment of higher degrees and greater years of work experience in the field were also noted as facilitators in these same two studies [11] [12]. Membership in professional associations, participation in research and teaching, and reading of journals were reported as facilitators by Ibikunle *et al.* (2021) [12]and Tadyanemhandu *et al.* (2016) [15]. Furthermore, having learned the foundations of EBP was identified as a facilitator in two out of seven studies [11] [15]. A study by Quartey & Kwakye (2018) [11] revealed that formal training in search strategies and critical appraisal was an enabler and another study by Ibikunle *et al.* (2021) [12] reported formal training on

EBP and having confidence in implementing EBP as facilitators. The two studies also indicated that increased education on EBP is beneficial, and so is having fewer workloads [11] [12]. Muntessu *et al.* (2024) [13] identified having fairly good knowledge of research terminologies as a facilitator. Other facilitators included the recognition of the importance of EBP tools such as outcome measures and the ease of their use, both of which contribute to the successful implementation of EBP in physiotherapy [14]. Stander *et al.* (2020) [17] identified unique facilitators for the adoption of EBP through the use of CPGs. They noted that support through mentorship or coaching plays a significant role in this process. Additionally, financial and professional incentives were found to motivate engagement with CPGs, while digital formats enhance their user-friendliness. The presence of a guideline champion within healthcare teams further promotes an environment conducive to the collaborative use of CPGs, emphasising the importance of teamwork in implementing these guidelines.

3.2. Organisational Level

3.2.1. Barriers

At the organisational level, barriers to the implementation of evidence-based practice (EBP) were also identified, as summarised in **Graph 3**. Six out of seven studies reported the unavailability of resources such as funding for research activities or conferences/workshops, lack of access to relevant databases and information resources, lack of resource persons and lack of access to EBP tools such as outcome measures as significant challenges that hindered EBP adoption [11]-[13] [14]-[16]. In addition, Ibikunle *et al.* (2021) [12], Sawadogo *et al.* (2024) [14] and Mwololo *et al.* (2021) [16] noted a lack of support from the organisation and from colleagues within the facility. The absence of an organisational mandate for EBP was highlighted by Quartey & Kwakye (2018) [11] and Ibikunle *et al.* (2021) [12]. Quartey & Kwakye (2018) [11] also reported that there was not enough time allocated to research activities. Stander *et al.* (2020) [17] revealed organisational barriers such as a professional culture that may resist change, insufficient stakeholder buy-in, and hierarchical structures within healthcare settings. In addition, they reported poor communicative skills, bureaucratic red tape and indicated that patient-centred care can slow down the implementation process.

3.2.2. Facilitators

On the other hand, one facilitator at the organisational level included observing enhancements in service delivery resulting from the application of EBP. **Graph 4** summarises the number of studies that reported specific organisational facilitators that support physiotherapists in sub-Saharan Africa. This study by Sawadogo *et al.* (2024) [14] also indicated that mandatory implementation of EBP tools within organisations facilitated its integration into clinical practice. Collective support from colleagues and managers was a facilitator identified by Muntessu *et al.* (2024) [13] and Stander *et al.* (2020) [17]. Stander *et al.* (2020) [17] revealed several facilitators which can enhance the uptake of clinical practice guidelines among

physiotherapists. The authors indicated active stakeholder buy-in as a facilitator. Furthermore, a collaborative nature among team members was a facilitator to CPG uptake, and so were effective communicative skills. In as much as they reported patient-centred care to be a barrier, they found that emphasising patient-centred care was also a facilitator as it aligns well with the principles of many CPGs.

3.3. Extra Organisational Level

Notably, the findings related to barriers and facilitators were reported exclusively at the practitioner and organisational levels. There were no corresponding facilitators or barriers at the extra organisational level identified in any of the 7 studies included in this paper.

Table 1. Characteristics of included studies.

AUTHOR (YEAR) TITLE OF STUDY; COUNTRY	SOURCE	FINDINGS		
		Practitioner Level	**Organisational Level**	**Extra organisational level**
			Barriers	
		• Inability to understand statistics • Lack of interest • Insufficient time	• Inadequate access to relevant databases and current research • Lack of availability of resource person • Not enough time allotted for research activities • Lack of organisational mandate • Lack of financial support	• Not identified
			Facilitators	
Quartey & Kwakye (2018) Barriers to evidence-based physiotherapy practice for stroke survivors in Ghana; Ghana [11]	PubMed	• Positive attitude • Learned foundations for EBP • Received formal training in search strategies and critical appraisal • Awareness regarding role in EBP • Interest in acquiring more knowledge • Having more education on EBP • Having higher degrees in the field • More years of work experience • Having fewer workloads	• Not identified	• Not identified

Continued

Ibikunle *et al.*, (2021) Perceived barriers to evidence-based practice in stroke management among physiotherapists in a developing country; Nigeria [12]	PubMed	**Barriers** • Insufficient time • Poor ability to critically appraise literature • Lack of research skills • Lack of information resources	• Lack of organisational mandate • Insufficient information resources • Lack of support • Lack of resources to promote EBP	• Not identified
		Facilitators • Positive attitudes and beliefs • Confidence in ability to implement EBP • Received formal training about EBP • Awareness of own role in EBP • Interest in acquiring and improving skills • Higher academic degrees • More education on EBP • Less daily work • More years of experience in the field • Participation in research and teaching • Belonging to a professional association	• Not identified	• Not identified
Muntessu *et al.*, (2024) Assessment of Evidence-Based Practice (EBP) among physiotherapists in Cameroon: a cross-sectional survey; Cameroon [13]	PubMed	**Barriers** • No training on and/or poor knowledge of EBP • Lack of time • Increased workload • Lack of access to information • Lack of research skills • Difficulty accessing computers	• Lack of resources	• Not identified
		Facilitators • Positive attitude towards improving knowledge of EBP • Fairly good knowledge of research terminologies	• Collective support from colleagues • Support from managers	• Not identified

Continued

		Barriers		
Stander *et al.*, (2020) Factors influencing clinical practice guideline uptake by South African physiotherapists: A qualitative investigation of barriers and facilitators; South Africa [17]	PubMed	• Low confidence • Negative attitude (belief that use of CPGs impedes critical decision making/some CPGs are not tailored to local contexts, time consuming) • Insufficient time • Staff shortages • High workloads • Ease of accessing CPGs (increased workload of an already busy workload) • Lack of remuneration	• Professional culture • Stakeholder by-in • Hierarchy in healthcare • Patient-centred care • Communicative skills • Red tape phenomenon • Lack of peer and leadership support	• Not identified
		Facilitators		
		• Knowledge about CPG use • Ease of accessing CPGs (resources readily available) • Positive attitudes and beliefs • Mentorship/Coaching • Incentives • Digital versions of CPGs • Teamwork • Guideline champion	• Support • Professional culture • Stakeholder by-in • Distribution of responsibilities • Patient-centred care • Collaborative nature • Communicative skills	• Not identified
		Barriers		
Sawadogo *et al.*, (2024) Use of standardised outcome measures among physiotherapists in French-speaking sub-Saharan Africa; Benin [14]	Sabinet	• Lack of time • Non-sensitivity of measures to patients' cultural and ethnic concerns • Not freely available	• Unavailability of resources (outcome measures) • Lack of administrative support	• Not identified
		Facilitators		
		• Recognition that outcome measures help determine effectiveness of treatment • Ease of use of outcome measures • Aware of benefits of using outcome measures	• Improvements in service delivery due to measurable outcomes • Mandatory use of outcome measures	• Not identified

Continued

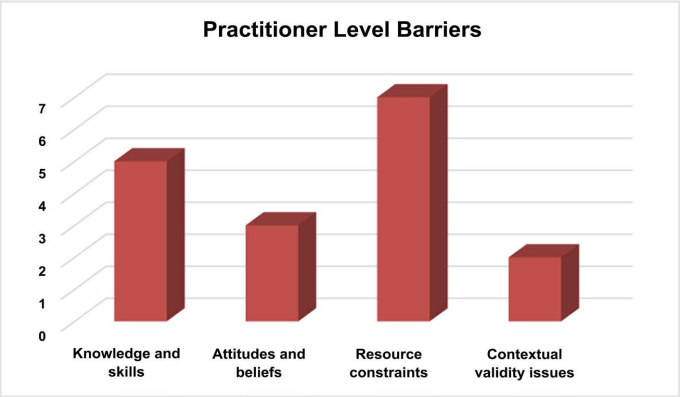
		Barriers		
Tadyanemhandu *et al.*, (2016) Utilisation of research evidence in clinical practice to improve health care delivery-practices, attitudes and challenges faced by physiotherapists in Zimbabwe: a descriptive cross-sectional study; Zimbabwe [15]	BMC	• Lack of time • No training on EBP • Lack of skills in searching for evidence • Limited access to online information	• Insufficient financial support (funding for internet services, conferences/workshops, funding for pursuing higher degrees)	• Not identified
		Facilitators		
		• Positive attitude • Knowledge obtained through undergraduate (UG) training • Reading of journals • Carrying out research	• Not identified	• Not identified
		Barriers		
Mwololo *et al.*, (2021) Attitudes, perceptions and barriers around evidence-based practice in sports physiotherapy in Kenya; Kenya [16]	Sabinet	• Insufficient time • Lack of generalisability of literature findings to patient population • Inability to apply research findings to individual patient characteristics • Limited ability to critically appraise the literature • Lack of understanding of statistical analysis • Lack of interest	• Lack of information resources • Lack of support among colleagues in the facility	• Not identified
		Facilitators		
		• Positive attitude	• Not identified	• Not identified

This table presents a comprehensive overview of the seven studies included in our review, focusing on barriers and facilitators to evidence-based practice among physiotherapists in sub-Saharan Africa. Each row details key characteristics of the studies, including:

- **Author(s):** The names of the researchers who conducted each study.
- **Country of Study:** The geographical location where the research was conducted, providing context on regional variations in evidence-based practice.
- **Source (Database):** The database from which each study was retrieved, ensuring transparency regarding the literature search process.
- **Findings:** A summary of identified barriers and facilitators categorised at the practitioner, organisational and extra organisational levels.

We combined similar items into overarching categories to enhance clarity and

coherence in the findings. For example, "ease of use of outcomes measures" and "knowledge of use of CPGs" were combined as one and placed under the "knowledge" section of practitioner facilitators, while items like 'belief that use of CPGs impedes critical decision" and "ease of accessing CPGs increases the workload of an already busy schedule" were combined to represent "negative attitudes" towards the implementation of EBP (Graphs 1-4).



Graph 1. Practitioner level barriers.

Practitioner Level Barriers: This graph summarises the number of studies reporting various barriers to EBP among physiotherapists in SSA. Out of a total of 7 studies, the following barriers were identified: Knowledge and skills were reported in 5 studies (71%), attitudes and beliefs in 3 studies (43%), resource constraints in all 7 studies (100%), and contextual validity issues in 2 studies (29%).

Practitioner Level Barriers:

1) Knowledge and skills

- No formal training on EBP [13] [15]
- Poor knowledge of EBP [13]
- Inability to understand statistics [11] [16]
- Poor ability to critically appraise literature [12] [16]
- Lack of research skills [12] [13] [15]

2) Attitudes and beliefs

- Lack of interest [11] [16]
- Low confidence [17]
- Negative attitude [17]

3) Resource constraints

- Insufficient time [11]-[17]
- Lack of information resources such as the internet [12] [13] [15] [17]
- Increased workload/Staff shortages [13] [14] [17]
- Lack of access to devices such as computers [13]
- Lack of remuneration [17]

4) Contextual validity issues

- Lack of generalisability of literature findings to patient population [16]

- Inability to apply research findings to individual patient characteristics [16]
- Non-sensitivity of measures to patients' cultural and ethnic concerns [14]

Graph 2. Practitioner level facilitators.

Practitioner Level Facilitators: This graph presents the number of studies reporting various facilitators to EBP among practitioners. Out of a total of 7 studies, the following facilitators were identified: Knowledge-based factors were reported in 5 studies (71%), attitudes and beliefs in 6 studies (86%), professional development factors in 4 studies (57%), and outcome measure awareness and accessibility in 2 studies (29%).

Practitioner Level Facilitators:

1) Knowledge

- Learned foundations for EBP [11] [15]
- Formal training in research/EBP [11] [12]
- Having more education on EBP [11] [12]
- Higher academic degrees [11] [12]
- Fair knowledge of research terminologies [13]
- Knowledge about CPG use [17]

2) Attitudes and beliefs

- Positive attitudes [11]-[13] [15]-[17]
- Interest in obtaining more knowledge [11] [12]
- Confidence in implementing EBP [12]
- Awareness of own role in EBP [11] [12]

3) Professional development factors

- More years of work experience [11] [12]
- Fewer daily workloads [11] [12]
- Belonging to a professional association [12]
- Participation in research and teaching [12]
- Reading of journals and carrying out research [15]
- Mentorship/coaching; Incentives; Digital version of CPGs; Teamwork; Guideline champion [17]

4) Outcome measure awareness/access

- Recognition of benefits of outcome measures [14]

- Ease of use of outcome measures [14]
- Ease of access to CPGs [17]

Graph 3. Organisational level barriers.

Organisational Level Barriers: This graph summarises the number of studies reporting various barriers to Evidence-Based Practice (EBP) at the organisational level. Out of a total of 7 studies, the following barriers were identified: Resource-related factors were reported in 6 studies (86%) and organisational culture and leadership factors in 5 studies (71%).

Organisational Level Barriers:

1) Resources

- Inadequate access to relevant databases or current research [11]
- Lack of resource persons [11]
- Lack of time [11]
- Lack of information resources [12] [16]
- Lack of resources to promote EBP [12] [14]
- Lack of resources of an unknown nature [13]
- Lack of financial support [11] [15]

2) Organisational culture and leadership

- Lack of organisational mandate [11] [12]
- Lack of support (leadership/peer) [12] [14] [16] [17]
- Professional culture; Stakeholder by-in; Hierarchy in healthcare; Patient-centred care; Communication skills; Red tape phenomenon [17]

Graph 4. Organisational level facilitators.

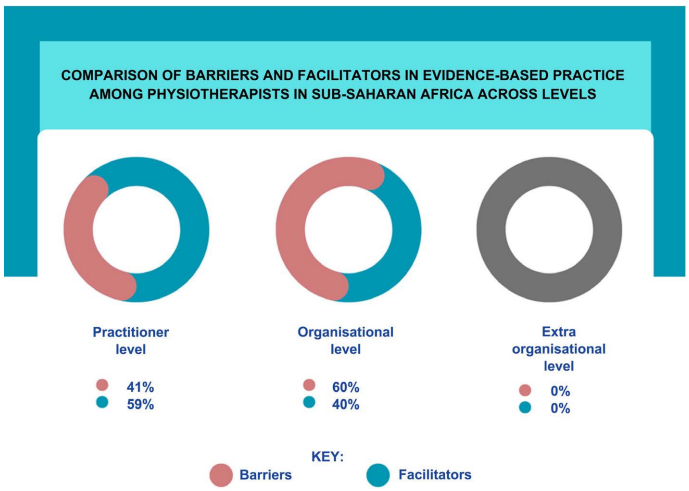
Organisational Level Facilitators: This graph summarises the number of studies reporting various facilitators to EBP at the organisational level. Out of a total of 7 studies, organisational culture and leadership factors were reported in 2 studies (29%), and support factors were reported in 2 studies (29%).

1) Organisational culture and leadership

- Professional culture; Stakeholder by-in; Distribution of responsibilities; Patient-centred care; Collaborative nature; Communication skills [17]
- Improved service delivery [14]
- Mandatory use of outcome measures [14]

2) Support

- Collaborative support (managers and colleagues) [13]
- Organisational support [17]



Graph 5. Comparison of Barriers and Facilitators in EBP among Physiotherapists in SSA across the 3 levels.

The graphs show Comparisons of Barriers and Facilitators in Evidence-Based Practice Across Levels.

In the comparison of practitioner-level barriers and facilitators to Evidence Based Practice (EBP), approximately 16 barriers were identified, accounting for approximately 41% of the factors analysed. In contrast, there were 23 facilitators, representing about 59% of the total factors.

In the comparison of organisational-level barriers and facilitators to EBP, a total of 15 barriers were identified, accounting for approximately 60% of the factors analysed. These barriers include issues related to resources and organisational culture and leadership. In contrast, there were 10 facilitators identified, representing about 40% of the total factors. Notably, no extra organisational factors were reported in any of the studies we included in this analysis.

This categorisation allowed us to calculate overall percentages for barriers and facilitators more effectively. By summing the items within each category, we derived a total count for barriers and facilitators, which enabled us to calculate their

respective percentages relative to the total number of identified factors (Graph 5).

Figure 1 is a map that depicts the seven countries included in this review, representing a subset of the 47 countries in sub-Saharan Africa. Each country is marked by its national flag to indicate its geographical location within the continent. The included countries are Ghana, Benin, Nigeria, Cameroon, Kenya, Zimbabwe and South Africa. This visual representation serves to contextualise the findings discussed in the paper, illustrating the varying challenges and opportunities faced by

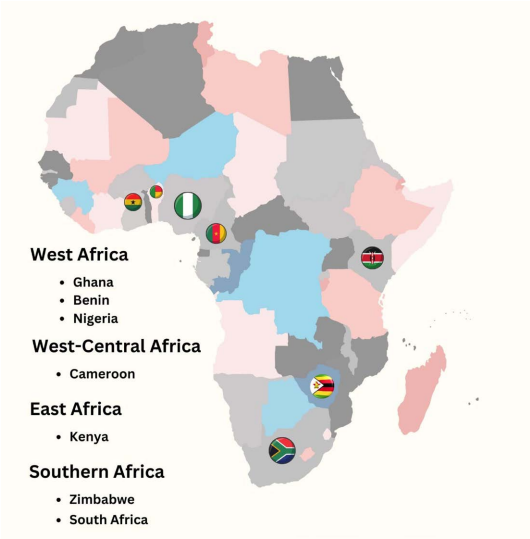


Figure 1. SSA countries where the studies in this review were conducted. Disclaimer: This image incorporates one purchased element from Canva, designed by R-Designs Criativos from Ruan Designs Criativos, combined with other graphic elements that were free for commercial or personal use. The purchased element (Zimbabwean flag button) is used under a licence agreement. All other elements were obtained for free from sources that permit commercial use. This image is not to be extracted, reproduced or used separately from this research paper.

physiotherapists across different regions of sub-Saharan Africa. In summary, common barriers to EBP identified in the studies conducted in Kenya, Nigeria, and Ghana included a lack of ability to conduct research, apply findings, or understand statistics. Facilitators noted in Nigeria and Ghana included higher education levels, more years of work experience, and additional education on evidence-based practice (EBP).

In Cameroon and Zimbabwe, similar facilitators were reported, such as positive attitudes towards EBP and knowledge of research methodologies. However, both countries also faced barriers like insufficient time and lack of training in EBP. Notably, Benin presented unique findings, highlighting the non-sensitivity of measures to patients' cultural and ethnic characteristics as a barrier, while also reporting positive outcomes from the use of outcome measures in practice as organisational facilitators. In South Africa, some unique facilitators also stood out, including availability of incentives, technology and pocket cards/light versions of CPGs and

guideline champions. The South African study also indicated that some factors can pose as both barriers and facilitators. In this study, these factors were stakeholder by-in, ease of accessing CPGs, professional culture, patient-centred care. The study also reported the presence of both positive and negative attitudes.

Overall, all studies consistently reported lack of time and inadequate resources as significant barriers. Additionally, Cameroon identified organisational support as a facilitator, while no extra organisational facilitators or barriers were reported (or investigated) across any of the studies.

4. Discussion

This scoping review aimed to explore the barriers to and facilitators of EBP among physiotherapists in SSA, utilising findings from 7 relevant studies. The results highlight key facilitators and provide critical insights into the challenges faced by practitioners and organisations in this region while also identifying gaps in the literature regarding extra organisational barriers and facilitators. According to the authors, there is currently no known study that has explicitly explores extra organisational barriers to and facilitators of EBP in physiotherapy within sub-Saharan Africa. Importantly, only a subset of the included studies explicitly investigated facilitators. In many cases, several of the facilitators mentioned in our findings were referenced in passing within the context of discussions focused primarily on barriers. This suggests that while some studies acknowledge the presence of facilitators, they do not delve deeply into their exploration, indicating a need for more comprehensive research that specifically targets the facilitators of EBP alongside the barriers faced by practitioners. A facilitator in the context of EBP is generally defined as a factor that aids the implementation of EBP.

4.1. Barriers

The implementation of Evidence-Based Practice (EBP) among physiotherapists in Sub-Saharan Africa (SSA) is influenced by a complex array of barriers that vary across different contexts, significantly impeding its adoption. Studies included in this paper highlight that limited time and restricted access to resources are critical factors that hinder physiotherapists' ability to engage with research and integrate evidence into clinical practice. The time constraint not only limits physiotherapists' capacity to stay updated with current research but also affects their application of evidence-based methods, a challenge noted in various studies beyond Sub-Saharan Africa [5] [18]-[21], as well as across multiple healthcare disciplines [22]-[27]. Furthermore, research indicates that the issue of "lack of time" often encompasses deeper underlying problems, such as insufficient emphasis on learning EBP principles and a reluctance to modify clinical practices or adopt new evidence [28] [29]. Paci *et al.* (2021) assert that time should ideally be considered a barrier only when practitioners possess the requisite skills and have access to research resources; however, this is frequently not the case in practice. [29]. At the practitioner level, the challenge of managing time is often exacerbated by additional

factors such as increased workloads, staffing shortages, and competing responsibilities, which limit opportunities for professional development. Recent research conducted in Bahir Dar in Ethiopia emphasises the critical importance of time management in healthcare settings. The study advocates for the implementation of strategies aimed at enhancing time management skills, including training on effective planning, minimising time-wasting activities, and identifying common habits that contribute to inefficiency, such as procrastination and excessive use of social media. These strategies are essential for mitigating workplace challenges and improving overall productivity [30]. The barrier of limited resources significantly impacts the implementation of EBP among healthcare practitioners. Scurlock-Evans *et al.* (2014) identified a limited number of investigations focused on the effectiveness of interventions designed to enhance EBP in healthcare settings. These interventions included a psychosocial management approach that utilised opinion leaders, a multi-faceted strategy involving knowledge brokers—individuals who facilitate collaboration between researchers and decision-makers—a formative evaluation project featuring an EBP workshop, a journal club, and a presentation initiative aimed at showcasing local EBP examples The interventions involving knowledge brokers, journal clubs, and local EBP presentations demonstrated increased effectiveness, leading to enhanced familiarity with evidence-supported tools, improvements in EBP practices, and positive shifts in attitudes and intentions to update clinical practices [5]. Organisations can mandate that physiotherapists allocate specific times within their schedules for these activities to further promote engagement with EBP.

The disparities in resource availability highlight the urgent need for organisational support to ensure that physiotherapists have access to essential materials and resources that facilitate effective EBP. Stander *et al.* (2020) [17] reported that participants perceived a lack of financial rewards associated with CPG uptake, which diminishes motivation to engage with these guidelines. Additionally, Quartey and Kwakye (2019) [11] found that rural organisations are more likely to offer resources such as paper journals, internet access, and personnel to support EBP than urban organisations. Their study also indicated that physiotherapists in teaching institutions receive financial support five times more often than those in non-teaching facilities, suggesting that educational settings offer greater resources for promoting EBP. A study conducted in Malaysia reported that even though journal articles may now be accessed online through a number of databases, some of them need to be paid for or require membership [31]. Organisations that fail to invest in necessary resources may find it difficult to retain talent, as employees are likely to seek environments where they have the tools needed for success and these needs should be communicated to external stakeholders [32]. Furthermore, without proper resources, organisations may struggle with poor service delivery, which can damage their reputation and viability. However, both the practitioner and the organisation must invest efforts in ensuring access to essential resources, such as online information, because the effectiveness of healthcare delivery is reliant on the

availability of accurate and timely data.

Three studies highlighted inadequate training and insufficient knowledge and understanding of EBP, particularly regarding statistical analysis and research skills. This lack of training mirrors the findings of a Ghanaian study, which calls for more research to bridge the gap in utilising research findings among physiotherapists. The authors reported that simply distributing health information consensuses through mail or journals does little to enhance clinical practice. They also argued that continuing education activities have minimal impact on the performance of healthcare professionals, as they tend to promote passive acquisition of knowledge. The study noted that the effectiveness of such educational initiatives is limited, as they do not sufficiently motivate physiotherapists to integrate EBP into their daily practice [33]. Research findings underscore the significant impact of peer-to-peer learning and mentorship on enhancing EBP. However, clinicians in regional and rural areas often face limited access to mentorship opportunities compared to their counterparts in metropolitan regions [34]. To improve mentorship access in rural areas, organisations could form partnerships with local entities and leverage technology for remote mentoring opportunities, ensuring that all clinicians benefit from robust support networks. Given that barriers are often context-specific, implementation strategies should be tailored to address particular challenges, emphasising the need to identify specific barriers present in different settings [35].

Moreover, Maigeh (2003) [36] and Baatiema *et al.* (2017) [37] revealed persistent barriers to evidence-based practice in healthcare, particularly among physiotherapists in Tanzania and stroke care professionals in Ghana, respectively. Maigeh (2003) highlighted significant obstacles such as heavy clinical workloads, inadequate remuneration, and systemic issues like the lack of policy monitoring and established practice standards [36]. Baatiema *et al.* (2017) pointed out patient-level barriers, including cultural beliefs framing stroke as divine punishment, late arrival at the hospital, discharge against advice and denial of their condition, and hospital-level challenges like insufficient staffing and resources. Additionally, healthcare provider factors such as inadequate knowledge and poor collaboration further complicate the implementation of EBP in acute stroke care [37]. Addressing these barriers through organisational support, training programs, and community engagement could significantly improve the integration of EBP into routine clinical practice.

While certain barriers, such as time constraints and increased workloads, are prevalent globally, the unique challenges faced by physiotherapists in SSA necessitate tailored interventions. These challenges include addressing cultural sensitivities that may differ significantly from those encountered in nations with differing cultural backgrounds outside the African region. The cultural context can profoundly influence the acceptance and implementation of EBP; thus, healthcare providers must navigate these sensitivities to foster effective practice. Finding a balance between culturally competent practice and the selection of scientifically robust interventions presents a significant challenge when working with

ethnocultural groups (ECGs). This balance can be effectively achieved through the application of cultural adaptation procedures [38]. Examples of cultural adaptation procedures could be providing therapist training in cultural competency, flexible scheduling to accommodate cultural norms, using culturally appropriate communication methods and collaborating with community leaders.

The effective integration of research findings into clinical practice remains a significant challenge within healthcare, particularly when clinically relevant evidence is lacking. Research has demonstrated that the absence of clinically relevant evidence presents substantial barriers to the application of research in practice. This issue frequently arises when researchers focus on problems that are not directly relevant to clinicians or propose treatments that are impractical for implementation in real-world settings. The disconnect between the information clinicians require for their daily practice and the evidence provided by research has led to a widespread policy initiative advocating for the co-production of research. [34]. It is, therefore, essential to foster collaboration between researchers and clinicians from the outset of research projects, ensuring that studies prioritise practical and implementable solutions. Furthermore, investing in training programmes that equip clinicians with the skills to interpret and utilise research effectively will help bridge the gap between evidence and practice in this context. Future research should also explore context-specific strategies that can effectively close the divide between evidence and clinical application.

4.2. Facilitators

Practitioner facilitators of EBP were also noted, including positive attitudes, knowledge acquired through undergraduate training, engagement with research literature, and a desire for further learning. For instance, Tadyanemhandu *et al.* (2016) [15] reported that positive attitudes, knowledge obtained through undergraduate training, and reading journals were significant facilitators at the practitioner level among physiotherapists in Zimbabwe. In Nigeria, Ibikunle *et al.* (2021) [12] noted that positive attitudes and beliefs, confidence in implementing EBP, formal training about EBP, and interest in acquiring new skills were significant at the practitioner level, further emphasising the importance of educational background and supportive attitudes in facilitating evidence-based practice among healthcare professionals. Evidence-based practice has been defined as the integration of personal clinical expertise with the most current and reliable research findings alongside a consideration of patients' preferences and needs. Central to EBP are two main characteristics: confidence and the judicious use of the best available evidence [38]. A positive attitude further enhances these traits, encouraging practitioners to actively engage with current research and apply it effectively in practice.

Stander *et al.* (2020) [17] noted that training was a significant facilitator for CPG uptake. Research indicates that there is no uniform approach to educating physiotherapists or assessing the effectiveness of knowledge translation regarding

evidence-based practice or clinical practice guidelines outcomes. Recognising local barriers to the utilisation of evidence-based practice or clinical practice guidelines could help tailor the training programme for the specific physiotherapy group [39]. This is consistent with findings from a study conducted in the Philippines, where positive attitudes and self-efficacy were found to be significant factors in the uptake of research evidence among physiotherapists. However, without addressing the identified barriers, the potential for these facilitators to enhance EBP remains limited [40]. Studies by Quartey & Kwakye (2018) [11] and Ibikunle *et al.* (2021) [12] indicate that advanced degrees in physiotherapy serve as a facilitator for EBP implementation. Similarly, Al Ketbi *et al.* (2021) [41] found that higher educational qualifications correlate with a greater likelihood of engaging in evidence-based practices among physiotherapists in the United Arab Emirates.

In addition to educational attainment and targeted training programs, organisational support can significantly enhance the uptake of EBP, according to Scurlock-Evans *et al.* (2014) [5]. These elements, when combined with a supportive organisational culture, create an environment conducive to the effective implementation of evidence-based practices. Furthermore, as highlighted by Sawadogo *et al.* (2024) [14], the presence of collective support from colleagues, mandatory use of standardised outcome measures and managerial backing can further bolster EBP adoption. These findings align with findings from Obembe *et al.* (2019) [42], which similarly highlighted that organisational support and a culture promoting the use of standardised outcome measures facilitate balanced clinical assessments. However, it is crucial to address the barriers posed by insufficient resources, particularly in resource-limited settings like sub-Saharan Africa (SSA) which may hinder access to these resources.

Ibikunle *et al.* (2021) [12], indicated having interest in acquiring more knowledge as a facilitator for EBP. Factors associated with information-seeking behaviours in physiotherapy include affiliation with a professional association. The implications of such membership may suggest that the advantages it offers, such as access to academic journals, encourage members to engage with the research literature more actively. Alternatively, it could indicate that being part of a professional body correlates with a greater propensity to participate in EBP activities [43].

Addressing contextual factors is crucial for effectively promoting EBP and ensuring that practitioners in resource-limited regions can provide evidence-based care to their patients. Targeted strategies such as developing local networks and integrating EBP during clinical education may harness the facilitators identified in this scoping review. Additionally, the involvement of professional associations and regulatory bodies in advocating for EBP and providing resources and support to practitioners could significantly contribute to its adoption [44].

It is noteworthy that other studies have not reported organisational facilitators, likely because these aspects were not the primary focus of their investigations. This observation highlights a gap in the literature, as many studies tend to concentrate predominantly on barriers to EBP rather than exploring the facilitators that could

mitigate these challenges.

In addition to this, while intra organisational barriers and facilitators have been documented, there is a notable lack of research specifically addressing extra organisational barriers or facilitators that affect physiotherapists in SSA. This gap is significant, as highlighted by Kanmounye *et al.* (2020) [45], who identified a lack of mentorship, a lack of institutional review board (IRB) meetings and high costs of IRB approval as significant extra organisational barriers impacting healthcare practitioners. Furthermore, the essay underscores the importance of collaboration with international partners, which can serve as both a facilitator and a barrier. While such partnerships may provide essential resources and expertise, they can also lead to misalignment of research priorities and methodologies that do not adequately reflect local contexts.

The scarcity of research in this area suggests a pressing need for future studies to explore these factors, as they may significantly influence the engagement of physiotherapists in EBP within sub-Saharan Africa.

5. Conclusions

The findings of this scoping review underscore the need for more comprehensive investigations into the barriers to and facilitators of EBP, as very few out of the 47 sub-Saharan African countries have published articles directly related to this topic within the last two decades. In conclusion, while significant intra organisational factors affecting the implementation of EBP exist among physiotherapists in SSA, the exploration of extra organisational factors is crucial for a comprehensive understanding of these factors. The current literature appears to underrepresent the role of extra organisational barriers and facilitators in EBP among physiotherapists in SSA.

Addressing this gap through targeted research could enhance understanding and ultimately improve the implementation of evidence-based practices in the region.

The findings of this scoping review reveal critical insights into the barriers and facilitators of evidence-based practice among physiotherapists in sub-Saharan Africa. Notably, the scarcity of published research from 47 countries over one decade highlights a significant gap in understanding and addressing EBP challenges in this region. This lack of literature suggests not only a need for more comprehensive investigations but also raises questions about the prioritisation of EBP within healthcare policies and funding frameworks.

While intra organisational factors such as resource availability and training significantly affect EBP implementation, our review underscores the necessity to explore extra organisational factors, such as systemic healthcare challenges, to gain a holistic understanding of EBP adoption.

By addressing practitioner, organisational and extra organisational barriers while promoting the identified facilitators, targeted strategies can be developed to increase the use of EBP in physiotherapy, ultimately improving patient care and

outcomes in SSA.

6. Limitations of the Study

- *Limited Research Focus*

The findings indicate that many studies predominantly concentrate on intra-organisational factors, such as training, resources, and organisational culture, while extra organisational factors, such as policy influence, healthcare system support, and international collaborations, are frequently overlooked. This oversight may account for the lack of information specifically addressing these external influences in the context of EBP among physiotherapists in SSA.

- *Facilitators Discovered Incidentally*

In our review, several facilitators were often mentioned only in passing within studies primarily focused on barriers. This suggests that while facilitators do exist, they may not be systematically researched or highlighted in the literature. For instance, some papers identified organisational support as facilitators but did not explore these aspects in depth.

- *Small Study Pool*

The limited number of studies reviewed may restrict the generalisability of the findings and highlight a need for more comprehensive research in this area.

7. Recommendations for Future Research

Future studies should aim to explicitly investigate extra organisational factors that influence EBP among physiotherapists. This could involve exploring the roles of policymakers, funding bodies, and collaborative networks in shaping EBP practices. The variability in healthcare systems across different countries in SSA may mean that barriers and facilitators can differ significantly by region. Therefore, localised studies focusing on specific contexts could yield valuable insights into how extra organisational factors impact EBP. Additionally, a more balanced exploration of facilitators alongside barriers would enrich the understanding of how to promote EBP effectively.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix 1

Table A1. Data extraction form.

Category	Theme	Example of barrier	Example of facilitator
Practitioner factors:	Knowledge and skills	• Lack of EPB training • Limited access to information	• Higher academic degrees • Training on EBP
	Attitudes and beliefs	• Lack of self-confidence • Time/workload concerns	• Positive attitudes and beliefs • Personal interest
Organisational factors:	Support and Infrastructure	• Lack of mentorship • Lack of infrastructure • No time allocated • Poor organisational culture • Lack of policies and procedures to facilitate EBP	• Mandatory use of EBP • Workshops/conferences • Time allocated to research activities • Increase in manpower
Extra organisational factors:	Resources and funding	• Insufficient IRB meetings • Cost of IRB approval • Unavailability of funding	• Regular IRB meetings • Financial support • Networking and partnerships • Access to educational opportunities • Collaborations

Table A1 presents a pre-existing data extraction form that was initially piloted to ensure its effectiveness in capturing key information from studies on barriers and facilitators to evidence-based practice among physiotherapists in sub-Saharan Africa. The piloting process allowed us to test the framework, refine its categories, and ensure clarity.

The table categorises themes influencing the utilisation of EBP into three main categories: 1) practitioner factors, 2) organisational factors, and 3) extra organisational factors.

- **Practitioner factors:** Practitioner factors encompass individual characteristics such as knowledge, skills, attitudes, and beliefs that directly affect a physiotherapist's ability to engage with evidence-based practices.
- **Organisational factors:** These refer to the structural and cultural elements within healthcare institutions that influence evidence-based practice. This includes aspects such as institutional support, availability of resources, and organisational culture that either facilitate or impede the adoption of evidence-based practices.
- **Extra organisational Factors:** These involve external influences beyond the immediate healthcare setting, such as funding availability, governmental policies, and community resources. These factors play a significant role in shaping the environment in which physiotherapists operate and can either support or obstruct their efforts to implement evidence-based practices.

Appendix 2

Table A2. Data extraction evidence table.

Database/Search Engine	Search terms/Key words	Number of articles retrieved	Number of full-text articles assessed for eligibility
PEDro and Cochrane	Barriers, facilitators, research, evidence-based practice, physiotherapy, sub-Saharan Africa	0	0
	Barriers, facilitators, evidence-based practice, physiotherapy, Africa	0	0
	Barriers, facilitators, physiotherapy, Africa	0	0
PubMed	Barriers, facilitators, research, evidence-based practice, physiotherapy, sub-Saharan Africa	2	1
	Barriers, facilitators, evidence-based practice, physiotherapy, Africa	4	2
	Barriers, facilitators, physiotherapy, Africa	60	5
Sabinet	Barriers, facilitators, research, evidence-based practice, physiotherapy, sub-Saharan Africa	78	2
	Barriers, facilitators, evidence-based practice, physiotherapy, Africa	371	3
	Barriers, facilitators, physiotherapy, Africa	459	3
BMC	Barriers, facilitators, research, evidence-based practice, physiotherapy, sub-Saharan Africa	21	0
	Barriers, facilitators, evidence-based practice, physiotherapy, Africa	90	3
	Barriers, facilitators, physiotherapy, Africa	132	4

Table A2 is a data extraction evidence table presents a systematic overview of the literature search conducted in July, August and September 2024 to identify barriers and facilitators to evidence-based practice among physiotherapists in sub-Saharan Africa. The table includes essential information from five key databases: PEDro, Cochrane, PubMed, Sabinet, and BMC. Each entry lists the database or search engine used, the specific search terms and keywords employed, the total number of articles retrieved, and the number of records assessed for eligibility.

In total, 1217 articles were initially retrieved; however, upon further assessment, only 23 full-text articles met the eligibility criteria for inclusion in this review. Additionally, searches were extended to grey literature by examining reference lists and utilising Google Scholar and websites. It was noted that the majority of studies found through Google Scholar were already represented in the aforementioned databases, while others lacked sufficient eligibility.