



Women Health Physiotherapy Rehabilitation in Community Based Education

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Abstract

Introduction: Being male or female greatly influences health outcomes, shaped by both biological factors and gender related distinctions. Physiotherapy in women's health has progressed significantly since its origins in early 20th century. Gaps in women's health and physiotherapy rehabilitation within community settings pose a major obstacle to achieving better long term health outcomes. The aim of the study is to investigate the perspectives of patients and medical staff on women health physiotherapy rehabilitation in Community Based Education (CBE).

Methodology: This study utilized a qualitative descriptive approach to examine the results of implementing a physiotherapy CBE model in women's health, incorporating perspectives from both patients and Primary Health Care (PHC) professionals. The study was conducted at the Al Gosi Centre, Omdurman, Sudan. Data collection involved conducting interviews with eight health professionals and organizing group discussions to gather feedback and reports from 15 women receiving healthcare services. Data analysis focused on transforming interviews and discussion group sessions into comprehensive transcripts and deriving analytical themes from the results. All ethical confederations have been obtained.

Results: Most patients view Women's Health Physiotherapy Rehabilitation within CBE as a traditional treatment approach that involves exercises and massage. A smaller group describes it as a therapy incorporating a relaxation machine. Overall, patients perceived the intervention positively, noting increased awareness of harmful behaviors, a general improvement in functional levels, and, for some, a reduction in symptoms. However, most of the staff demonstrated limited knowledge about Women's Health Physiotherapy Rehabilitation within CBE, often assuming it focuses solely on orthopedic cases. Staff members also highlighted several challenges in implementing the rehabilitation program, such as insufficient medication supplies, inadequate laboratory resources, a lack of specialized personnel, and limited facilities and equipment.

Conclusion: The study revealed a lack of awareness among patients and staff regarding women's health physiotherapy rehabilitation in CBE. There is a clear need to educate physiotherapy students, women's health patients, and medical staff about the significance of such rehabilitation.

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Introduction

Women's health encompasses a field of medicine and a comprehensive approach that addresses the physical, emotional, and social well being of women at every stage of their lives. Being male or female greatly influences health outcomes, shaped by both biological factors and gender related distinctions. Women typically have longer life expectancies but often experience more chronic, non-fatal health conditions. In contrast, men tend to have shorter lifespans, higher incidences of cardiovascular disease, and are more likely to engage in risk-taking behaviors [1]. Example of women common health conditions is Breast Cancer. According to [2]. Breast Cancer stands as the most frequently diagnosed cancer worldwide, accounting for more new cases and deaths. It constitutes one in every four cancer diagnoses among women globally, with its incidence rising since 2008. In the United States, approximately 1 in 8 women is expected to develop invasive breast cancer at some point in their lives [2]. It is essential to address misinformation and improve women's understanding to bridge the knowledge gap, encourage early intervention, minimize complications, and foster positive health seeking behaviors regarding women's medical conditions [3]. Physiotherapists hold important roles as integral members of both interdisciplinary and multidisciplinary rehabilitation teams [4]. Physiotherapy in women's health has progressed significantly since its origins in early 20th century [5]. Over time, it developed into a specialized discipline focused on pelvic floor dysfunction, chronic pain, and tailored musculoskeletal care. Early advancements were driven by pioneers such as Minnie Randell in the 1910s and the use of uterine massage techniques [5]. The focus of the field expanded beyond traditional obstetric care, evolving in response to the feminist movements of the 1970s and growing knowledge about musculoskeletal and pelvic health [6]. More recently, specialized training has centered on addressing issues such as incontinence, chronic pelvic pain, and pelvic girdle pain through evidence-based exercises, manual therapy, and myofascial techniques [7,5]. In other words, physiotherapy rehabilitation in women's health focuses on reducing pain, promoting improved tissue regeneration, and restoring functionality across various clinical conditions [8]. Physiotherapy training and practice in women's health largely rely on the community as a fundamental source of knowledge. As part of their training program, physiotherapy students dedicate a period to community placements [9,10]. This aims to immerse students in the dynamics of the community. It allows them to engage in community work activities and identify issues relevant to the community. This is called Community Based Education (CBE) which bridges academic learning with the needs of the local community, transforming the surrounding environment, culture, and institutions into a dynamic classroom [11].

This practical approach nurtures critical thinking, civic engagement, and skill building by involving students in real world challenges through collaborative partnerships in the rehabilitation process [11]. Women's health physiotherapy plays a vital role in CBE and Community Based Rehabilitation (CBR) worldwide, with significant applications across numerous low- and middle-income countries in Asia, Africa, and Latin America [12]. These programs focus on key areas such as antenatal and postnatal care, pelvic health, and promoting functional independence [12]. Gaps in women's health and physiotherapy rehabilitation within community settings pose a major obstacle to achieving better long term health outcomes. These challenges occur across patients, providers, and systemic levels. Research highlights prevalent misconceptions about sensitive women's health issues, especially in rural or underserved regions. For example, sociocultural stigma hinders women from addressing pelvic health issues, resulting in delayed treatment and potential complications [13]. To achieve improved long term health outcomes, literature recommends incorporating health promotion into women's health physiotherapy rehabilitation within CBE programs [14]. Health promotion within community-based women's health physiotherapy emphasizes empowering women by providing education on pelvic floor health, pregnancy, and menopause, aiming to reduce the risk of long-term dysfunction [15]. Such programs prioritize preventive exercises, enhanced mobility, and fostering sustainable lifestyle changes. Often directed toward underserved populations, these initiatives strive to improve access to care while promoting a shift from reactive treatment to proactive prevention [16]. In Sudan, several limitations affect the women's health physiotherapy rehabilitation in CBE. In addition, the ongoing conflict has significantly widened educational gaps in women's health and physiotherapy, with more than 80% of medical facilities closed [7,17]. This breakdown has transformed existing knowledge deficiencies into a humanitarian crisis [18]. Therefore, this study aimed to investigate the perspectives of patients and medical staff on women health physiotherapy rehabilitation in CBE.

Methodology

This study employed a qualitative descriptive design to explore the outcomes of implementing a physiotherapy CBE model in women health, considering the viewpoints of patients and Primary Health Care (PHC) professionals. The research was carried out at the Al Gosi Centre, situated in Omdurman, Sudan. Researchers engaged the center to present their work plan, followed by an interactive session with the community animator. Utilizing a purposive sampling method, researchers collaborated with the community animator to encourage involvement from the targeted group within the community. The animator played a key role in motivating participation at the PHC. Community animation strategies

employed included distributing posters and pamphlets, alongside voice announcements disseminated through megaphones. Participants who agreed to join the study signed informed consent forms, officially becoming part of the sampling population. Data collection focused on interviews with 8 health professionals and group discussions aimed at gathering 15 women health patients' feedback and reports. Assessment tools were applied, with individual patient records meticulously maintained throughout the process, which lasted three days. Preparations for the fourth day, designated as "Dissection Day," involved additional awareness efforts using posters, pamphlets, and lectures. Feedback was continuously collected via group discussions. This phase culminated at the end of the week with both dissection procedures and detailed feedback from patients. Additionally, structured interviews were conducted to document the expertise and insights of 8 healthcare professionals involved in the initiative. The data analysis primarily centered on qualitative data collection, involving the conversion of interviews and discussion group sessions into detailed transcripts. This process unfolded in three key stages: initially, a meticulous line-by-line coding of the transcript findings; next, organizing the free codes into related categories to identify consistent descriptive themes; and finally, developing analytical themes based on these findings. A thorough description of the study was provided, ensuring ethical approval was secured. No personal information about the participants was disclosed, and all health-related details were maintained with strict confidentiality. Participants were also given the freedom to withdraw from study at any point. Additionally, patients provided their consent by signing a form to confirm their voluntary participation.

Results

Patients' feedback on women's health physiotherapy rehabilitation in CBE

During the first week, the researchers evaluated approximately 60 patients, the majority of whom reported issues such as lower back pain. However, only 15 patients participated in the discussion and provided feedback.

Most of the patients describe physiotherapy as traditional way for treatment, exercises and massages, and a few of them describe it as type of therapy, which uses a relaxation machine.

"Its helpful treatment for facial palsy and orthopedic cases"

Most of the patients explain the tools as electrical machines, and some of them explain it as exercises or massage as their personal experience or other relatives and friend experience.

"It uses machines and massage"

Most of the patients did not try physiotherapy (eight patients) while the minority experience it (six patients)

"No but I heard about it"

All patients describe physiotherapist's activities in the center by beneficial, good, and perfect

"It is best way to help people"

All the patients describe the intervention in a positive way by becoming aware of different wrong behaviors, increasing their functional level as general, and some of them have a decrease in symptoms.

"The exercises decrease the leg oedema and low back pain"

"Now I know how to carry things, good posture, and protect my back from pain"

Staff feedback on women's health physiotherapy rehabilitation in CBE:

Most of the staff were female, with most of them having around six months of experience at the El Gosi Center. The team includes a medical manager, an internal medicine doctor, a dentist, a radiologist, a matron, a laboratory technician, a nutritionist, and midwives.

Most of the staff had poor information about physiotherapy in women health. They think it only concentrates on orthopedic cases.

"I have poor information about it, I think it is useful for CVA patients and orthopaedic patients it can complementary treatment or in some cases independent treatment"

"It is new treatment method for trauma in spinal cord for muscles and nerve rehabilitation, rehabilitation after dental surgery, dentist need physiotherapy because posture of the dentist during session"

Most of the staff believe that Women's Health Physiotherapy Rehabilitation in CBE serves to immerse students in the community, helping them learn how to interact with patients effectively.

"Yes, it is way of practical learning for student"

"Yes is the awareness method for community by visiting the community"

"Yes, it complementary to theoretical part"

Most of the staff acknowledge numerous challenges in Women's Health Physiotherapy Rehabilitation within CBE. These include shortcomings in medications, laboratory resources, specialized personnel, facilities, and equipment.

"There is decreased in medications, malfunction of machines and decreased or absent equipment's that need for"

small surgery and laboratory”

“Electricity, water”

“No specialized doctor”

“Decrease in laboratory equipment’s supply from the ministry of health”

“No limitations in vaccination, sometime there is no electricity that will effect on the vaccine because it safe on 2-8 degree centigrade”

“There is need for specialized obstetric and geological doctor”

Discussion

In this study, some participants involved see physiotherapy as traditional way for treatments. Traditional treatments or traditional medicine refers to knowledge, skills, and practices rooted in indigenous theories, beliefs, and experiences that aim to preserve health and address physical or mental ailments. These methods, typically handed down through generations, incorporate approaches like herbal medicine, acupuncture, and manual therapies. Other patients see physiotherapy treatments tools as only exercises, massage, and electrical stimulation. This aligns with the study conducted by [3]. which emphasized a substantial lack of awareness regarding physiotherapy as a preventive measure for urinary incontinence among pregnant women. Educating women about physiotherapy, especially in women's health physiotherapy, focuses on broadening their understanding. This includes addressing topics such as pelvic floor rehabilitation, pregnancy related care, and the management of chronic pain. In addition, it can include organizing workshops, leveraging social media platforms, working alongside gynecologists, and sharing real life patient success stories [19]. The study conducted by [20]. emphasized the importance of dedicating substantial effort to the treatment and education of Sudanese patients. This approach included involving patients in demonstrating treatment practices at home, while also raising their awareness about the benefits and impact of physiotherapy rehabilitation. In other words, CBE enhances awareness and understanding of physiotherapy for women’s health by introducing specialized care, including pelvic floor rehabilitation, pain management, and pregnancy support, directly within communities, it effectively bridges knowledge gaps [21]. Most of the patients in this study had not pursued physiotherapy treatments. This aligns with findings from the study conducted by [7]. which highlighted restricted access to physiotherapy rehabilitation for pregnant women. Similarly, research by [22]. identified several barriers to physiotherapy access within the Sudanese community, including lack of awareness, financial constraints, transportation difficulties, and issues related to center policies. On the other hand,

those who had physiotherapy treatments in this study express their positive impression because they corrected their wrong beliefs about the physiotherapy rehabilitation and could feel decrease in their conditions symptoms and complications which result in a positive impact in their awareness. Regarding staff knowledge about women's health physiotherapy rehabilitation in CBE, most of participants think physiotherapy only concentrates on orthopedic cases. Medical professionals frequently have a narrow perception of women’s health physiotherapy, often linking it predominantly to orthopedics [23]. Similarly, the study was conducted by [24]. highlighted that a lack of awareness about physiotherapy care impacts patient referrals. Specifically, limited knowledge of women’s health physiotherapy within CBE and among referring practitioners contributes to significant underutilization of services, delays in care, and inappropriate referrals. This gap in understanding often leads to missed opportunities for women’s health physiotherapy in CBE settings, leaving patients dependent solely on medication and obstructing their functional recovery. Enhancing medical staff awareness about physiotherapy in women's health through CBE can be achieved by incorporating physiotherapists into community health centers, organizing interprofessional workshops, and establishing collaborative care models [19]. In Sudan, some educational institutions actively involve physiotherapy students in the community to engage in activities such as collaborating with medical teams for rehabilitation and raising awareness about the role of physiotherapy in recovery and rehabilitation [25]. This will empower patients, community members, students, and medical staff to engage actively within the CBR and CBE process as recommended by some staff participated in this study. this is to enhance physiotherapy services in Sudan by broaden educational programs and elevate service quality. Furthermore, professional organizations such as the Sudanese Physiotherapy Association (SuPTA) are actively working to raise awareness and advocate for the profession [26]. Medical staff participated in this study agreed on several challenges about women's health physiotherapy rehabilitation in CBE specifically resources, specialized health professions, facilities, and equipment. literature mentioned that limited resources and facilities are common factors contributing to restricted access to healthcare services in low socioeconomic settings, such as African countries, including Sudan [27,28]. Study by [28]. highlighted how limited resources hinder the role of physiotherapists in Intensive Care Units (ICUs) in Sudan [29]. Specifically, the shortage of ICU equipment, caused by resource constraints, was identified as a significant challenge [30].

Conclusion

The study revealed a lack of awareness among patients and staff regarding women's health physiotherapy rehabilitation

in CBE. There is a clear need to educate physiotherapy students, women's health patients, and medical staff about the significance of such rehabilitation. Additionally, the study identified several challenges in implementing women's health physiotherapy rehabilitation in CBE, including limitations in resources, access to specialized healthcare professionals, facilities, and necessary equipment.

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