


Physiotherapy and Community Based Education

Yousra Eltigani¹, Lina Saied¹, Hassan Abdelnour^{1,2*} , Tariq Abdulmagid¹, Nermeen Bleedy²

¹Physiotherapy Department, School of Health Sciences, Ahfad University for Women, Omdurman, Sudan

²Physiotherapy Department, Faculty of Applied Medical Sciences, Jerash University (JU), Jerash, Jordan

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*Corresponding author: Hassan Abdelnour

Physiotherapy Department, School of Health Sciences, Ahfad University for Women, Omdurman, Sudan - Physiotherapy Department, Faculty of Applied Medical Sciences, Jerash University (JU), Jerash, Jordan. Email: hasphysio@gmail.com

Abstract

Introduction: Community Based Education (CBE) assists students in acquiring professional skills within a community context, emphasizing both population groups and individual challenges they face in their daily lives. In CBE, students are anticipated to cultivate their problem-solving, communication, and critical thinking skills. The execution of the CBE program offers students a chance to enhance these abilities. The aim of this study was to implement the physiotherapy CBE model, to outline the outcomes, as well as to enhance the training of undergraduate physiotherapy students during their placements for the CBE program. **Methodology:** The researchers employed a qualitative descriptive study method at the Al Gosi Centre located in Omdurman, Sudan. Focus group discussions were conducted with individuals involved in health promotion and awareness programs, key personnel from the center, and patients. These discussions were audio recorded, and the data was subsequently analyzed and organized into tables and themes. All ethical considerations were mentioned. **Results:** The majority of patients characterize physiotherapy as a conventional treatment method that employs exercises and massages, often utilizing traditional creams and oils. All the patients report a positive experience with the intervention, as they become aware of various inappropriate behaviors, enhance their overall functional level, and some have experienced a reduction in symptoms. Most of the staff possessed knowledge regarding physiotherapy; the specialist was well-informed, with some staff members drawing from their professional experience, while others had learned about it through the experiences of their relatives. Most of the staff assert that both the students and the community will reap benefits. The students will enhance their self-confidence, implement theoretical knowledge, and observe various scenarios. On the other hand, the community will boost its awareness. **Conclusion:** Physiotherapists at the Al Gosi Centre apply the CBE model of physiotherapy, which includes health promotion and awareness initiatives. They outline the CBE program, detail the feedback received from clients, and discuss the health professionals' understanding of CBE and physiotherapy. Additionally, they share their experiential knowledge across various aspects after being exposed to community education. **Keywords:** Community Based Education (CBE), Physiotherapy CBE Model, Professional Skills, Training Enhancement, Placements, Self-confidence.

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1. INTRODUCTION

Community Based Education (CBE) is an educational method implemented within a community environment, distinct from the teaching hospital [1]. It enables students to acquire professional skills in a community context, emphasizing both population groups and individual challenges they face in daily life. The duration of each student's engagement in community and organizational environments may differ. This hands-on learning strategy seeks to integrate health profession schools into community development efforts [2, 3]. It is crucial for educators to establish connections between the curriculum taught in schools and the communities in which they operate. This approach is recommended

across various educational disciplines, including those involving health professionals.

Physiotherapy plays an essential role in enabling individuals with disabilities to surmount the obstacles that impede their involvement in community life [4]. By offering vital rehabilitation services within the community, physical therapists can cater to the specific needs of individuals with disabilities, enhance their functional capabilities, and foster their overall wellbeing. A cooperative approach among physical therapists, community members, caregivers, and local resources is imperative in improving physical, mental,

social, and quality of life results for individuals with disabilities.

Literature shows that many individuals in the physiotherapy fields felt proficient in certain clinical tasks, there exist considerable deficiencies in their readiness for the broader challenges of community practice [5]. In the study of Qutishat *et al.*, (2021), participants indicated that their undergraduate education sufficiently equipped them for the role of clinician, yet did not prepare them for positions that require collaboration, communication, and advocacy for both patients and professionals [5]. The quality of clinical placements and the involvement of educators were vital; however, the protective nature of these placements restricted exposure to authentic real-world situations [5]. A lack of mentorship and support led to feelings of isolation. To improve preparedness, the curriculum ought to incorporate more experiences that tackle real-world challenges, emphasizing various competencies and outcomes.

In Sudan, medical students demonstrate a deficiency in knowledge and skills pertaining to CBE and exhibit a neutral stance regarding its application in healthcare practice [6, 7]. Therefore, the literature suggests placing greater emphasis on formulating a well-structured strategy for implementing CBE in higher education settings [7, 8].

Future research should focus on the creation of contextually relevant competency frameworks and the long-term impacts of community service on career progression. This study aims to investigate the outcomes of implementing a physiotherapy CBE model.

2. METHODOLOGY

A qualitative descriptive design used in this study to examine the results of applying a physiotherapy CBE model considering the perspectives of Primary Health Care (PHC) professionals. The study was conducted at the Al Gosi Centre located in Al Hara 11, within the Umbada locality of Omdurman, Sudan.

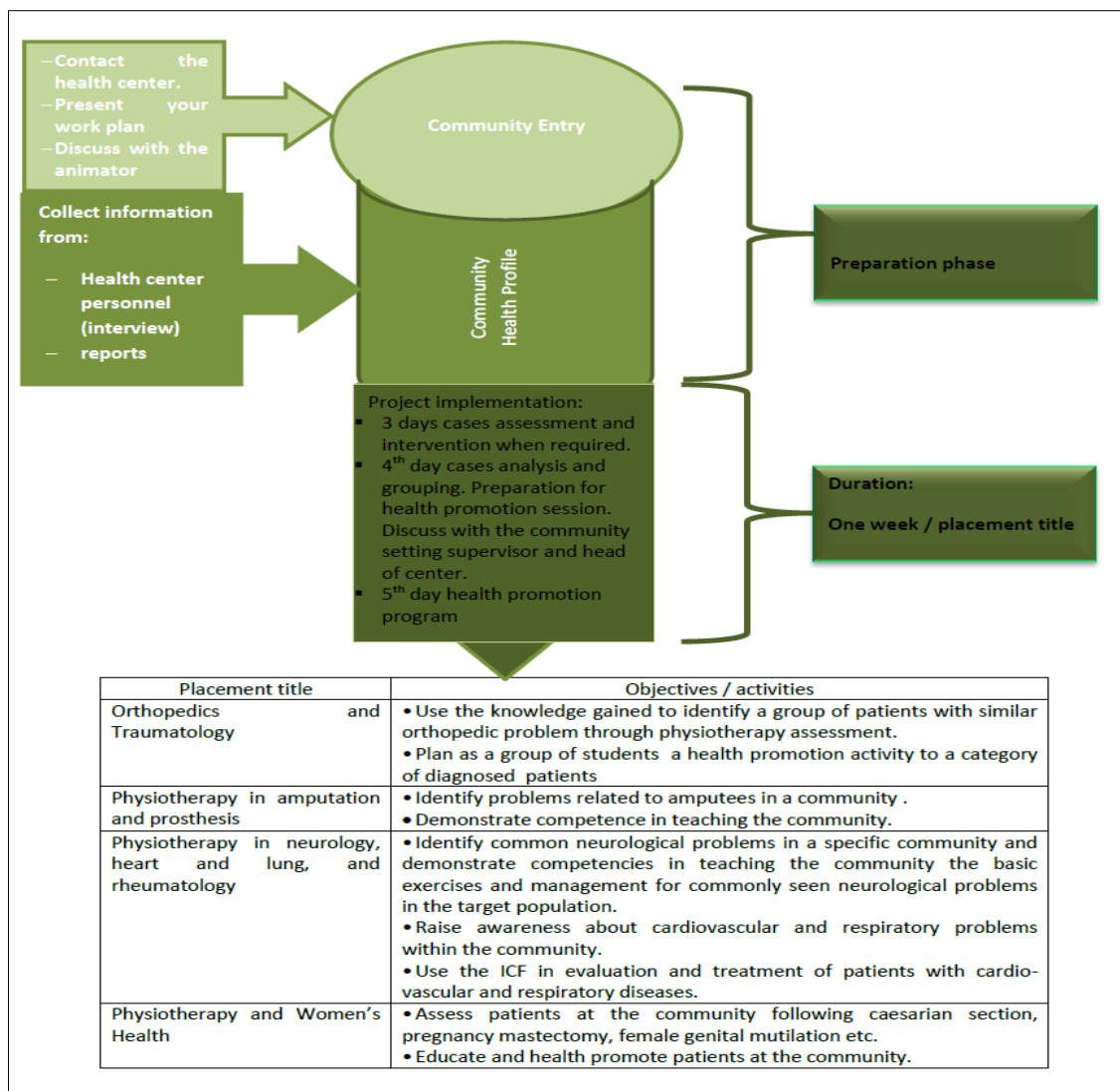


Figure 2.1: Persuaders of data collection

As shown in figure 2.1 the researchers contacted the Centre to present the work plan, followed by discussions with the community animator. The data collection involved interviews with health personnel and group discussions to gather feedback and reports from patients. The researchers employed a purposive sampling method, engaging the community to participate in the study through a community animator prior to each week of the study's procedural timing. The animator was responsible for encouraging the targeted community category to take part in the study at the PHC. Two methods were utilized for community animation: posters, pamphlets, and voice announcements in mosques. Community members who consented to sign an informed consent form became the sampling units. Subsequently, assessment tools were employed, and records were maintained for each individual patient. This assessment spanned three days. On the fourth day, preparations for dissection day were made using posters, pamphlets, and lectures, with feedback collected through group discussions. Furthermore, at the end of each week, dissection and feedback were obtained from patients. The first week focused on orthopedic cases, the second on neurological cases, the third on women's health, and the final week on amputation cases. Additionally, the knowledge of health professionals was documented through structured interviews.

The analysis of the data was primarily focused on the qualitative data collection, where interviews and discussion groups were converted into transcripts. This process was carried out in three stages: first, a line-by-line coding of the findings from the transcripts; second, the categorization of the free codes into related areas to establish constant descriptive themes; and third, the formulation of analytical themes.

A comprehensive description of the study was given along with ethical clearance. None of the participants' personal credentials were reported, and all information pertaining to the participants' health was kept confidential. Furthermore, participants had the right to withdraw from the study at any time. Additionally, the patients signed a consent form to indicate their acceptance of participation.

3. RESULTS

3.1 Patient Knowledge, Experience, and Perception

3.1.1 Knowledge

There are varying perceptions regarding physiotherapy knowledge among patients. The majority of patients characterize physiotherapy as a conventional treatment method that employs exercises and massages, often utilizing traditional creams and oils. Conversely, a minority of patients view it as a form of therapy that incorporates relaxation machines.

"Physiotherapy is a massage therapy."

"It is exercises and electrical therapy"

"I did not know about it; and I know about it through you."

"It is natural treatment without surgical intervention."

"I didn't hear about it but I think it is traditional way of treatment like bone sitter."

"It is comfortable treatment method for orthopaedic patient"

"It scientific treatment for rehabilitation "

"It fitness exercises therapy "

"It is used for general body aches, ligament tear, numbness, pregnancy, and fitness"

"It is natural exercises for pain. "

"It helpful treatment for facial palsy and orthopaedic cases"

3.1.2 Experience: The majority of patients did not undergo physiotherapy whereas the minority experienced it.

"No, I didn't."

"I did 12 sessions in "Al Alarabi" centre, and I did to wise before for facial palsy."

"I did 6 sessions in "Awlad Albady" in "Al Arda" street for knees pain"

"I did for knees in "Al Sadaka" hospital and I stop it because it expensive, far and waiting for long time."

3.1.3 Perception

All the patients report a positive experience with the intervention, as they become aware of various inappropriate behaviors, enhance their overall functional level, and some have experienced a reduction in symptoms.

"The pain decreases and my performance in job increased."

"Are good exercises and I became more comfortable."

"I became flexible and fit and I returned to normal posture, and activities."

"It is good and beneficial exercises and my pain and swelling decrease which made me active and I can visit my neighbours and I can go shopping."

"The pain and numbness decrease in my leg and low back, and I become comfortable after exercises and I will never stop it."

"The pain decreases and I can move my neck to sideward and backward more easily, I became more comfortable in praying"

"The exercises you gave me is more beneficial than machine that I used before"

"I got more benefits from previous physiotherapy treatment"

"The pain decrease, standing, walking, in praying he can stand and sit more easily"

"The exercises make me feel comfortable, decrease pain hand and knees, walk easily from centre to my home "

"The knee swelling starts to decrease."

"I get more advices and information about my condition, and I learn useful exercises to reduce my pain and increase my activity. "

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

"The exercises are perfect and reduce my shoulder pain and I can elevate my shoulder more than past."

"Her breathing pattern improved, and the low back pain decrease."

3.2 Staff Knowledge, Experience, and Perception

3.2.1 Knowledge

Most of the staff possessed knowledge regarding physiotherapy; the specialist was well-informed, with some staff members drawing from their professional experience, while others had learned about it through the experiences of their relatives.

"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"

"I know everything about the physiotherapy every one need physiotherapy nobody is immune, it is complementary treatment it is part of the treatment circle, it has maximum benefit for patient life and movement specially for neurological patient (viral infections, quadriplegia, hemiplegic, paraplegia) orthopaedic, geriatric, obesity specially in women, pregnancy"

"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"

"Geriatric patient, fracture after plaster"

"Rehabilitation for amputation due to diabetes, stroke, orthopaedic, paediatric"

"Is a complementary treatment after medications treatment and is effect on sport injuries, knee joint and cartilage diseases, RTA and I heard it is good for amputee patients"

"I don't know much information but I heard it is massage on pain area apply for many sessions. also, it is complementary treatment for dislocation and trigger point"

"I know every benefit about it because I was hemiplegic before seventeen years because of hypertension, and I was in pad situation but now I return back to my job, I did physiotherapy before"

Most of the staff think that is use electrical machines and massage therapy; the minority think it use therapeutic exercises therapy.

"Electrical machines and therapeutic exercises"

"Machines"

"Massage"

3.2.2 Experience:

Most of the staff believe that it is a means to engage the student within the community and acquire skills in patient interaction.

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

"Yes, it is art of learning depends on inter in community for treat their need and make screening, health promotion is the part of treatment"

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

"No"

"Yes, it is new separated specialization in Sudan"

"Yes, it complementary to theoretical part"

"Yes, I did, it is a hundred present beneficial way of learning, and I love the student to learn by this practical way"

Most the staff believe that it is an effective method to engage with patients, receive training, integrate the theoretical aspects with practical applications, and showcase health promotion services to the community.

"It is good way to learn practically and theoretically it increase the awareness level for community"

"The student, the staff and the community will get benefit from it, how to direct the people deal with chronic diseases like malaria"

"Training and contact with the community"

"I don't know"

"I encourage it"

"Is the most important way to deal with the community and implement the theoretical part"

"Every student especially in medical field must apply it"

"The student learns the practical part of the knowledge, also they learn how to manage the centre"

3.2.3 Perception

Most of the staff assert that both the students and the community will reap benefits. The students will enhance their self-confidence, implement theoretical knowledge, and observe various scenarios. On the other hand, the community will boost its awareness.

"It adds a lot for student personal level it increases the confident and it can be as training for student because they try the work environment"

"Student learns medical knowledge and the methodology of research, contact with the community and know the problems of the community and suggest solutions and become decision maker, building personality"

"Dealing with patient and staff and increase self-confident decision making without supervision and convene the patient"

"I don't know"

“The student deal with different cases and staff, increase knowledge, the acceptance of patient for treatment. Increase knowledge of staff and background about the disease “

“Increase student’s information and know the common diseases in the area and the distribution of the diseases. It is necessary for graduated student to start adapted with work environment”

“The student deal with different cases and learn how to be patient and familiar with patients. And present new information for the community and make health promotion”

“The student becomes strong when dealing with patients”

4. DISCUSSION

By promoting interprofessional learning and raising awareness of the impact of Social Determinants of Health (SDH), CBE offered beneficial learning opportunities that resulted in personal and professional growth [9]. Exercises, massage, lotions, oils, and relaxation devices are associated in the general concept of the physiotherapy tools, according to the study's findings on patients' knowledge of physiotherapy.

In Sudan, physiotherapy education was introduced in 2007 when many universities began offering undergraduate programs in the field [10]. The community's understanding of physiotherapy is still in its infancy. Exercises, massage, lotions, oils, and relaxation devices are associated in the general concept of the physiotherapy tools, according to this study's findings on patients' knowledge of physiotherapy. On the other hand, the experience on physiotherapy is generally short. This might explore the correlation between poor experience and poor knowledge at the community level. At the present time, it can be considered as a limitation facing CBE in Sudanese community [3]. Future expectations ought to be optimistic. To put it a no the way, more CBE programs in Sudan can positively affect the community's understanding of CBE and physiotherapy. According to a number of surveys, CBE is becoming more and more popular in Sudan as a means of training people for careers in health, especially physiotherapy [3-11].

Research indicates that CBE intervention has led to a notable decrease in the burden experienced by patients, as well as an improvement in the perceived social support among them [12]. The CBE program has successfully mitigated various elements of patient's strain [12]. All patients in this study have reported a favorable experience with the intervention, as they gain awareness of different inappropriate behaviors, improve their overall functional capacity, and some have noted a decrease in symptoms.

In this study, the majority of the staff had knowledge about physiotherapy; the specialist was knowledgeable, with certain staff members relying on

their professional experiences, while others had acquired their understanding through the experiences of their family members. The significance of family experience in rehabilitation is evident, as it yields positive outcomes in assisting various members of the community, as demonstrated in this study [13]. Furthermore, the staff in this study believes that CBE actively engages students within the community while fostering skills in patient interaction. Patient interaction in CBE pertains to communication that is centered on the patient, representing a model of healthcare interaction that emphasizes the needs, values, and preferences of the patient [14]. Additionally, staff in this study regard CBE as an effective method for acquiring training, integrating theoretical knowledge with practical applications, and showcasing health promotion services to the community. Literature stating that CBE highlights the essential skills and competencies necessary to meet the health needs of the community, which encompasses health promotion. The CBE initiative identifies the particular health challenges faced by a community to establish the required competencies for health professionals, thereby ensuring they are prepared to function as health promoters [15].

The majority of the staff involved in this study claim that both the students and the community will gain advantages. The students will improve their self-esteem, apply theoretical concepts, and witness different situations. Conversely, the community will increase its awareness. This aligns with the earlier research conducted in 2023 regarding Physiotherapy Students and Clinical Education in Sudan [3]. This indicates that the staff involved in this study gained insights into the advantages of CBE through their experiences, which are reflected in their knowledge and perceptions.

5. CONCLUSION

Physiotherapists at the Al Gosi Centre implement the CBE model of physiotherapy, which encompasses health promotion and awareness initiatives. They delineate the CBE program, provide details on the feedback obtained from clients, and elaborate on the health professionals' comprehension of CBE and physiotherapy. Furthermore, they convey their experiential knowledge across different facets after engaging in community education.

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