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Original Research

'Services were completely shut down': access to rehabilitation in the rural Eastern Cape Province of South Africa during COVID-19

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Abstract

Introduction: Persons with disabilities living in rural areas were disproportionately affected during the COVID-19 pandemic. This population, with a higher propensity for poor health and higher need for health services, bore the brunt of adverse effects of emergency regulations that cancelled or restricted access to rehabilitation. South African legislative and policy frameworks support the availability and promotion of disability and rehabilitation services as priority healthcare programs for all. Rehabilitation services in the country were, however, underresourced prior to the pandemic, and halted during lockdowns because of their non-essential status in the healthcare system. Within this context, this study explored the experiences of rehabilitation practitioners in the Eastern Cape Province of South Africa during the COVID-19 pandemic.

Methods: Forming part of a mixed study on inclusiveness of pandemic responses to people with disabilities, we reviewed government responses across different African countries, analysed the South African government responses to the pandemic and conducted interviews with rehabilitation practitioners in the rural Eastern Cape Province of South Africa. This article reports on the qualitative interviews, while the reviews and survey findings were published elsewhere. Rehabilitation practitioners were recruited from a provincial rehabilitation forum for practitioners who work in the public health facilities in the province. A combination of online and telephone individual interviews were conducted with participants, as well as three asynchronous interviews using Google Forms and WhatsApp. Transcriptions of interviews were analysed inductively and thematically through coding and categorisation.

Results: Eight practitioners participated in the study (a response rate of 8.4%). This included six physiotherapists and two occupational therapists. Three themes developed from data reported by the participants: reconfiguring rehabilitation services, experienced impact on rehabilitation service delivery and exacerbation of pre-pandemic rehabilitation shortfalls.

Discussion: The low priority of rehabilitation services as part of health services exacerbated pre-pandemic barriers for persons with

disabilities. The cessation of such services rendered rehabilitation wholly inaccessible to persons with disabilities in the province, with detrimental effects on their function, health and wellbeing. Practitioners suggested that integrated collaborative health and rehabilitation service delivery enabled the continuation of some service aspects to some persons with disabilities. Initiatives and adaptations to services were driven by practitioners, although often in the absence of clear directives from the Department of Health. Some alternative methods of delivery (eg telerehabilitation) that were deployed elsewhere, were not as accessible and viable for use in the rural Eastern Cape Province, which has poor technological infrastructure and connectivity.
Conclusion: The pandemic challenged rehabilitation services as it remained deprioritised. However, rehabilitation also adapted, with practitioners strategising on ways of reconfiguring these rehabilitation services. Health systems responses to emergent health events should include and capacitate rehabilitation services to support preventive and promotive approaches.

Keywords

accessibility of health services, COVID-19, pandemics, persons with disabilities, rehabilitation, South Africa.

Introduction

Persons with disabilities' access to equitable health care remains compromised despite greater healthcare needs and higher likelihood of experiencing poorer health than persons without disabilities[1-3]. We use the definition of the UN *Convention on the rights of persons with disabilities*, which refers to people with disabilities as 'those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others' (p. 3)[4]. Almost five million South Africans have disabilities[5], with those living in rural areas facing disproportionate challenges in accessing health care, including rehabilitation[6]. The growing need for rehabilitation services is well documented globally, yet persons with disabilities continue to have high unmet needs for such services in South Africa, similar to elsewhere[7-11]. Internationally, various frameworks recognise and promote the right to health (including rehabilitation) for persons with disabilities. At the 2021 World Health Assembly, WHO Member States adopted Resolution WHA74.8, which reiterates the need for countries to ensure that persons with disabilities exercise their full right to health[12]. The resolution aligns with broader international frameworks such as the UN Sustainable Development Goal 3[13] on ensuring healthy lives and promoting wellbeing for all at all ages, and the UN political declaration on Universal Health Coverage[14] – which commit to ensuring access to essential health services.

Locally, various legal frameworks support the right to health for persons with disabilities. The South African government's white paper on the Rights of Persons with Disabilities states that all people with disability have the right to quality and accessible health care and rehabilitation[15]. The Framework and Strategy for Disability and Rehabilitation integrates disability and rehabilitation services within priority healthcare programs from primary to specialised care levels of the health system[16,17]. Despite these policies, rehabilitation remains a low priority in budget and human resource allocation, and is not regarded an essential part of ensuring optimal health. As a result, many persons with disabilities continue to die prematurely, have poorer health and experience more functional limitations[18]. This issue is exacerbated during emergency situations as evidenced by the COVID-19 pandemic, which revealed the disadvantaged position of persons with disabilities within and beyond the health sector[19-22].

To strengthen the health system, various building blocks have been identified to support policy implementation, such as information and research, healthcare workforce and financing, and service delivery[23]. South Africans with disabilities are subjected to poorer access to health care, are more likely to report illness and they experience a greater need for healthcare services compared to their non-disabled counterparts[24-29]. The situation is worse in rural contexts, where persons with disabilities[27] disproportionately bear the consequences of apartheid spatial planning through the lack of development of rural areas[30]. Marked socioeconomic disparity still exists, with approximately 55% of South Africans living in poverty, and 3.8 million of the population being persons with disabilities. The evident link between disability and poverty has been documented extensively[31-33].

Rehabilitation as health care during COVID-19

Persons with disabilities are impacted directly and indirectly by public health emergency response measures[25,27,34]. The WHO grouped persons with disabilities among the most susceptible to contracting COVID-19, which is said to differentially affect vulnerable populations to experience severe morbidity and mortality[35]. Rehabilitation as part of universal health coverage is a key strategy for ensuring health and promoting wellbeing for all[36]. While the SA National Department of Health plans to achieve Universal Health Coverage through National Health Insurance (NHI) implementation, rehabilitation remains excluded in the majority of policies integral to NHI implementation[37]. There is also no clear plan to strengthen rehabilitation[38]. National disasters cause large-scale disruption of rehabilitation services, with vulnerable populations and weak health systems bearing the greatest impact[39]. The WHO states that rehabilitation is rarely considered part of health system preparedness and early response in health emergencies, resulting in the magnification of pre-existing limitations in rehabilitation services, less efficient health services delivery, and increased risk of impairment and disability to people affected by the emergency[39]. The cessation of rehabilitation services further contributes to the proliferation of disease, leading to impairment, poverty, social exclusion and poorer functional outcomes[40,41].

The low priority of rehabilitation services in South Africa prior to the pandemic was already evident and concerning, more so in the context of the low-resource public healthcare system[23]. Van Biljon and Van Niekerk[41] reported how rehabilitation services in the Gauteng Province were, in some instances, completely halted during the pandemic, and severely restricted in others. Their research highlighted the need for rehabilitation-focused leadership and clear policies to inform preparedness planning for future disruptive events that may disproportionately impact disadvantaged health services users, such as persons with disabilities[42].

Another study similarly reported how rehabilitation services were deprioritised or excluded during COVID-19 in five other South African provinces[43]. This position is attributed to the reality that South Africa lacks appropriate and reliable rehabilitation data to inform advocacy and high-level decisions among policymakers. The study found that frontline rehabilitation practitioners took the lead in collaborative team decision-making to solve service delivery challenges, veering from traditional command and control leadership styles that were imposed by public health institutional management[43].

Evidence from more rural and underresourced provinces such as the Eastern Cape of South Africa is limited. Persons with disabilities living in remote circumstances may be less able to participate in research due to a lack of technology, infrastructure and connectivity, while the magnitude of their challenges may be different from those of urban areas. Similarly, the voices of practitioners in these rural contexts are scarce in literature. This study aimed to uncover such voices to develop an understanding of the impact and aftermath of COVID-19 in relation to healthcare access of persons with disabilities from this region. This article reports the perspectives and experiences of Eastern Cape rehabilitation practitioners who serve persons with disabilities in this region.

Methods

A mixed methods study was conducted, comprising a scoping and desktop review of government health responses during the pandemic[22,44], a survey of persons with disabilities' experiences of accessing health care during the pandemic[21] and a descriptive qualitative study that involved semi-structured interviews with rehabilitation practitioners in the Eastern Cape Province of South Africa. This article reports the findings from these qualitative semi-structured interviews. The scoping review and survey findings were published elsewhere[21].

Using the UN *Convention on the rights of persons with disabilities*[4] and their *Policy brief: a disability-inclusive response to COVID-19*[45] as guiding frameworks, the study was developed using qualitative methodologies. These methodologies are most appropriate for generating subjective knowledge from within a context[46-48]. A narrative interview approach was used to facilitate storytelling as an accessible, natural and universal form of communication[49]. Narrative interviewing, as a teller-focused method, facilitates the generation of evidence about what matters to participants[50] and can, therefore, inform insights on situational, emotional and relational aspects that may not emerge from researcher-directed interviews.

Rehabilitation practitioners who work at public health facilities in the Eastern Cape Province constituted the research population. Almost 70% of people in this province live in poverty and reside in rural areas, with African and Indigenous Peoples, and people of colour, disproportionately affected by poverty[51]. It is the province with the highest unemployment rate in the country (44%), and prolonged poverty among its citizens, of over 50%[51].

Participants were recruited at a quarterly provincial rehabilitation forum meeting with occupational therapists, physiotherapists, and speech and language therapists from across the province. The study was presented and therapists who were working, and had worked during the pandemic, for the provincial Department of Health, were invited to give their contact details if they were interested in participating. Therapists who did not work for the Department of Health during the pandemic were excluded from the study. Follow-up invitations were sent to those who indicated interest, and a convenience sample of participants was compiled.

Interviews were scheduled with participants from August until December 2023, and an information sheet was shared prior to the interview. The first author conducted the interviews by telephone or via online platforms (Microsoft Teams and WhatsApp) for ease of access to participants. Interviews were between 30 and 60 minutes in duration. Three asynchronous interviews were also conducted using Google Forms and WhatsApp messaging due to connectivity and scheduling challenges. All interviews were conducted by the first author (ME) in English, and recordings were transcribed by a Microsoft Teams artificial intelligence meeting assistant. Through replaying interview recordings, transcripts were further checked for accuracy by a research assistant and the first author, and corrections or changes were made where necessary.

Transcripts were analysed inductively and thematically by a paid analyst who was a PhD student, and cross-checked by the first author. Analysis was performed by assigning codes to meaningful sections of data in Microsoft Word, then reviewing and collapsing codes, and then creating categories and subcategories of information. Coded information was transferred to Microsoft Excel for further analysis. Finally, categories were grouped together under three main themes.

The transferability of findings was ensured by noting thick descriptions of participant context and settings that promoted deep understanding of the data provided by them. The dependability was enhanced by creating an audit trail of all data collection methods and processes, including records of the development of the research question and problem. Guidance and oversight from an advanced researcher further contributed to increased dependability of data. The confirmability of findings was also enhanced through the audit trail, as well as through the inclusion of verbatim evidence from participants.

Ethics approval

This research forms part of a larger study for which ethics clearance was obtained from the Social, Behavioural and Education Research Ethics Committee of Stellenbosch University (REC: SBER15244). Electronic written informed consent to participation was obtained from each participant before interviews were conducted. Study information shared with participants included a statement about the use and safekeeping of participant information and the anonymisation of data.

Results

Eight practitioners out of 95 who were invited agreed to participate in the research, a response rate of 8.4%. Participants comprised six physiotherapists and two occupational therapists. All participants had been practising for at least 3 years at the time of the study. One participant is a senior manager at the Eastern Cape Department of Health, and the other participants deliver clinical and clinical managerial services at health facilities in the province. Clinician participants work at, respectively, five provincial hospitals, one district hospital and a community health centre. Regional hospitals offer specialist services such as diagnostic, treatment,

care, counselling and rehabilitation[52]. District hospitals are a referral source to regional hospitals, and provide a link in the referral chain between primary healthcare services and specialised services[52]. Community health centres (CHCs), in turn, act as intermediaries between community clinics and district hospitals, and offer primary healthcare services. These include 24-hour maternity services, emergency care and short-stay beds for patient observation. Rehabilitation services at CHCs may include occupational therapy, physiotherapy and speech therapy. Patients who do not require hospital admission are managed at CHCs, with the aim of reducing the burden on district hospitals[53]. The most rural workplace of study participants was in a small town approximately 120 km from the nearest city.

Participants reported their experiences under three main themes: reconfiguring rehabilitation services, impact on rehabilitation services and exacerbation of pre-pandemic rehabilitation shortfalls. Table I shows the themes and their associated categories.

Table 1: Themes and categories related to inclusiveness of COVID-19 pandemic responses to people with disabilities based on interview responses with rehabilitation practitioners, Eastern Cape Province, South Africa

Theme	Categories
Reconfiguring rehabilitation services	Disengagement from rehabilitation 'Lost in the system'
Impact on rehabilitation services	Having to advocate for the importance of rehabilitation Barriers to care Therapist wellbeing Role shifts and staff shortages Adapting rehabilitation
Exacerbation of pre-pandemic rehabilitation shortfalls	Lack of timely intervention Changes in the type of disability Procurement of assistive devices

Theme 1: Reconfiguring rehabilitation services

Under this theme, data reflected two categories: disengagement from rehabilitation and 'lost in the system'.

Disengagement from rehabilitation

Participants reported that they had to explain to and re-educate clients about the need for rehabilitation after services ceased entirely during lockdowns. Clients were reluctant to return for rehabilitation partly due to fears of infection. A participant from a provincial hospital reported:

> *Our biggest problem was trying to get the buy-in of our [clients] ... it's almost like we had to convince some people that actually you need the service, you need to come back and see us. (Key informant (KI) 8)*

A loss of trust in rehabilitation practitioners impacted the therapeutic relationship and, subsequently, the benefits of rehabilitation, when clients did not want to return for intervention. KI 8 experienced her clients' projections that she 'went missing for months, so why must I [the client] come back [to the] service?' She expressed that her clients felt abandoned and were questioning how rehabilitation would benefit them going forward. Another participant reiterated a sentiment about trust:

> *The trust in coming back to therapy ... we're still struggling with that and educating your [client]: why it's important to come, what we can offer ... [about] the impact of therapy. (KI 7)*

The prolonged unavailability of rehabilitation affected the clients' readiness to return to hospitals, and those who had previously attended regularly were fearful of contracting the COVID virus as hospitals had become associated with COVID-19 and death. A physiotherapist reported:

> *So there was that whole aspect of people being scared to come back to ... the hospital, really because it was almost like if you go to the hospital, you basically just going to sign up to get COVID. (KI 8)*

Clients who used public transport to attend rehabilitation were, similarly, fearful of being exposed to the virus when travelling with others.

Barriers to rehabilitation were heightened by the lack of telephonic means or reliable connectivity to remote rural areas in the province. Participants reported that reaching clients was difficult due to many clients not having telephones, or having unreliable internet connectivity.

Increased economic hardship influenced clients' decisions about attendance of rehabilitation. A participant reported how members of a stroke support group explained the financial considerations that the pandemic introduced in households:

> *Where they said, you know the way things are going now, it's really a big decision for them as a family, as a household ... does Granny go to hospital for her therapy or do we buy another loaf of bread to feed the family? (KI 9)*

'Lost in the system'

Some participants lamented that clients who were lost to rehabilitation services due to not being contactable when services resumed:

> *So the aftermath of the pandemic face us with two problems: number one, we had a large number of [clients] that were lost to follow-up. We had a lot of kids that were lost to follow-up even up till today. We have no idea where those kids are. (KI 5)*

Another therapist alluded to the systems failures in locating and reaching clients resulting from factors such as loss of connectivity and not having capacity to follow up on clients.

Theme 2: Impact on rehabilitation services

Five categories of information reflected the impact on rehabilitation services delivery as reported by participants: having to advocate for the importance of rehabilitation, barriers to care, therapist wellbeing, role shifts and staff shortages, and adapting rehabilitation.

Having to advocate for the importance of rehabilitation

Participants reported how the pandemic presented an opportunity to advocate for integrated allied health services as an indispensable part of public health services, where professionals work collaboratively to meet client needs and deliver quality care across various settings. One participant remarked how medical staff responded to scientific evidence from global research about physiotherapy respiratory interventions during COVID infection:

> *Doctors were very keen on getting the physios involved specifically with the respiratory side of things. So that's when our COVID client load picked up. (KI 9)*

While rehabilitation was suspended where such services were classified as non-essential, participants advocated for rehabilitation to be recognised as valuable and essential in health system responses during the pandemic, by using scientific evidence. They explained some of the perceptions about rehabilitation that they battled during the pandemic:

> *[Rehabilitation professionals] are kind of like taken as the trophy wives of the department. We were the first limb to go. We're not prioritised as we should be and even in our facility in particular. (KI 7)*

> *As we all know that … rehab, it's not one of the priority programmes. (KI 3)*

Another participant relayed that no other rehabilitation services, apart from chest physiotherapy, were regarded as important during COVID. At a district hospital, a participant and her peers advocated for rehabilitation services to continue:

> *So when we were expected to show up at the screening area, we just refused to go because we're saying we need to do our jobs. It's been months and we can see already that we're going to be missing out on a lot of patients and we are potentially causing disabilities in areas where maybe early intervention in terms of … rehabilitation could have prevented those things from happening. (KI 8)*

Barriers to care

Participants reported how personal protective equipment (PPE), as a crucial measure to curb the spread of the virus, impacted the delivery of rehabilitation care. Participants noted that obscured facial expressions with masks and visors made it difficult to maintain a personal connection and build trust with clients. Wearing PPE for extended periods daily was also hot, uncomfortable, made breathing difficult, and increased fatigue.

A physiotherapist further explained that masks and visors interfered with intervention procedures, and how they tried to adapt to overcome such barriers:

> *[PPE] is also a barrier, maybe you want to demonstrate a technique like purse-lip breathing sometimes, especially our area, the patients struggled to understand a verbal cue. So you'll have to demonstrate it. So, you know having to then demonstrate purse-lip breathing is difficult. So we did try and do pictures and you know visual documents, but still it's not the same as actually showing a patient how to do it. (KI 6)*

Participants who worked with children expressed particular challenges while donning all the PPE. Parents showed concern and anxiety about risks of infection to their children and themselves, if, for example, children grabbed or touched PPE to see the practitioner's face.

Conversely, participants were able to recognise the importance of PPE in delivering services during the pandemic, and in some instances reported that the wearing of PPE put clients at ease about their safety during interventions. A greater awareness of personal vulnerability and safety as a healthcare provider was an outcome for one participant during and after the pandemic.

A further factor that created barriers to care was practitioners' inability to provide outreach services due to unavailable or unreliable transport. A practitioner explained how this impacted clients' access to rehabilitation when they had spent money to travel from farms to clinics, while therapists did not have transport to reach the clinics to offer the services. This therapist had to spend much effort to convince clients to attend the clinic in future and to value rehabilitation following the therapist's failure to reach a service facility.

Therapist wellbeing

In the absence of health system support to rehabilitation programs, participants reported how their personal and psychological wellbeing were affected during the pandemic. One participant relayed her distress when reporting for duty in the morning and learning that all the clients she had treated the previous day in the COVID ward had passed on. Another participant expressed her experiences in relation to support:

> *The healthcare professionals that were working in the COVID ward wasn't [sic] offered any means of health programme support from their supervisors and their superiors or any kind of counselling. (KI 4)*

They reported how radical shifts in work schedules and fears about personal safety and the safety of their families contributed to psychological distress. Support seemingly varied across geographical areas, suggesting that the availability of support to rehabilitation practitioners was inconsistent.

Role shifts and staff shortages

Participants fulfilled roles during the pandemic that were outside of their scope of practice, and often operated in the absence of clear directive protocols. They reported how this caused confusion and uncertainty and prevented them from assisting or rendering services in an informed, therapeutic manner.

A participant referred to the 'panic mode' (KI 8) early in the pandemic, which informed management's decision to shift therapists to screening stations and away from seeing rehabilitation clients. Another participant reported how the lack of protocols and defined roles fed into uncertainty and stress at work, and the impact on her mental health when she could not do anything other than wait for instructions from management while the pandemic was emergent. One participant expressed these concerns:

> *One of the biggest concerns was the lack of standardised protocol and procedures when it came to physiotherapy and our role in treating patients with COVID-19 or, just like,*

hospital guidelines treating patients with COVID-19. I do understand that it was a very new condition and a new experience for most, but we didn't have anything to govern our practice at the time. (KI 4)

The pre-existing under-staffed levels of rehabilitation services in the public health system increased the reliance on newly qualified, novice practitioners during this emergent health situation. Adding to this point, a participant who works in a provincial managerial position's role changed to include the conducting of facility-based operational management activities due to a lack of therapy managers at this level. Participants surmised that understaffing may have put young therapists at risk without guidance and support from senior practitioners.

The issue of sufficient staff during the pandemic continued to be central for participants. At some hospitals, staff entered a rotational schedule with half of the rehabilitation staff serving total inpatient departments one week, and the other half doing the same the week after, to decrease the number of people at work at the same time. Smaller staff complements were therefore carrying higher workloads every week.

At provincial level, head office staff responsible for clinical personnel complied with a stream system introduced to serve and manage clinical services during the pandemic. A participant explained how she visited hospitals, reported information back to management and disseminated information to rehabilitation staff. Notably, the system was imposed on therapists with limited consultation, resulting in a widening of the gap between the health system and allied health professions, as explained by a participant:

So we're all involved and we're not given any choice. You had to be in one of the streams ... I think all they had expected was to comply with the rules and regulations and not ... deviate. There was no consultation prior ... it was just an instruction that says we need people to go and assist there and ... you are not expected to say no or yes. (KI 3)

Near the end of the first year of the pandemic, participants had not returned to their regular rehabilitation duties as therapists, but were still *doing* COVID-related work (KI 8).

Adapting rehabilitation

Despite difficulties and challenges in delivering rehabilitation services, participants reported ways in which they adapted approaches and interventions that enabled them to continue rendering a service to some clients. A participant described their collaboration with nurses and doctors in other departments to reach clients through word of mouth. Doctors were motivated to educate and refer clients to rehabilitation for evidence-based interventions that addressed COVID symptoms and dysfunction.

On a systems level, a senior manager at provincial level initiated the development of databases of rehabilitation clients:

I requested [practitioners] to start establishing a database for every facility. Then they report about the active patients in that database and the non-active [patients]. Now what is left for us is to have a system to go back and trace. (KI 3)

The participant stated, however, that the tracking and tracing of rehabilitation clients had not been systemised and that such a system still needed to be developed in response to the pandemic.

In some regions of the province, the Department of Health deployed contract general workers to assist with the retention of clients, and to prevent them from getting lost in the system. KI 4 explained how their department utilised these resources to promote rehabilitation goals:

During the COVID period the Department of Health decided to employ a lot of general workers on a contractual basis and two of our parent facilitators. So we utilised them in calling moms and keeping in contact with the cerebral palsy moms and children on a regular basis. (KI 4)

The participant further explained how she utilised contract workers to sustain contact and follow-up with caregivers of children with cerebral palsy, by asking qualitative questions about the status of a child's wellbeing, querying the caregivers' need for rehabilitation advice, or concerns about a child that would require the child to come to the hospital for further analysis and treatment.

At a provincial level, practitioners were mandated to develop outreach clinics because clients were unable and not allowed to attend rehabilitation at hospitals during and after lockdowns. These clinics enabled therapists to offer continued rehabilitation services in the rural areas during lockdown stages. A participant explained how outreach clinics enabled rehabilitation outcomes for clients:

So one positive that developed from COVID ... we at least developed a programme where we didn't let the patients go completely lost in the system, and where we could at least provide some assistive devices or ... just to prevent the disability to such a degree where the person now sits at home just because they had a stroke. (KI 7)

Participants confirmed that outreach clinic services have continued since the end of the pandemic, and regard the establishment of these clinics as a positive outcome from the pandemic. Infrastructure, in the form of transport, had been made available by the provincial Department of Health to support operations of outreach clinics, because health facilities often did not have transport available to therapists previously. The availability of transport for rehabilitation operations has remained inconsistent, however, and influences the effectiveness of outreach endeavours:

But now we're not going to [clients] because of transport issues, and it's still a work in progress. I don't want to seem too pessimistic, but I think it could be much better because we always have this thought that if this was a doctor issue, it would have been sorted out maybe faster than our situation. (KI 8)

During the cessation of rehabilitation services, therapists changed their intervention approaches to ensure some level of continuity of rehabilitation to clients. Instituting home-based programs and advocating for the use of these programs were important measures ensuring that therapy continued without the risk of exposure to the virus. KI 9 explained his shift in approach:

That's a big thing that changed for me ... [it] was the importance of [ ] a home programme, something to continue at home and how to progress it yourself, and things like that. That's changed a lot now. Before, I think I was less invested in [home programmes], but now a lot more after the whole COVID thing.

Implementing the use of home programmes, however, reportedly affected some clients' future rehabilitation goals in cases where they did not return to hands-on rehabilitation due to their perception that home programs replaced the in-person service.

Despite reports of how the pandemic disrupted their provision of services, participants acknowledged how a reduced client load and less time spent in meetings allowed them to incorporate learning into their schedules. They had more opportunity for research to develop their clinical knowledge and skills, as explained by this participant:

During COVID we did sharpen up research tools. I think that's something that really improved my skill in that sense. And then, obviously, evidence-based practice, just bringing that in again, I feel sometimes we tend to get lost, especially with high patient load. You tend to not have the time to always go read up again. (KI 6)

Theme 3: Exacerbation of pre-pandemic rehabilitation shortfalls

Service cessations exacerbated the impact of limited and inadequate rehabilitation access for persons with disabilities, which was the reality even before the pandemic struck. Participants relayed, with great concern, related aspects in three categories: lack of timely intervention, changes in the type of disability and procurement of assistive devices.

Lack of timely intervention

Participants described the consequences of halting long-term rehabilitation to clients as catastrophic and leading to poor health and rehabilitation outcomes. Some adults with disabilities were reported to lose further independence, as well as diminished work capacity and function. A participant explained how the severity of disability was influenced for some of her clients:

So if you suffered your neurological impact in 2019 or 2020, you basically could not receive services. So these patients are so disabled where they could have probably be in a higher function if they received intervention. I mean, I have two patients I'm seeing at the moment that I'm struggling with the upper limb. We have seen patients that ... it could have been a simple operation taking place or just placed in a sling for the six weeks; a proper sling and coming to therapy and getting full range back within your upper limb, going back to work, now sits with a non-functioning arm where it could have been prevented completely. (KI 7)

Changes in the type of disability

Another participant relayed how a client had lost mobility due to an ankle injury because she received no rehabilitation during the COVID period. Children who stopped attending rehabilitation were mentioned in particular for the regressive impact this had on their abilities. A participant concluded that removing rehabilitation from health care 'creates disability' (KI 8) and that health systems cannot function without rehabilitation services.

Procurement of assistive devices

The prescription, assignment and training in the use of assistive devices to persons with disabilities in the public health system are impacted by lack of funding, long-winded tender processes, and substantial time lapses between assessment and fitting of devices. Participants reported that these barriers continued and even increased during the pandemic. A participant explained the impact felt by his clients:

There has been a delay in provision of wheelchairs ... and patients complain that they couldn't access rehab services for even changing old assistive devices as this was not seen as a life or death situation. (KI 9)

Another participant related poor availability and lack of access to assistive devices to rehabilitation's low status on the priority list of health services.

The findings show the challenges experienced by participants to re-engage clients with rehabilitation services after COVID-19 lockdowns. Practitioners had to re-educate clients about the importance of rehabilitation, as well as advocate for the essence of rehabilitation services to continue. They experienced various barriers to being able to offer services under emergent circumstances, and adapted the way they that they worked to enable continued access to clients with disabilities.

Discussion

This study reported the experiences of rehabilitation practitioners from a rural province in South Africa, in terms of service delivery to their clients with disabilities during the COVID-19 pandemic. The themes that emerged speak to common issues faced prior to the pandemic and exacerbated by the pandemic. For example, Louw et al[54] reported that rehabilitation remains positioned as non-integral and non-essential in South African health services – an issue that could be attributed to an inadequate understanding of rehabilitation and lack of effective implementation of rehabilitation-related policy[17]. At a systemic level, this study revealed a continued low priority of rehabilitation in health care, as evidenced by the lack of protocols to sustain rehabilitation services, staff shortages created by reassignment of rehabilitation practitioners to assist in COVID wards and the perceived disregard of practitioners' wellbeing under the emergent circumstances of the pandemic. The continued devaluation of rehabilitation may perpetuate and exacerbate barriers experienced by persons with disabilities including the unmet need for rehabilitation[55]. This is evidenced by the reported substantial decline in the (already limited) provision of assistive devices in the 2020–21 financial year[55]. Additionally, more barriers will be experienced when rehabilitation capacity is reduced. For example, under these working conditions, care may also be halted if practitioners get sick, hence their wellbeing is equally important.

Integrated service delivery, where health and rehabilitation professionals work collaboratively under emergent health circumstances, was highlighted as a measure that could promote sustained rehabilitation services during pandemics. Occupational therapists in the Gauteng Province of South Africa reported how

working in dependable multidisciplinary teams supported their ability to sustain rehabilitation services to clients during this time[41]. The distribution and availability of rehabilitation and health service teams in rural areas, however, impact access of such services to a greater extent than in urban areas[56] and most severely during pandemics, when these services are further deprioritised.

In this study, rehabilitation practitioners described their service responses to barriers created by pandemic regulations. Resisting service limitations imposed on them by managers or administrators, utilising emergency resources deployed during the pandemic (eg general workers), adapting their service delivery approaches, and devising alternative intervention methods (eg home programs) enabled them to continue with rehabilitation of some clients. Similarly, practitioners in another province relied on effective communication and collaboration with other professional teams to sustain services as well as to support their own wellbeing[41].

Practitioners also made use of outreach clinics and a shift to telerehabilitation as alternatives. It was a common occurrence during the pandemic for rehabilitation practitioners to adapt their mode of delivery to tele-rehabilitation, in order to access clients during the pandemic[44,57]. However, in the rural Eastern Cape, telerehabilitation is often not a viable alternative to in-person services due to the lack of technological infrastructure and applications that support connectivity, high-speed internet and connection costs relative to household income[43]. Even rehabilitation practitioners are often without access to these resources in selected rehabilitation units in the Eastern Cape.

The study, additionally, confirms how lack of rehabilitation during COVID-19 may have affected disability type, severity, prevalence and incidence in the rural communities of the province during and after the pandemic. Other studies have shown how disruption of rehabilitation services under lockdown circumstances influenced the incidence of new-onset psychiatric disorders[58], episodic disability experiences from living with long COVID[59], acute neurological complications from infection and prolonged immobilisation of persons in need of neurorehabilitation[60], and other secondary health issues emerging after lockdown lifts[61]. Access to rehabilitation may have had a mitigating effect on the emergence and exacerbation of disabling experiences during the pandemic, and played a contributory role in the prevention of COVID-related complications and consequences.

The potential compounding effects of pandemic circumstances and health access limitations for persons with disabilities from rural Eastern Cape were also reflected in the findings from this study. Rural persons with disabilities navigate inaccessible infrastructure, like roads and transport, higher costs of living and care due to increased health problems, and intangible barriers such as social stigma[62] when accessing rehabilitation services. Adding the navigation of inaccessible rehabilitation as preventive and promotive health service contributes further to the disadvantaging of this group. Disparities experienced by participants highlight how geographic location and infrastructure inequalities shape access to essential healthcare services.

Implications for policy and practice

The findings of the study hold implications for both the policy and rehabilitation practice environments:

- The position of rehabilitation should be strengthened in policy as essential health services with commensurate national protocols to sustain services during health emergencies. As such, rehabilitation services should also be integrated into national disaster and emergency management frameworks to prevent deprioritisation of rehabilitation in health crises.
- Policy should further support the sufficient allocation of funding for assistive devices, rehabilitation equipment and staff wellbeing.
- Policy frameworks should promote the integration of rehabilitation practitioners into multidisciplinary health teams to sustain services in rural areas during health crises.
- Rehabilitation practitioners should be trained in alternative service delivery models (eg telerehabilitation, home-based programs) and multidisciplinary collaboration.
- Healthcare managers' awareness of the importance of rehabilitation in the prevention of secondary health complications should be increased.
- Outreach programs in rural communities should be expanded to improve rehabilitation access that could be sustained under emergent health circumstances.
- Geographical barriers to rehabilitation should be reduced by advocacy towards improved rural transport infrastructure that supports access to rehabilitation services.

Limitations

The small sample size of the study limits the extent to which findings can be generalised to other rehabilitation practitioners and persons with disabilities. The qualitative study design and methods promote the transferability of this evidence to similar contexts prevalent in South Africa.

Conclusion

This study highlights the service challenges faced by rehabilitation practitioners in the rural Eastern Cape Province, South Africa, during the COVID-19 pandemic. It reveals systemic factors, such as the low prioritisation of rehabilitation as health service, which existed pre-pandemic and worsened during COVID-19.

Rehabilitation practitioners showed resilience through their responses to the imposed restrictions of the pandemic, by adapting their approaches and interventions to enable continuation of at least some of the services. Integrated service delivery emerged as a potential conduit to continuation of rehabilitation services during health emergencies.

The study points out the compounded difficulties faced by persons with disabilities in rural settings where resources and infrastructure are limited. It also underscores the often unmet rehabilitation needs of persons with disabilities in underserved rural areas, when rehabilitation is not accessible or sustained. Policy and operational frameworks should position rehabilitation as central and essential to health access of persons with disabilities, as well as preventive and promotive to health under emergent health circumstances.

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Conflicts of interest

The authors declare no conflicts of interest.

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