

“Access barriers to health services perceived by people with disabilities in Maputo-Mozambique”

Levy Pinto^{1,2*} & Crimildo Muhache³

¹ Department of Physical Medicine and Rehabilitation, Maputo Central Hospital, Mozambique; ² Faculty of Ethics and Human Sciences, São Tomás University of Mozambique, Maputo - Mozambique; ³ Save University – Maxixe, Inhambane – Mozambique.

Corresponding author: Levy Pinto, Department of Physical Medicine and Rehabilitation, Maputo Central Hospital, Mozambique, E-mail: levypinto901@gmail.com

Abstract

Background: Health care is a fundamental human right and central to the performance of health systems, however, access barriers remain one of the main challenges among people with disabilities.

Objective: This study sought to understand the barriers to accessing health services perceived by people with disabilities in Maputo-Mozambique.

Methods: This is a qualitative research, with semi-structured interviews carried out with 45 people with different types of disabilities, using thematic analysis as a methodological tool.

Results: There were several barriers perceived by the participants as barriers to accessing health services in Maputo and they differ according to the type of disability. For people with physical disabilities, the main barriers are physical accessibility (lack of ramps, handrails, inaccessible hospital equipment and inaccessible bathrooms) and financial issues. For people with sensory impairment (visual and auditory) they mostly point out communication problems. Attitudinal, informational and social issues were reported by most study participants.

Conclusion: People with disabilities face several barriers with regard to accessing health care, thus increasing the health disparities between this group of people and the general population. The removal of these barriers is crucial to improving opportunities for people with disabilities to access health services in Maputo City and Province.

Keywords: *Barriers; Health services; Disability; Access; Mozambique.*

BACKGROUND

Persons with disabilities (PwD's) are those individuals who have physical, mental, intellectual or sensory impairments, which, in interactions with various barriers, may obstruct their full and effective participation in society with other people [1]. PwD's constitute the largest minority group in the world and 80% live in low-and-middle-income countries, where disability disproportionately affects disadvantaged populations. Furthermore, there are 93 million children with disabilities worldwide [2]. In the case of Mozambique, data from the 2017 General Population and Housing Census reveal a disability prevalence of 2.6% among Mozambicans [3].

Worldwide, PwD's have worse health prospects, lower levels of education, lower economic participation and higher poverty rates compared to non-disabled people. In part, this is due to the fact that PwD's face barriers in accessing services that people without disabilities take for granted for a long time, such as health, education, employment, transport and information. Such difficulties are exacerbated in the poorest communities [2; 4; 5].

According to McIntyre et al. [6], health inequalities are a central theme of discussions involving public policies in several nations around the world. Inequalities in access to health services are deeply linked to national and international political scenarios, social and economic policies and phenomena such as globalization and economic growth. For Levesque et al. [7] and Russel et al. [8], access to health services is the ease with which people with disabilities can seek and obtain health services when needed. Disability has increasingly come to be seen as a human rights issue following the entry into force of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) [2].

It is in this perspective that access to primary health care (PHC) is a fundamental and central human right in the performance of health systems. Despite constituting a fundamental human right, PwD's generally face greater barriers in accessing PHC than the general population. These problems are further exacerbated in rural areas [9]. Access to healthcare is more difficult in rural areas than in urban areas, and access difficulties are exacerbated for people with disabilities who live in poverty in rural settings [10].

Despite health care being a human right, access barriers remain one of the main challenges among PwD's. One of several reasons for this is that there is little evidence on barriers to accessing healthcare among PwD's [11].

Therefore, the justification for carrying out the present study was based on the scarcity of specific information about the barriers faced by PwD's in accessing health services in Mozambique, and considering that this information is essential for the development of effective interventions that contribute to improving the quality of life of this group of people, being a new, important and interesting study. Its relevance is centered on contributing to the definition of adequate strategies (based on evidence) for the formulation of plans and public policies to be adopted by official entities, researchers, health professionals, advocates and volunteers involved with the issue of disability with a vision of a world of inclusion and contribute to everyone being able to live a life of health, comfort and dignity.

In view of the above, the objective of this study is to identify the barriers to accessing health services perceived by PwD's in Maputo.

METHODOLOGY

We carried out a cross-sectional study of an exploratory and descriptive nature through semi-structured interviews. The treatment and interpretation of data were carried out based on thematic analysis. The study involved 45 people with different types of disability residing in Maputo city and province, and frequenting various health facilities in Maputo city and province. Participants were selected for convenience. For the inclusion criteria applied: aged 18 years or over; have a

physical, sensory, or both disability; people living with the disability for more than a year and who agreed to sign the informed consent form. Data collection took place in November and December 2022.

The data collection instrument consisted of two parts: the first consisting of socio-demographic information with characterization data of the subjects and identification variables; the second and last one related to a questionnaire on the barriers to accessing health services related to disability.

Each interview lasted an average of 30 minutes and the responses were recorded in an interview script. After a thorough reading of the interview scripts, the speeches of the participants in the study were subjected to thematic analysis. To preserve the integrity of the interviewees, anonymity was chosen, through the codification of the interviewees. The letter I followed by a number was used to identify the participants' statements. We respect all ethical aspects throughout the study and the protocol was approved by the Institutional Committee on Bioethics in Health of the Faculty of Medicine/Maputo Central Hospital (CIBS FM & HCM) under the number CIBSFM & HCM/062/2022.

In this article, the term "health services" will be used to refer to hospitals (central, general and provincial) and primary health care centers. The term rehabilitation services refers to facilities that provide physical therapy, occupational therapy, and speech therapy services.

RESULTS

Characterization of study participants

Table 1 shows the characteristics of the 45 people with different types of disabilities who were interviewed for this study, stratified by gender. Although generalizations were not made, comparing the two genders, the predominant age group was between 35-44 years old with 30.8% for males and 36.8 for females, mostly single (50% for males and 47.4% for females) and with formal employment (male: 33.3% and female: 28.6%). On the other hand, only 15.8% of females had no level of education compared to 19.2% of male and 71.4% of female were engaged in small businesses compared to 66.7% of male. Of the total number of males, 57.7% claimed to belong to an association for people with disabilities compared to 42.1% of females. From the analysis carried out on the type of disability, for both groups it was found that the majority of individuals had sensory disabilities compared to physical and multiple disabilities with 57.7% for males and 68.3% for females.

Table 1. Characteristics of study participants

Characteristic	Male		Female	
	n = 26	58 %	n = 19	42 %
Age group				
18-24	3	11.5	2	10.5
25-34	7	26.9	5	26.3
35-44	8	30.8	7	36.8
45-54	6	23	4	21
55+	2	7.7	1	5.3

Marital status				
Single	13	50	9	47.4
Married	5	19.2	4	21
Just living together	8	30.8	6	31.6
Level of education				
No education	5	19.2	3	15.8
Primary	10	38.5	8	42.1
Secondary	5	19.2	5	26.3
Graduation	6	23.1	3	15.8
Currently employed				
Yes	15	57.7	7	36.8
No	11	42.3	12	63.2
Type of employed				
Informal employment (Small business)	10	66.7	5	71.4
Formal employment	5	33.3	2	28.6
Membership to association				
Yes	15	57.7	8	42.1
No	11	42.3	11	57.9
Type of disability				
Visual impairment	7	26.9	5	26.3
Hearing impairment	6	23.1	7	36.8
Speech impairment	2	7.7	1	5.26
Physical impairment	9	34.6	6	31.57
Multiple impairment	2	7.7	0	0

Barriers perceived by PwD's in accessing health services

Table 2 shows the types of barriers experienced by PwD's in accessing health services (whether primary, secondary, tertiary, quaternary, including rehabilitation services) stratified by gender.

As main barriers that PwD's face when trying to access health services in Maputo City and Province, elements such as the attitude considered negative by health professionals, structural obstacles in any natural or artificial environment, financial barriers and long distances to find a health facility. Other barriers presented include lack of information, difficulties in communicating with health professionals, long queues, in addition to the lack of material and/or medication. Often, more than one type of barrier occurs simultaneously.

Looking at both genders, it should be noted that for both genders, attitudinal barriers were the main barriers reported. For females, financial and physical barriers followed with 57.9% and 52.6% respectively. While for males, physical and social barriers followed with 57.7% and 50% respectively.

Therefore, the thematic analysis identified seven main factors acting as barriers to accessing health services perceived by PwD's in Maputo City and Province: attitudinal barrier, physical barrier, informational barrier, communication barrier, financial barrier, organizational or structural barrier and social barrier (Table 2).

Attitudinal barrier

As shown in table 2, the negative attitude on the part of health professionals was the main barrier reported by the study participants for both males and females with disabilities when trying to access health services at all levels. This is often compounded by behaviors, perceptions, assumptions and beliefs that discriminate against people with disabilities as reported below:

(...) it's like a person with a disability cannot date, marry, get pregnant, have children in any way. When asked about these issues they completely ignore you as if I had asked something from another world and sometimes they are rude to us...(I-02, 29 years old, female, physical impairment-paraplegia);

(...) I realize that there is still some prejudice, when they realize or the person says they have a disability they get kind of bothered...(I-12, 34 years old, male, visual impairment)

(...) I have speech problems and the health professionals assume that I can't understand that's why they don't offer me a proper consultation, without explaining anything about the disease, they just give me pills and I stopped going to the health center... (I-45, 45 years old, male, speech impairment);

(...) I attended the physiotherapy services, at the beginning there was a therapist who was always with me but there came a time when they told me to do it alone and then I abandoned it because nobody looked at me as someone who needed help...(I-3, 43 years old, male, physical impairment-paraplegia);

(...) we are ignored when we go to the health units, when we arrive they ignore us... there should be someone to help us...(I-16, 54 years old, female, multiple impairment)

Some PwD's reported that some professionals are tough, rude and yell at them.

(...) I went to the health unit because I was pregnant and the nurse screamed and was rude to me saying why I got pregnant when I was dependent on a wheelchair... (I-32, 33 years old, female, physical impairment-paraplegia).

Physical Barriers

Physical barriers are related to structural obstacles in any natural or artificial environment related to the design of the health unit or medical equipment, these constitute the second most important barrier reported by the study participants with regard to access to health services.

Access ramps for wheelchair users, handrails for people with walking difficulties, high marquees, slippery floors and poor signaling and/or lighting were some of the factors reported by the PwD's as being some of the obstacles to accessing health services as denoted by the following reports:

(...) not every building is accessible for us who use a wheelchair, there are places with stairs that we do not pass unless someone comes to carry us, the bathroom does not enter a wheelchair...(I-23, 45 years old, male, physical impairment-paraplegia)

(...) when I go to the hospital to go up on the table to be observed, there is a lot of exercise for me there and it is very uncomfortable, the table is very high...(I-11, 41 years old, female, physical impairment-paraplegia)

(...) I have already slipped because the floor is slippery and I have difficulty walking with a lack of balance I fell...and there is no handrail...(I-44, 35 years old, male, physical impairment-tetraplegia)

(...) for those of us who have vision problems or low vision, the signage and lighting are poor and make the environment unsafe for us to walk easily inside the health unit...(I-7, 54 anos, female, visual impairment).

(...) most of the streets on the outskirts to access the health centers the terrain is sandy and does not allow for easy movement of our wheelchairs... (I-5, 34 years old, male, physical impairment-paraplegia)

(...) the bathroom does not allow access for a person in a wheelchair, when I go to the hospital I stay almost all day, it is very difficult for us...(I-9, 24 years old, female, physical impairment-paraplegia)

Communication barrier

This is a type of barrier experienced by people with impairments that affect hearing, speaking and reading. The difficulty in communication makes people insecure and not confident in the medication and/or guidance given by the provider. For this group of people, especially those with hearing impairment, communication with health professionals has been very difficult. There are no interpreters for sign language. Sometimes healthcare professionals become impatient when they are challenged to communicate with hearing-impaired patients. Although in some cases the presence of a sign language interpreter in consultations is necessary, this violates the privacy and confidentiality of the patient, as shown in the interviewees reports below:

(...) going to a doctor's appointment is a challenge for me, there is no sign language interpreter and I'm never satisfied when I go alone...and when I go with my sister to interpret I don't say everything because there are personal things... (I-30, 41 years old, female, hearing impairment).

(...) I get nervous, impatient and the health staff too because I try to explain and I can't, they also don't understand anything and I end up not going to the health unit... (I-33, 45 years old, female, speech impairment).

One of the interviewees, who has hearing loss, ended up referring to the solution provided by the health services that improved his communication with health professionals:

(...) with the hearing aid, my communication with the health staff improved, which was very bad and I didn't go to the health unit...(I-40, 23 years old, male, hearing impairment)

Informational barriers.

This type of barriers is more reported by people with sensory disabilities (visually impaired) and women with physical disabilities partly because we don't have alternative means of communication in health units and on the other hand because looking at this group of people and we think they don't need information mainly linked to sexual and reproductive health assuming that to be a person with a disability is to be asexual as per the reports below:

(...) I went to see a doctor at the health unit in my area, I have a visual impairment and the professional gave me a pamphlet without a braille version...(I-35, 39 years old, male, visual impairment)

(...) I went to an appointment at the health center and the nurse didn't offer me pills, assuming I'm sexually inactive and didn't need them...(I-31, 32 years old, female, physical impairment-paraplegia)

Financial barrier

This barrier is more closely linked to the poverty that affects most PwD's, being directly associated with the cost of transport to access health services, especially specialized health services including rehabilitation services. This barrier was mainly reported by people with physical disabilities who use wheelchairs, living in Maputo Province and using public transport to travel to health facilities.

(...) I have a pressure ulcer, I need a graft, I have already failed three times for not getting money for transport, and it is very expensive to go to the hospital, I have to pay myself and my chair...(I-8, 34 years old, male, physical impairment-paraplegia)

(...) I went to the rehabilitation consultation, I live far from the nearest health unit with rehabilitation services, I need to do physiotherapy three times a week I can't because of lack of money for transport...(I-27, 23 years old, female, physical impairment- lower limb amputation).

(...) when I lived in the city I had no transport difficulties because I could go to the hospital on my own, now that I am far away the transport issue makes it difficult for me to carry out my physiotherapy sessions...(I-6, 67 years old, male, physical impairment-paraplegia)

Organizational or structural barrier

This type of barrier is related to the organizational structure of health units. The field research revealed that the barriers related to the organizational structure are related to the long queues faced by patients, health professionals without experience and/or knowledge in dealing with PwD's, in addition to the lack of medicines and/or material. Long queues tend to discourage PwD's from accessing health services, although this also applies to people without disabilities, as shown in the statements below:

(...) although people with disabilities have priority, this principle is not always observed, we spend hours and hours in line... (I-21, 42 years old, female, physical impairment-paraplegia)

(...) The health unit in my area of residence never has material for the dressing, I get there they say I'm late, I can't make the dressing anymore and I started to make the dressing at home... and they prescribe medications that are never available in the hospital, such as lubricating gel, baclofen, etc...(I-13, 25 years old, female, physical impairment-paraplegia)

(...) not all professionals know how to meet the needs of people with disabilities, they need to be trained to provide care in a more humane way...(I-43, 56 years old, female, visual impairment)

(...) I think that some health professionals do not realize that we are human beings just like everyone else and cannot distinguish when a problem is directly related to disability and which is not...(I-1, 56 years old, female, physical impairment-paraplegia)

Social Barrier

The biggest social barrier pointed out relates to the distances that some patients must travel to access some health services considered specialized. According to the reports of the study participants, most of the participants do not have difficulties in terms of distance to access primary health care, but the major barrier in Maputo city and province was when they needed specialized health care and rehabilitation, facing long distances to have access to these health services reaching 15 to 20 km.

(...) because of my physical condition I can't walk, I use a wheelchair, public transport is scarce around here (Kobe neighborhood) and the hospital is very far from my house (12 km), I have an appointment to do, I haven't been able to go there yet...(I-28, 56 years old, female, physical impairment-paraplegia)

(...) I have trouble seeing, I can't go to the health unit alone, I can't take public transport alone, it's hard for me...(I-19, 63 years old, male, visual impairment)

(...) I am undergoing radiotherapy and chemotherapy and the only health unit that provides this treatment is the Maputo Central Hospital, which is 17 km from my house...(I-12, 46 years old, female, multiple impairment)

Table 2: Types of barriers perceived by participants*

Types of barriers	Masculine		Feminine	
	n= 26	%	n= 19	%
Attitudinal barriers	17	65.4	15	78.9
Physical barriers	15	57.7	10	52.6
Informational barriers	5	19.2	6	31.6
Communication barrier	8	30.8	6	31.6
Financial barrier	13	50	11	57.9
Organizational or structural barrier	11	42.3	6	31.6
Social barrier	13	50	10	52.6

*Most participants reported more than one access barrier.

DISCUSSION

The study showed that PwD's in Maputo City and Province face several obstacles in accessing health services related to infrastructural, economic and social factors. Study participants reported the existence of attitudinal, physical, communication, financial, organizational, informational and social barriers that condition access to health services in the field of study.

The study made it possible to understand that, in addition to being multiple and complex, the barriers faced by PwD's differ according to the disability that the person has, and there are cases in which several barriers act simultaneously. Furthermore, these barriers inhibit PwD's ability to live a dignified life and fulfill their human rights, including attending school [2; 4; 5; 12; 13].

For the research target group (physical impairment) the main barriers were identified as physical accessibility (lack of ramps, handrails, inaccessible hospital equipment and inaccessible bathrooms) and financial barriers. As for people with sensory impairment, the majority referred to communication problems. Attitudinal, informational, organizational and social issues were reported by most of the PwD's, as advocated by other consulted authors [12; 14].

This research largely confirms research in other countries that shows that people living with disabilities have a whole series of barriers related both to the services provided as well as to the environment, infrastructure and social [15; 16; 17; 18; 19; 20; 21].

Most of the respondents in the study, that is, a significant part of the research sample, consisted of unemployed individuals and some involved in small informal low-income businesses, insufficient to sustain their livelihoods as well as to pay the cost of transport to access to health services, coinciding with a study carried out in Namibia [15].

Participants residing in Maputo Province, especially in suburban neighborhoods, indicated that there were greater obstacles to accessing health services compared to residents of Maputo city, a finding that is in line with Vergunst et al., [10] and Dassah et al., [9], when they refer that access to health is more difficult in rural areas than in urban areas, and that difficulties in accessing health services are exacerbated for people with disabilities who live in poverty in rural contexts.

With regard to attitudinal barriers, the results of the study revealed that PwD's access to health services in Maputo was limited by behaviors, perceptions, assumptions and beliefs that discriminate PwD's. This is also evident in the literature consulted. [21; 22; 23; 24; 25]

As can be seen from the reports cited in this study, there is a lack of structure in the care of people with disabilities, and this starts at the entrance to the health units, translating into attitudinal barriers, which contribute to greater isolation or withdrawal from social life. This reality has been translated and reflected in the way people have been treated in health units, including the use of abusive language by some health service providers at the level of health units referenced by respondents.

Therefore, attitudinal barriers are not always intentional or perceived by those who practice them, and the biggest problem with this type of barriers is related to their permanence, as they are not removed as soon as they are detected.

Political marginalization, discrimination and unequal access to health services are experienced by people with disabilities, resulting in worse health outcomes [19]. Issues such as lack of access ramps, handrails, accessible bathrooms, lack of adjustable beds, lack of signage and/or adequate lighting were some of the factors reported by PwD's as being some of the physical obstacles to accessing health services. According to Rooy et al., [15] these aspects are very important as they have contributed to PwD's feeling discouraged from visiting hospitals, thus defeating the goal of equal access to health services. These data coincide with the results achieved in other studies carried out in the region and in the world [22; 23; 24].

It is necessary to remember that there is a permanent imperative to strengthen policies that aim to reduce barriers in the physical environment and incorporate universal design principles to the benefit of all users [26]. The physical barriers revealed in this study partly reflect marginalization in planning with a view to inclusion at all levels and the existence of several challenges when it comes to accessible environments within health units. The survey data contrast with the United Nations Convention for Persons with Disabilities in which disability is increasingly considered a human rights issue and access to health is a fundamental human right and central to the performance of health systems [2].

The lack of information was also reported in studies on barriers to accessing health services as one of the barriers to accessing health services and that this has been shown to be more exacerbated in rural areas [18]. The communication barriers faced by PwD's that affect hearing, speech and reading identified in the present study were also found in studies carried out by authors such as Badru et al., [11] and Munthali et al., [21].

Some hearing-impaired participants reported that the headset significantly helped them in dealing with communication barriers. The Mozambican government together with cooperation partners have offered assistance devices or means of compensation such as hearing aids, canes, wheelchairs and crutches to PwD's, but unfortunately many of those in need have not had access.

The lack of financial conditions to access health services is related to the cost of transport and not necessarily with the direct cost of accessing health services. This finding is consistent with a study conducted in Malawi [4], but it contrasts with several other studies carried out that find as direct barriers in accessing health services the lack of financial conditions to pay for medicines and services [25; 21; 15; 16; 9; 2; 9; 15; 16; 21; 25].

Issues such as long waiting lines at health units, health professionals without experience and/or knowledge in dealing with PwD's and lack of medication and/or material are the organizational barriers most found in the present study. These data corroborate what other authors have found as barriers to accessing health care [4; 16]. Therefore, the lack of experience or knowledge on the part of some health professionals makes some PwD's frequently report that their needs are not understood or that if they are, they are treated as patients without priority [27]. From the analysis carried out based on field data, it can be seen that providing quality health services to PwD's involves a provider's ability to not only know how and when to treat disability-related health problems, but also to know when it is that a health problem is not related to disability [28].

With regard to social barriers, the results of the study do not differ from those found in other studies in which the distances to travel to health units and dependence on third parties were considered as obstacles to accessing health services [4; 15; 21]. In the specific case of the reality under study, the barrier of geographic distance is aggravated by transport problems. Maputo City and Province have serious public transport and accessibility problems. This problem affects PwD's on a large scale and, in particular, people with physical disabilities who depend on wheelchairs to get around.

In the present study, the issue of transport and long distances to travel to access health services, especially for PwD's residing in Maputo Province who need specialized health services and rehabilitation services, were reported more frequently. This finding is in line with the results of research carried out by Drainoni et al., [25] stating that “people with disabilities face multiple barriers to obtaining health care, and these barriers seem to be deeper for some types of medical care than for others”.

In general, it can be said that all barriers contribute to negative health outcomes and increase the disparity with regard to access and health care between PwD's and the general population [29]. It is necessary to bear in mind what is prescribed by several authors when they argue that being a person with a disability is not just about medical issues, but, even more importantly, about social issues and inclusion [30].

STRENGTHS AND LIMITATIONS

To the authors' knowledge, this is the only study so far in Maputo-Mozambique that deals with the barriers to accessing health services faced by PwD's and responds to international calls regarding the search for concise information on the barriers with regard to access to health services faced by PwD's and thus contributes with new evidence for the smallest minority group. However, some limitations of the study were found. Its qualitative nature does not allow the results to be generalized to a larger population. The non-inclusion of other types of disability (mental health and intellectual impairment) was also one of the limitations of the research.

IMPLICATIONS

The results of this study provided an overview of the main barriers to accessing healthcare perceived by PwD's in Maputo City and Province that can contribute to the elaboration of a multisectoral plan for their removal, being this crucial to improve the opportunities that PwD's may have access to health services in Maputo City and Maputo Province.

The results of the present study can also serve as a basis for future quantitative studies with larger samples, evaluating the relationship that can be established between the different barriers and access to health care by PwD's. It is important that the present study be replicated and disseminated both at rural and urban levels, taking into account the differences between the two environments. The present study can also be replicated in people with other types of disability, thus expanding its scope.

CONCLUSION

Based on the results of the study, it is evident that there are several barriers perceived by PwD's in accessing health services, ranging from commuting to health services, including transportation, through physical access and care, to communication with health professionals, often infringing the precepts of accessibility and significantly interfering in the quality of health care for these people. The barriers encountered and faced by PwD's are multiple and complex and some of them have acted simultaneously.

The data are worrying, as they reveal that a part of the population, which may have greater health needs, faces growing barriers in accessing health services. These findings call for the need to sensitize health care providers towards more humane care and for health authorities to consider the unique issues that affect PwD's access to health care.

Removing barriers is crucial to improving opportunities for PwD's to access health services in Maputo City and Maputo Province, requiring the implementation of policies to ensure that buildings and outdoor spaces are accessible to PwD's. It is necessary to develop actions aimed at training in subjects that deal with disability for professionals in the health sector. It is also pertinent to design and implement an inclusive curriculum with issues about disability and constant training in alternative methods of communication (sign language, reading and writing in Braille, among others).

COMPETING INTERESTS

The authors declare that they have no competing interests.

AUTHORS' CONTRIBUTIONS

LP was the principle investigator of this study and involved in the original protocol design. CM involved in original protocol design, and LP developed the semi-structured interview guide.

The interviews were conducted by LP and 5 inquirers. Interview transcriptions, subsequent analysis and development of this manuscript were performed by LP. Both authors approved this final manuscript.

FUNDING

The authors did not receive any financial assistance in support of the study.

ACKNOWLEDGMENTS

We sincerely thank the study participants who shared their perceptions with us and gave us their consent to publish this work.

REFERENCES

1. United Nations. 2006. Convention on the Rights of Persons with Disabilities and Optional Protocol. In U. Nations (Ed.). New York: United Nations.
2. World Health Organization. 2011. World Report on Disability: World Health Organization and World Bank, Geneva, Switzerland.

3. Instituto Nacional de Estatística. 2017. Censo Geral da População e Habitação.
4. HARRISON, J.; THOMSON, R.; BANDA, H.; MBERA, G.; GREGORIUS, S.; STENBERG, B. & MARSHALL, T. 2020. Access to health care for people with disabilities in rural Malawi: what are the barriers? *BMC Public Health* 20:833.
5. RIMMER, J.; RILEY, B.; WANG, E.; RAUWORTH, A., & JURKOWSKI, J. 2004. Physical activity participation among people with disabilities: barriers and facilitators. *American journal of preventive medicine*, 26(5), 419-425.
6. MCINTYRE, D.; MOONEY, G. eds. *The economics of health equity*. New York: Cambridge University; 2007.
7. LEVESQUE, J.; HARRIS, M. & RUSSEL, G. 2013. Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *Int J Equity Heal.* 12(1):18.
8. RUSSEL, D.; HUMPHREYS, J.; WARD, B.; CHISHOLM, M.; BUYKX, P.; MCGRAIL, M. et al. 2013. Helping policy-makers address rural health access problems. *Aust J Rural Health.* 21(2):61–71.
9. DASSAH, E.; ALDERSEY, H.; McCOLL, M. & DAVISON, C. 2018. Factors affecting access to primary health care services for persons with disabilities in rural areas: a "best-fit" framework synthesis. *Glob Health Res Policy.* 25;3:36.
10. VERGUNST, R.; SWARTZ, L.; MJI, G.; MACLACHLAN, M. & MANNAN, H. 2015. You must carry your wheelchair' barriers to accessing healthcare in a South African rural area. *Global Health Action.*
11. BADU, E.; AGYEI-BAFFOUR, P & OPOKU, M. 2016. Access Barriers to health care among People with Disabilities in the Kumasi Metropolis of Ghana. *CJDS* 5.2.
12. WILBUR, J., KAYASTHA, S., MAHON, T. et al. Qualitative study exploring the barriers to menstrual hygiene management faced by adolescents and young people with a disability, and their carers in the Kavrepalanchok district, Nepal. *BMC Public Health* 21, 476 (2021).
13. MACLACHLAN, M.; AMIN, M.; MANNAN, H.; EL TAYEB, S.; BEDRI, N.; SWARTZ, L. et al. 2012. Inclusion and human rights in African health policies: using EquiFrame for comparative and benchmarking analysis of 51 policies from Malawi, Sudan, South Africa & Namibia. *PLoS One* 2012; 7: e35864.
14. AHUMUZA, S.; MATOVU, J.; DDAMULIRA, J. AND MUHANGUZI, F. 2014. Challenges in accessing sexual and reproductive health services by people with physical disabilities in Kampala, Uganda. *Reproductive health* 2014, 11:59.
15. VAN ROOY, G.; AMADHILA, E.; MUFENE, P.; SWARTZ, L.; MANNAN, H. & MACLACHLAN, M. 2012. Perceived barriers to accessing health services among people with disabilities in rural northern Namibia, *Disability & Society.*

16. SAKELLARIOU, D. & ROTAROU, E. 2017. Access to healthcare for men and women with disabilities in the UK: secondary analysis of crosssectional data. *BMJ Open* 2017;7:e016614. doi:10.1136/bmjopen-2017-016614.
17. PETERS, D.; GARG, A.; BLOOM, G.; WALKER, D.; BRIEGER, W.; HAFIZUR, RAHMAN, M. 2008. Poverty and access to health care in developing countries. *Annals of the New York Academy of Sciences*, 1136(1), 161-171.
18. NEILLE, J. & PENN, C. 2015. Beyond physical access: a qualitative analysis into the barriers to policy implementation and service provision experienced by persons with disabilities living. *Rural Remote Health*. 15:3332.
19. MULUMBA, M.; NANTABA, J.; BROLAN, C.; RUANO, A. & BROOKER, K. Hammonds R. Perceptions and experiences of access to public healthcare by people with disabilities and older people in Uganda. *Int J Equity Health*. 2014;13:76.
20. MUGILWA, L.; WASALA, W.; & OYUGI, L. 2005. Health care service utilization in Kenya. Colombo, Sri Lanka: Poverty and Economic Policy (PEP) Research Network's Poverty Monitoring, Measurement and Analysis (PMMA).
21. MUNTHALI, A.; MANNAN, H.; MACLACHLAN, M.; SWARTZ, L.; CHILIMAMPUNGA, C. & CECILIA, M. 2017. "This one will delay us": barriers to accessing health care services among persons with disabilities in Malawi, *Disability and Rehabilitation*.
22. STORY, M.; SCWIER, E. & KAILES, J. 2009. Perspectives of patients with disabilities on the accessibility of medical equipment: Examination tables, imaging equipment, medical chairs, and weight scales. *Disability and Health Journal*, 2(4), 169-179. e161.
23. KROLL, T.; JONES, G.; KEHN, M., & NERI, M. (2006). Barriers and strategies affecting the utilisation of primary preventive services for people with physical disabilities: a qualitative inquiry. *Health & social care in the community*, 14(4), 284-293.
24. SHAH, S. & ROBINSON, I. 2007. Benefits of and barriers to involving users in medical device technology development and evaluation. *International journal of technology assessment in health care*, 23(01), 131-137.
25. DRAINONI, M.; LEE-HOOD, E.; TOBIAS, C.; BACHMAN, S.; ANDREW, J. & MAISELS, L. (2006). Cross-disability experiences of barriers to health-care access consumer perspectives. *Journal of Disability Policy Studies*, 17(2), 101-115.
26. SHERLAW, W.; LUCAS, B.; JOURDAIN, A. et al. (2014A) Disable people, inclusion and policy: better outcomes through a public health approach? *Disability and Society* 29(3):444-459
27. GIBSON, J. & O'CONNOR, R. 2010. Access to health care for disabled people: a systematic review. *Social Care and Neurodisability*. 1:21-31.
28. SCHEER, J.; KROLL, T.; NERI, M. & BEATTY, P. 2003. Access Barriers for Persons with Disabilities: The Consumer's Perspective. *Journal of Disability Policy Studies*. 2003;13(4):221-230.

29. MOODLEY, J. & ROSS, E. 2015. Inequities in health outcomes and access to health care in South Africa: a comparison between persons with and without disabilities. *Disabil Soc.* 30(4):630–44.
30. Vergunst, R., Swartz, L., Hem, KG et al. (2017) Access to health care for persons with disabilities in rural South Africa. *BMC Health Serv Res* 17, 741 (2017).