Experiences of attitudes in Sierra Leone from the perspective of people with poliomyelitis and amputations using orthotics and prosthetics

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ABSTRACT

Purpose: The aim of this study was to describe experiences of attitudes in the society of Sierra Leone from the perspective of individuals with poliomyelitis and people with amputations using orthotic or prosthetic devices.

Methods: Individual interviews were conducted using open-ended questions. Twelve participants with amputations or polio were included. Content analysis was applied to the data.

Results: The following six themes emerged during data analysis: Experience of negative attitudes; Neglected and respected by family; Traditional beliefs; The importance of assistive devices; People with disability struggle with poverty; and The need for governmental and international support.

Conclusions: In Sierra Leone, people with disabilities face severe discrimination. They need to be included, recognized, and supported to a greater extent by the society, the community, and the family, as well as by the government and international organizations. Traditional beliefs have a negative impact on people with physical disabilities and are an important cause of discrimination in Sierra Leone. Prosthetic and orthotic devices are vital for people with physical disability and offer increased dignity. Prosthetic and orthotic services need to be accessible and affordable. Poverty affects access to education, employment, and health care for Sierra Leoneans with physical disabilities, forcing them to resort to begging to cover basic living needs.

IMPLICATIONS FOR REHABILITATION

- In Sierra Leone, traditional beliefs related to disability and public attitudes need to change in order to protect the human rights of people with disabilities.
- Increased public awareness of disability and implementation of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) at different levels in society is needed.
- To increase access to prosthetic and orthotic services in Sierra Leone, these services need to be affordable and related costs, such as transport, need to be covered by support.
- Increased access to education, employment, and financial support could contribute to an improved standard of living for people with physical disabilities.
- Governmental and international support is needed to decrease attitudinal and environmental barriers for people with disabilities in Sierra Leone.

Introduction

Sierra Leone is one of the poorest countries in the world, with 73% of the population living in multi-dimensional poverty.[1] In general, women in Sierra Leone are poorer than men.[2] Life expectancy is 46 years.[1] English is the national language even though Krio and other native languages are more commonly spoken.[3]

A long and cruel civil war, marked by methods such as machete amputations of civilians,[4,5] ravaged Sierra Leone for a decade, from 1991 to 2002.[4] After the war, individuals with amputations were placed in camps to receive medical treatment and rehabilitation services with help from non-governmental organizations.[5] Many of the victims of the war suffered from post-traumatic shock and depression and struggled to manage daily life activities. Today still, people with amputations are a reminder of the war and trigger difficult memories and emotions for people without disability.[5] Moreover, the progress of eradicating poliomyelitis (polio) was hindered during the war and impairments of limbs resulting from the disease are common.[6] Many Sierra Leoneans believe that polio and amputations are caused by witchcraft.[5,7]

Poverty and disability are closely interlinked: disability may both be caused by and result in poverty.[8,9] People without disability are more likely to be employed than are those with severe disability.[10] Being poor and having decreased access to health care may cause disability. People with disabilities consequently feel categorized and excluded from society. People with amputations commonly prefer to live among others with disability.[11] They have been reported to express the feeling that the society would not help them manage their daily activities.[8]

Sierra Leone signed the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in 2007 and ratified it in 2010.[12] Despite this policy move to include this marginalized population, many people with disabilities continue to face barriers in accessing basic human rights.

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population, people’s attitudes and relationships have been identified as barriers to participation in society for Sierra Leoneans with disabilities.[11] The barriers are greater in rural areas compared with urban areas.[13]

People with impairments caused by polio are orthotics users and people with amputations are prosthetics users. In this paper the term “assistive device” refers to a lower-limb orthotic or lower-limb prosthetic device.[14] Regarding medical costs, most Sierra Leoneans cannot afford medical services.[15,16] It has been proposed that prosthetic and orthotic services be lifelong, and free, for patients in Sierra Leone.[17]

More research concerning participation and inclusion of people with disabilities using orthotic and prosthetic devices in low-income countries is, furthermore, needed.[18] A previous study from Sierra Leone reports the local prosthetics and orthotics staff’s perspective of the prosthetic and orthotic services. It reports that the attitudes towards people with disability and traditional beliefs affect the delivery of rehabilitation services.[7] Therefore, it is of interest to further investigate the attitudes of the Sierra Leonean society. The aim of this study was to explore experiences of attitudes in the society of Sierra Leone from the perspective of people with polio or amputations using orthotic and prosthetic devices.

**Methods**

**Design**

A qualitative cross-sectional study with individual interviews was conducted using open-ended questions. Content analysis was applied to the data.

**Setting and sampling**

At the time of the study, four rehabilitation centres were available and running in Sierra Leone: the National Rehabilitation Centre of the Ministry of Health and Sanitation in Freetown; the Governmental Hospital Rehabilitation Unit, also run by the Ministry of Health and Sanitation, in Koidu; Bo Regional Rehabilitation Centre, in Bo; and the Prosthetic Outreach Foundation in Makeni, all included in the study together with a former rehabilitation centre, Mercy Ships New Steps, in Waterloo. Directly after the war, assistive devices were provided free of charge to patients at all the rehabilitation centres. Assistive devices were still offered free in Koidu at the study start, but in Freetown, Bo, and Makeni, patients had to pay for their assistive devices and an additional registration fee of 5000–10,000 Leones (4300 Leones were about US$1) was charged. In Makeni, a price list was issued to patients; price lists were not available to patients in Freetown and Bo. All rehabilitation centres produced prosthetics and orthotics and provided physiotherapy.

Participants included in the study were 18 years and above, with a polio diagnosis or amputation, who had received lower-limb assistive devices from any of the four running or the former rehabilitation centre in Sierra Leone. A previous study [19] indicated that polio patients and people with amputations were the two major groups of adults receiving prosthetic and orthotic services in Sierra Leone. Participants were recruited with assistance from the four rehabilitation centres and the international organization Handicap International Sierra Leone. Participants of both genders, from both urban and rural areas and with a range of diagnoses, ethnic background, and religions were included to obtain variation.

| Table 1. Participants’ demographics, characteristics, and type of disability (n = 12). |
|-------------------------------------------------|
| Type of disability                                      | All participants, n (%) |
| Polio                                              | 6 (50) |
| Amputation                                         | 6 (50) |
| Cause of amputation                                 |        |
| Violence in war                                     | 4 (33) |
| Snake bite                                         | 1 (8)  |
| Osteomyelitis                                      | 1 (8)  |
| Region of residence                                 |        |
| Freetown area                                      | 2 (17) |
| Makeni area                                        | 3 (25) |
| Koidu area                                         | 4 (33) |
| Bo area                                            | 2 (17) |
| Sandor Chiefdom                                    | 1 (8)  |
| Rural/urban area                                   |        |
| Rural                                              | 4 (33) |
| Urban                                              | 8 (67) |
| Ethnic group                                       |        |
| Themne                                             | 3 (25) |
| Mende                                              | 1 (8)  |
| Kono                                               | 5 (42) |
| Krio                                               | 1 (8)  |
| Limba                                              | 2 (17) |
| Religion                                           |        |
| Muslim                                             | 4 (33) |
| Christian                                          | 8 (67) |
| Income level                                        |        |
| No income                                          | 5 (42) |
| Irregular income                                   | 2 (16) |
| Regular income from employment                      | 5 (42) |

**Participants**

Twelve participants, three women and nine men, were included, mean age 34 (SD ±7) years. Disabilities included polio (n = 6), transfemoral amputation (n = 2), and transtibial amputation (n = 4). Two of the participants with polio used assistive devices bilaterally, two used a wheelchair and seven used crutches. Participants’ characteristics and demographics are shown in Table 1.

**Procedures**

Data were collected in Bo, Koidu, Makeni, and Freetown over a 2-month period. Ethical clearance was obtained from the Sierra Leone Ethics and Scientific Committee, Freetown,[20] as part of the research project titled “Prosthetic and Orthotic Services in Sierra Leone”. [19] The study was also approved by the Country Director at Handicap International Sierra Leone in Freetown and by clinical managers at all rehabilitation centres included. Informed consent [21] was read to the participants in English or the local language, Krio, and signed by all participants. Interviews were conducted in different settings such as at participants’ homes or workplaces and outside the rehabilitation centre.

All 12 interviews were conducted face-to-face by the first author (E.A.), five in English and seven in Krio or Kono. Interviews conducted in Krio or Kono were done by consecutive verbatim interpretation [22] with assistance from five different interpreters. The interpreters were not responsible for or involved in prosthetic or orthotic delivery. They were trained and informed about confidentiality and the informed consent process verbally, and through literature about research ethics.[21] Interpreters were instructed to translate each word, and not to summarize, or make up their own explanations; also, to use the first person pronoun to talk about
the subject. Three pilot interviews were conducted and excluded because of subsequent revision of the interview guide, difficulties with translation and inappropriate interpreter conduct. Twelve interviews were conducted subsequent to the pilot interviews and included in the study. The revised interview guide included 10 specific demographic questions regarding age, gender and income, and 11 open-ended questions regarding attitudes within the society, the community and the family, as well as barriers to participation and participants’ experience of assistive devices in relation to inclusion in society. Examples of questions asked were: What is your experience of treatment and reactions towards you in your society, in your community and in your family regarding your disability? Can you give some examples? What do you think is the cause of their reaction? All interviews were audio-taped and transcribed verbatim in English, with some grammatical corrections by the first author (E.A.). To increase credibility, the translations were checked by an interpreter speaking English, Krio, and Kono, and some minor changes were made.

Data analysis

Data analysis was conducted at the manifest level and coding was done by both authors (E.A. and L.M.) according to guidelines presented by Graneheim and Lundman.[23] All interviews were read through by E.A. and L.M. as a first step in analysing the data, and divided into meaning units. Meaning units were read and transformed into condensed meaning units and then abstracted into codes. Codes were read several times and then grouped, compared, and contrasted resulting in the generation of the themes. The processes of condensation of meaning units, creating codes, and generation of themes were discussed by E.A. and L.M. throughout the analysis process to find the best solution.

Results

Six themes emerged during data analysis: Experience of negative attitudes; Neglected and respected by family; Traditional beliefs; The importance of assistive devices; People with disability struggle with poverty; and The need for governmental and international support. The themes are presented below.

Experience of negative attitudes

Participants described being negatively treated by their community and society in general. They were mocked and provoked, and experienced being looked down upon. They felt useless and said that they were not important in the community. The participants thought that people without disability did not regard them as human beings and expressed the desire to be treated as equals, when instead they were being discriminated and marginalized. Some felt mentally weak as a result of being stigmatized and provoked by people without disability. The participants avoided going to crowded places because of fear of falling and fear of disregard. Several participants described being treated well, and being supported and included by close friends and appreciated being involved in social activities, such as football. Others reported being laughed at when participating in social activities.

Even at meetings they don’t include you. They won’t let a person with disability join the meeting. Even if you try to go there, they won’t ask you any question. Even if you try to answer their question, try to contribute, I think they will not give you a chance. (J)

Those participants who attended school experienced discrimination and mocking and sometimes felt discouraged from continuing their education. Despite this, they had a desire to attend school and become educated. They believed that education would solve attitudinal problems: people in the community would understand that people with disability can contribute despite their disability, if they are able to complete an education.

Mostly they say, Oh, look at the disabled person! They will start to imitate you, the way you walk. Which will make you feel discouraged, and you go back to being a resident. It is a great barrier, this marginalization. (B)

Participants feared being mocked, pushed, or viewed as a beggar and preferred to use their assistive devices in order not to be recognized as a person with disability.

I don’t want them to realize that I’m an amputee. Because sometimes when they know that you’re an amputee they take advantage of you. (E)

When the disability was not apparent to others they experienced that people came closer, and there was less discrimination. One participant suggested that people with amputations remind others of the war. Participants expressed the wish to live among others with disabilities. They felt more comfortable and confident among others with disabilities. Most importantly, they felt equal to others with disabilities and they felt stronger in a group when being marginalized.

One participant perceived that continuous discouragement makes people with disability angry, which leads to further discrimination. Participants reported that negative attitudes within the community limited their ability to improve their life standards and self-image.

Neglected and respected by family

Participants perceived that society’s attitudes towards people with disabilities in society were often a reflection of attitudes within the family. Half of the participants experienced being encouraged, respected, and well cared for by close family. The other half of participants experienced being rejected by family, most commonly in an early stage of disability, when they were seen as a burden and as someone who was unable to contribute to the family’s daily living. Participants felt discouraged when they were told that they could not go to school because of their disability. Some participants experienced discouragement when their family was disappointed that the only educated child in the family had been wounded in the war. Some participants were displaced from their families and had lost contact with them.

When I got in the accident my wife left me, because I am not like before. So she did not like me. (L)

Traditional beliefs

Although the participants reported different causes of disability, they commonly blamed traditional beliefs for society’s treatment of disabled people. According to the participants, Sierra Leoneans traditionally believe either that people with disabilities are devils in human bodies or that the disability has been caused by witchcraft. When a child is born with a disability, often the entire community rejects the baby. The baby is left in the forest for the devil to take it back, to die.

I have seen in one village, they took one boy with polio. They took him far out into the bush and left him close to a cotton tree, thinking that before the next day he would disappear. They did it because they thought he was the devil. (H)

Participants described feeling discouraged and shy, having low self-esteem and feeling pushed into a corner because of traditional beliefs. They experienced being forced to beg and live isolated lives.
Many people with disability believed that the disability was their destiny, that it was due to their own bad behaviour in the past. Some believed it was a punishment from God and that for this reason they were less valued in the community. Some participants said they experienced being rejected because non-disabled people thought the disability was contagious.

They think that my past behaviour or my past character – what I have done – has returned to me. (C)

Although the participants with polio knew that the cause is viral, some of them thought that their impairments had been caused by the vaccination injection. As a survival strategy, participants highlighted the importance of accepting their disability and not letting it limit and control their life. Participants expressed the importance of faith and said that they received support and comfort from God and the word of God. One participant had received counselling through an international organization.

The importance of assistive devices

Participants reported that receiving assistive devices had made a remarkable change in their life. Discrimination had been worse before they received their assistive devices. The participants relied on their assistive devices and would not manage to survive without them owing to stress and lack of support. One participant had been unable to move, and had been house-bound for years, before receiving his assistive device. Being able to stand up straight instead of crawling on the ground, and to move freely and dress neatly gave increased dignity and acceptance in society. When using their assistive devices, participants experienced a feeling of being complete; they felt that they were seen as normal people. The assistive devices were also experienced as very important as they enabled the participants to do work and provide for their families. When not using their assistive devices, participants experienced increased negative attitudes when asking for help. For this reason, they opted to use their assistive devices as this improved the possibility of independence. The participants also described the satisfaction and freedom of being able to walk longer distances.

The assistive device helps me to live normally and walk a distance. It helps me to move and meet up with friends. It helps me do some work, take care of my children, do their laundry and get food. (L)

The majority of participants reported using their assistive devices all day but experienced pain while using them, especially when walking long distances. They stressed how important it was to be able to repair their assistive devices. Other qualities they stressed for assistive devices were better durability and lighter materials. Inability to pay for repairs or for transport to the rehabilitation centre restricted them in family and social activities, so it was important to keep the assistive device in good condition. When the assistive device got damaged, participants were forced back to crawling because of inability to access transportation and pay for repairs. Participants experienced being treated well and being encouraged at all the rehabilitation centres.

Not all persons with disabilities are working or earning money. So let these things [assistive devices] be affordable for us. Most of our colleagues have gone back to [crawling on] the floor because orthotics are not available to them. So I am begging, let these things be affordable for us again. (K)

People with disability struggle with poverty

Participants reported having fewer opportunities in life because of disability and poverty. They also said they had lower rank in the society on account of fewer resources. Although everyone has the same needs, they said, it is harder to earn an income when disabled. They felt discouraged and stressed when they were financially dependent on others.

A need for access to education was expressed. Inability to pay school fees prevented participants from accessing education. Some of the participants had been forced to stop school for financial reasons. Moreover, they reported being unable to physically access school buildings due to inability to take steps. This inability to get an education caused anxiety as they did not have the qualifications to get a job. Others had stopped going to school because they thought there were no job opportunities for them even if they were qualified.

Participants experienced that disability limited their ability to get employed and earn money. Even when they were suitably qualified they were denied employment because of inability to access buildings and potential employers claimed to hesitate to employ them based on fear that the assistive device might break at any time. The participants proposed that disabled people be given vocational training or financial support for starting a small business, as a way to enable people with disability to support their families. They called for support from the government and asked to be prioritized when applying for work. They expected that attitudes would change if people with disability would get employed and thus contributed to society. According to the participants’ experience, unemployment forced people with disabilities into begging. Many wanted to avoid begging or longed for an opportunity to be able to stop begging as they felt that begging creates a bad conscience. They felt they were being viewed as beggars who were disregarded by society.

Help them [beggars] financially or whatever. If they learn something they will be able to take care of themselves and get out of this thing. […] Disability does not mean inability, but discrimination makes disability mean inability. (G)

The participants’ poverty also affected the possibility for them to access health care. Participants reported being ignored at the hospital unless they were able to pay; they got the same treatment as anyone else when paying for a medical treatment. One participant reported not getting treatment despite paying fees. Participants reported that it was more difficult for women with disabilities than for disabled men to access health care. They suggested that people with disability should be prioritized in health care, and asked for international financial support.

When I didn’t have the money they [personnel at the hospital] said I had to wait. They kept away from me and I didn’t see them for 3 days. (L)

The need for governmental and international support

Participants reported being able to vote in general elections. However, they felt discouraged because government did not keep their promises. They reported varied opportunity to contribute to decision-making within the community.

Participants related their experiences of having difficulty accessing public buildings that had no ramps. They called for governmental support and recognition of their needs when public buildings, such as hospitals, were being constructed. They also asked that the government support people with disabilities to get employment, and implement human rights for people with disability.

We are all human beings, so let them socialize with us and draw us closer and try to treat us in a proper way. That is my demand to the government. (G)
Participants proposed that international organizations continue their workshops about disability to educate society and families about disabled people and their rights and needs. They had seen positive changes since the arrival of international organizations, and said that attitudes had improved. Participants’ thoughts regarding possibilities to change attitudes varied. Attitudes within the society caused by traditional beliefs were considered difficult to change since these beliefs were deeply embedded in their culture. However, they thought changes might be possible with information and education provided by international organizations. They felt it was their responsibility to contribute to the process through more open communication between people with and people without disability.

Discussion

People with polio and amputations living in Sierra Leone experience many attitudinal obstacles in society, the community and their families. They are discriminated against, neglected, marginalized, and stigmatized. Traditional beliefs in the Sierra Leonean society have a negative impact on the lives of people with disabilities and were viewed by the participants in this study as a cause of discrimination. Assistive devices are very important to people with polio and amputations, increasing their mobility and giving them a sense of dignity. Poverty often forces these people into begging and is a barrier to them accessing education and health care. The participants asked for governmental support, so that they would be able to get an education and access health care. They also asked for increased public awareness of disability.

The participants reported that they had low social status in the community and were being excluded from society. This was confirmed by the United Nations Report on the Rights of Persons with Disabilities in Sierra Leone,[24] which analysed factors that contributed to realizing the rights of people with disabilities. In a report from South Africa, women with physical disabilities reported feeling frustrated because society viewed them as abnormal and mentally ill when they experienced themselves as normal and capable of physical activities.[25] In another investigation, negative societal and cultural attitudes were perceived as the biggest obstacle to achieving inclusion for people with disabilities.[26] Perceptions of disability and personal, social, and practical consequences of impairment have been reported to differ depending on cultural factors.[27]

People with polio and amputations in Sierra Leone experience being provoked and mocked. Previous studies have confirmed that stigma and attitudes towards people with disability are rooted in the languages of Sierra Leone.[24,28] People with physical disabilities are often called “crippled”, or “die futahn” (“dead feet” or “dead hands”) in Krio. Children with severe disabilities are referred to as “debulkin”, which means “devil” or “demon child”. People with amputations are often called “one leg”.[24] Those with physical disabilities face attitudinal obstacles in Sierra Leone and their status within the society needs to be addressed.

This study identifies traditional beliefs as a cause of discrimination against people with disabilities. The previously mentioned United Nations report confirms that negative attitudes and traditional beliefs are strong in Sierra Leone, especially in rural areas.[24] Based on focus group discussions, it reports that people with disabilities are seen as products of witchcraft, and sometimes as not fully human.[24] This was also found by Opala and Boillot,[29] who aimed to analyse traditional beliefs of leprosy among the Limba people in Sierra Leone. Impairment, physical or mental, is usually linked to traditional beliefs such as witchcraft or being cursed for previous punishable behaviour.[28] The belief that disability is caused by witchcraft was, conversely, found to be “positive” in some villages where some disabled people are believed to have “special powers” and hence have higher rank.[5]

Traditional medicine is often used to find the cause of disability.[28] Traditional medicine, according to the World Health Organization, consists of knowledge, skills, and practices based on the theories, beliefs, and experiences of different cultures, and used for the maintenance of health or treatment of illness.[30] People’s understanding of disease and disability and its causes is dynamic and sometimes incoherent. Dysfunctions of the body, as represented by illness or disability, disrupt the harmony between the physical, social, and moral being. People give meaning to illness and the experience of disability by drawing from multiple sources. Societies’ understanding of disability varies depending on knowledge, personal experience, and traditional beliefs.[31] Societal discourse about illness, disease and disability, cultural resources and beliefs, as well as expert discourses including biomedicine and traditional medicine, affects how a person with a disability is viewed in society. People who are illiterate build their beliefs and knowledge through verbal information only, making them more prone to society’s prevailing norms and beliefs. This also has an impact on the way they view disability.[31] Both our results and previous studies [5,24,28,29] indicate that traditional beliefs can cause discrimination and have a negative impact on people with physical disability. To improve the status of people with disability in society, the influence of traditional beliefs needs to be considered and addressed. Increased awareness of disability and implementation of the CRPD at different levels in society is needed.

Assistive devices were highly important to the people with polio and amputations in our study, helping them to preserve and increase their dignity. Assistive devices help people with disabilities with everyday activities such as movement, ensuring greater independence and, as a result, equality in society. A previous study [19] investigating mobility and satisfaction with assistive devices among people with polio and amputations in Sierra Leone reports that people using orthotics, compared with people using prosthetics, had significantly more difficulty moving around and fewer possibilities to access prosthetic and orthotic services. Orthotic users were found to have lower income compared to prosthetic users. Women with disabilities have been reported to be less satisfied with their assistive devices, and the prosthetic and orthotic service,[19] and to have less possibility to pay for repairs and new assistive devices.[7,19] Participants expressed the importance of being able to access repairs and durability of assistive device, previous studies confirm that these are issues that need to be addressed.[19,32]

Transportation needs to be affordable and easily accessible for people with polio or amputations. This result was consistent with a previous study where local rehabilitation staff reported inability of prosthetic and orthotic users to pay for transportation.[7] Prosthetic and orthotic devices increase the dignity of and are vital to people with physical disabilities. To improve access to prosthetic and orthotic services in Sierra Leone, these services need to be affordable and related costs, such as transport, need to be covered by support as disability leads to severe poverty.

The present study reveals that people with disabilities prefer living together with other people with disability. This has been confirmed by two previous studies from Sierra Leone.[11,28] People with disabilities who live together have easier access to employment, including begging, and support each other.[28] The present study and previous studies have revealed that living together in isolated societies is a way to escape discrimination and stigma.[5,28,33] At the same time, however, living in isolated
communities together with other people with disabilities decreases the possibility to integrate in society.[5,28]

This study indicates poverty-related inability, for people with polio or amputations, to access education. The inability to pay school fees is part of the vicious cycle of poverty and disability. Inability to access and complete an education decreases the ability to get employed. No employment leads to lack of income and further increases poverty while decreasing social development because of social exclusion, cultural exclusion and stigma.[8] The link between disability and poverty [8] can be reduced if people with disability have access to education.[34] The present study identifies attitudinal barriers to employment due to disability and the need to beg. People with amputations have been reported to remove their prostheses and thus appeal to the emotions of non-disabled people when begging for financial support.[5] Elsewhere it was reported that people with leprosy living in India started begging after developing deformities due to the disease. Most were illiterate and begging was seen as the only, albeit humiliating, way to earn money; most of them wanted to stop begging if possible.[33] It is important to create work opportunities for these people to reduce begging.[33] In our study, people with physical disability wanted to stop begging but were dependent on begging to cover basic living needs. Increased access to education, employment and financial support could contribute to an improved standard of living for this population.

The difficulties experienced by people with polio or amputations in accessing health care are a question of socio-economics rather than attitudes. Most of our interviewees had experience of getting the same treatment at health services as everyone else when they were able to pay medical fees. Trani et al. [35] found that there was no significant difference in access to public health care for people with, compared with people without, disability in Sierra Leone. They found that it was a matter of socio-economics but that people with disability were more likely to be in need of public health care.[35] Despite this need it has been found that a higher level of impairment decreased the possibility to access health care.[36] Poverty seems to limit the access people with physical disabilities have to general public health care.

Varied opinions were reported concerning the support the government in Sierra Leone gives to people with polio or amputations. The participants called for increased governmental support, especially regarding education and health care. The government of Sierra Leone has paid limited attention to disability issues so far because after the long civil war many other areas needed urgent attention. However, the government has shown an increased commitment to disability issues by ratifying the CRPD in March 2011 [12] and passing the Person with Disability Act in the same year.[37] Still, those with disabilities in Sierra Leone continue to face discrimination, even though the CRPD and the Person with Disability Act are important recent changes at a policy level. These changes will lead to improvements for people with disabilities in Sierra Leone, provided the policies are put into practice at multiple levels within the society. Support from international organizations is still needed in this regard.

A limitation of the study is that only 12 participants were included. However, variation was achieved by including participants receiving services from different rehabilitation services, from different regions of residence, both rural and urban areas, different ethnic groups, gender, religions, and level of income (Table 1). A limitation of this study is that only people who had received lower limb orthotic and prosthetic services were included; people who had not received these services are not represented. Both E.A. and L.M. are certified prosthetists and orthotists with experience of delivering prosthetic and orthotic services. L.M. has previous experience of disabilities and rehabilitation research in Sierra Leone and other low-income countries and has conducted qualitative analysis of disability data from different countries.

Conclusions
In conclusion, this study reveals the needs of Sierra Leoneans with disabilities to be included and supported to a greater extent, not only by society in general, and by the community and their families, but also by the government and international organizations. Traditional beliefs have had, and continue to have, a negative impact on people with physical disabilities and are a cause of discrimination in Sierra Leone. The level of discrimination against people with disability is such that many prefer living in segregation. Prosthetic and orthotic devices are vital for people with physical disability, leading to increased dignity. Prosthetic and orthotic services need to be accessible and affordable. Poverty affects access to education, employment, and health care for Sierra Leoneans with physical disabilities who are dependent on begging to cover basic living needs. People with disabilities in Sierra Leone continue to face discrimination and although important changes have been made at policy level, such as the CRPD and the Person with Disability Act, these still need to be fully implemented.

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