

**FACTORS SHAPING ATTITUDES TOWARDS PHYSICAL DISABILITY
AND AVAILABILITY OF REHABILITATIVE SUPPORT SYSTEMS
FOR DISABLED PERSONS IN RURAL KENYA**

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ABSTRACT

This study examines the range of attitudes towards persons with physical disability in a rural community in western Kenya. It also evaluates the availability of services for persons with disabilities in the community. Qualitative data analysis of interview material led to the generation of a model describing the attitudes towards people with disabilities. Availability of services was explored through interview questions and document collection. Perceived cause of disability, perceived characteristics and activities of people with disabilities by the community and perceived role of society, appear to shape the attitudes towards people with disabilities in the community studied. The opinions within these categories contribute to enabling and disabling features of the environment in which people with disabilities live. It appears that services available are underused by disabled members of the community due to poor accessibility and financial barriers. The results yielded relatively enabling attitudes towards PWD. The responses suggest that this community may be ready to support increased participation by its members, possibly through a community based rehabilitation programme.

INTRODUCTION

With the recently signed United Nations Convention on the Rights of Persons with Disabilities (1), integration of disabled persons is being recognised as a pertinent objective, particularly in developing countries where services for persons with disabilities are limited. The International Classification of Functioning (ICF) (2) model of disability describes the external factors that influence an individual's ability to participate in society as environmental factors. These include the individual and societal aspects of physical, social and attitudinal environments in

a person's life (3). Identifying current attitudes is a first step towards establishing an approach to promote the rights of people with disabilities through supportive environments.

Attitudes can be described as "learned dispositions affecting feelings thoughts and actions." (4). The attitudes of community members and of society can impact the ability of people with disabilities to be accepted and integrated in the community (5), both by affecting self efficacy and by influencing their physical and social environment. Community attitudes are particularly important because active community involvement is essential for success and sustainability of a community based rehabilitation (CBR) programme. The community should be involved in all steps of the process, including programme planning, implementation, and evaluation (6).

The prevalence of disability in western Kenya is not known. According to local and national rehabilitation providers, it is thought to be similar to the worldwide average of 10%, estimated by the WHO. The Kenyan Population Census of 1989 reported that 0.7% of the population was disabled (7). This is thought to be an underestimate, possibly due to underdetection, as 80% of persons with disabilities worldwide live in low income countries (8). Without the resources and social structures that some high income countries have to help support persons with disabilities, they can be subjected to decreased participation in the community due to exclusion based on limited resources, accessibility and social acceptance.

Previous studies have examined the attitudes of specific populations towards disability. Many of these studies involved health care workers and health care student populations (4,9,10). while others included close relatives and other community members (5). In these studies it was found that attitudes of health care workers have an impact on expectations, access to health services and on successful rehabilitation. The attitudes of those studied were also influenced by their experiences and interactions with persons with disability (9,10). Literature regarding community attitudes towards persons with physical disability in Africa is limited. A study examining the attitudes towards disability in rural Zimbabwe found that beliefs about the etiologies of physical disabilities did not influence the treatments sought by people with disabilities, as most respondents chose both traditional and western treatment approaches. This study also noted relatively positive attitudes in the population studied (11). Available literature does not appear to provide insight into current perceptions surrounding physical disability in rural Kenya.

This study aims to sample the range of attitudes towards persons with physical disability in a group of rural villages in western Kenya. By exploring the ideas, interests and opinions of community members, there would be an understanding of the range of attitudes that shape the local environment, in which a rehabilitation programme would be initiated. Understanding attitudes may help to guide interventions and enable accurate evaluation of programme effectiveness (5). This study also explores awareness and use of rehabilitation services for people with disabilities in the community.

METHOD

In this study, mixed methods were used to evaluate the attitudes towards disability, as well as to establish what current services are available for disabled persons, and the extent to which these services are used. A qualitative approach was used in an effort to gain an understanding of the full range of opinions present in the study population and to gain insight into how thoughts and opinions of community members relate to community support of people with disabilities. A quantitative approach was taken with respect to use of available services. Available services were identified through a questionnaire, by speaking with the local social services department and through research online. Each participant received an explanation of the study and provided consent prior to taking part in the survey. Ethical approval for the study was obtained through the Queen's University Research Ethics committee.

The questionnaire was developed based on general topics contained in existing quantitative scales on attitudes towards disability (5). The questionnaire consisted of two parts: collection of demographic data and open ended questions relating to persons with physical disabilities. The demographic survey included age, gender, place of residence (rural or urban), occupation, and level of education. Participants were asked about their relationship with individuals with a physical disability. Semi-structured interviews were conducted in the homes or yards of participants, through a local interpreter who was fluent in English, Luo and Kiswahili. The interpreter was trained in advance on the purpose of the study and the aims of the interviews, and agreed to preserve confidentiality. Responses were recorded by the researcher, in English, onto the questionnaire form. At times further probing was done to better understand the responses.

The sample

Participants 18 years of age or older, were selectively chosen from a convenience sample of the 17 villages of the Barkowino sub-location, in the Nyanza province. Guidelines to maximise range of respondents including variation in age, gender, level of education and occupation, within each village, were used for participant selection.

Data Analysis

Data were entered and analysed using the NVivo 7 qualitative data analysis programme. Multiple levels of coding, and triangulation were carried out, and common themes were identified. A model was then created, based on the themes which emerged from the data.

RESULTS

Table 1. Demographic information of participants

Gender	N	%	Mean Age
Male	20	55.6	46.7
Female	16	44.4	36.7
Total	36	100	42.2 years
Occupation			
Farmer	13		
Repair technician, Plumber/water technician	6		
House wife	1		
Businessman/sales	2		
Teacher	3		
Pastor		2	
Healthcare worker	2		
Student	1		
Retired	3		

Level of education			
None	1		
Standard 3-5	5		
Standard 6-8	17		
Secondary	7		
Post secondary	6		
Acquainted with a person with a disability			
Yes	35		
No	1		
Relationship to a person with a physical disability			
Immediate family member	7		
Extended family	13		
Friend	6		
Village mate/Community member	11		
Self	3		
Have seen PWD	1		

8.3% reported they had disability themselves; 97.2% admitted to being acquainted with a person with a disability and 1 participant did not know anyone with a disability. The types of disability noted by community members included hemi paresis, post polio syndrome, crippled, limb amputation, bowed legs, hip fracture, cerebral palsy, epilepsy, short stature and sensory impairments (blind, deaf).

The following three main themes emerged through qualitative analysis of the data: perception of the causes of disability, appreciation of differences and capabilities of disabled persons, and beliefs surrounding societal responsibilities. Quotations provided are as stated by the language interpreter.

a) Perceived causes of physical disability

The most common causes of physical disability described were accidents and disease. Accidents included natural calamities as well as traumatic injury due to falls and motor

vehicle accidents. Disease as a cause of disability was described as having either a genetic, congenital, or external etiology. Some respondents described natural causes of disability relating specifically to genetics: *“Naturally during gene division”*; *“If her grandmother is crippled, [a woman] may give birth to crippled child.”* However, natural causes also encompassed various factors during pregnancy leading to the birth of a disabled child such as *“born with it [disability] due to pills for planning taken while pregnant.”* Maternal illnesses, such as malaria infection, during pregnancy were thought to cause congenital disability, *“some are born crippled due to a disease inside the womb.”* External causes of disease were associated mainly with poor health, infectious diseases, stroke and malnutrition: *“A non balanced diet, especially in small children, can lead to deformity.”* Specific diseases such as polio, measles, rickets and malaria were all listed as causative factors in physical disability.

Traditional and spiritual beliefs also play a role in the understanding of cause of disability. Witchcraft, misfortune, and mysterious causes were all linked to disability. Witchcraft could be carried out by a family member or an acquaintance: *“A relative may use magic power on another relative because of jealousy.”* Human or supernatural elements may lead to misfortune and disability, *“may be human driven or spiritual when you’re put in a state of misfortune, for example when fighting for land.”* One respondent explained that when the disability cannot be attributed to genetics, the parents may have opposed a taboo in the past. For example, within a polygamous relationship, if the husband was supposed to sleep in the hut of the second wife, but sleeps in the hut of the first wife, they may have a child with a disability. Traditional medicine practices were also linked to disability: *“If a child is not properly massaged when born to protect him and prevent disease by increasing temperature and relieving tight, sore muscles.”* Finally, physical impairments were linked to mystery, particularly when worries and problems were thought to be the cause of a disability that couldn’t be explained any other way.

Spiritual beliefs linked deformity and disability with causes relating to a higher being beyond human control: *“When people are born naturally disabled and the cause can’t be explained, it must be God’s plan. It can’t be any other way.”* Spiritual beliefs also described human behaviours as precipitants of reactions from God. *“Disability is driven by supernatural powers. God reacts differently to people based on behaviours.”*

Causes of disability related to poverty included too much work, malnutrition and lack of health care. Participants explained that poor access to health care can lead to disability because people are then more likely to rely on traditional treatment, which may be unsuccessful. The large distances to the hospital and the absence of organised first aid increases the risk of disability in the case of pre-existing poor health. Respondents also suggested that childhood illnesses such as measles that are left untreated, can result in disability. One respondent expressed distrust in the medical system, identifying it as a cause of disability: *“Swelling after an injection can lead to disability in the leg. The way it was explained to me was that either the [injected] drug didn’t work or had expired.”* Participants indicated that some parents are ignorant with regards to raising their children and they do not take their children for immunisations or medical appointments. They felt that this was a significant cause of childhood disability and may be related to poverty, in that, many parents are poor and have little childcare education. The aging process was also thought to play a role in disability as evidenced by the following statement from a respondent: *“As people grow older, they face challenges, work accidents and other accidents.”*

b) The role of persons with disabilities in society

Respondents’ descriptions of role differences between persons with and without disabilities ranged from no difference, to various levels of impairment. Participants described visible physical limitations and indicated that people with disabilities require support and have less access to health care facilities and transportation. They also reported reduced function and participation. Disabled persons were described as having fewer opportunities, particularly employment opportunities, and some were described as having different character traits, such as being shy or easily angered. Disability was felt to have an impact on the family, particularly in relation to birth order which is important in Kenya.

“I prefer the first child should not be disabled [2nd or 3rd would be preferred] because everything happens in order of birth, first child does everything first: builds his house, gets married and others must wait until 1st child has done everything, then the door is opened for all the other children.”

Finally, some respondents indicated that the government does not provide adequate support for disabled persons: *“The government is not concerned. I have written 6 proposals applying for support and have received no response to any of these proposals.”*

Capabilities of persons with disability

The potential capabilities described by respondents, ranged from unable to participate at all to a spectrum of areas of participation, such as community consultants, advising on agricultural issues including which seeds to use for farming and the correct time to plant them. It was suggested that they could be employers, educators and role models both, for disabled and non disabled persons. They could also contribute to community development by mobilising and sensitising the community on pertinent development issues. One participant mentioned that people with disabilities have more time to read and to further their education. They envisioned roles such as leaders, advisors to the government and mediators resolving conflict between other community members.

Because they are home during the day, disabled persons were thought to be able to protect the homes of their neighbours. They were also thought to be able to contribute economically, both by working and by employing others.

“With support, employment and hard work they can contribute materials to the community or to neighbours. If he keeps poultry he can give it to the neighbour when the neighbour has a guest”; “If God blessed him with a job, he will consider other community members because he has also experienced problems.” Many respondents viewed employment as an important aspect of life and some said that disabled persons can do any job. One respondent described his success working and supporting his family in the following quote:

“I have a home with my wives and some people without disability don’t have this, this can be attributed to success at work. I started in school and when I couldn’t continue my studies, I started working commercially. I worked hard and had 3 wives. I had to beg people to carry me to Bondo (nearby town), then I rented a house in Bondo closer to my work.”

c) Responsibility of society

Participants indicated that the community, the government and outsiders should all have a role in improving services for disabled persons. Community awareness was discussed as the first step in working and living with disabled persons: *“Educating the locals to understand the disabled and disabilities”*. The importance of learning more about the capabilities of

people with disabilities in order to maximise their participation in the community and help them to achieve their potential was also emphasised. *“They can contribute much, it depends on the level of utilization of their knowledge.”* Suggestions included raising awareness, initiating support groups and interacting with people with disabilities to learn more about them.

It was suggested that community members should meet and problem-solve to improve accessibility. One example given was to alter the bicycle size for someone of short stature. Accessible schools, buildings and services in the community were identified as areas needing improvement. *“Schools must be equipped to encourage them to come: toilets for them and such.”* Education and vocational training were also identified. One respondent suggested training teachers to provide education for persons with disability. Those who are able to work should be supported by providing tools and vocational training, in addition to encouragement and identification of strengths. It was suggested that if volunteers could provide education, disabled persons would be more likely to find paying jobs to support their families and communities.

Respondents also spoke about empowering disabled persons to be self reliant by forming self-help groups. Others noted that assistance for people with disabilities is also important, through material support and services such as government food programmes, transportation, accessible buildings, and rehabilitation centers where they can obtain assistance at different levels. Other participants suggested wheelchair maintenance for those who cannot afford it,

Table 2. Stakeholders in the care of disabled persons

Caring for people with disabilities	Evidence: responses to “Who should care for people with disabilities?”
Family Community Everyone	<i>“Family members, closest relatives in collaboration with other people”, “Everyone in the community should take care of the disabled”</i>
Teachers	<i>“teachers should protect the disabled children from fellow pupils taking advantage of them/abuse/beat them”</i>

Government	<p><i>"Depending on the level of poverty in the area, maybe [the community] can't take care of them so the government and churches should"</i></p> <p><i>"Government because they have the ability to do everything and if they have an opinion people will listen, they are able to lobby for funds"</i></p>
Self	<p><i>"They should be self reliant, they should form groups where they could support themselves"</i></p>

as well as wheelchair and walker donations. Relevant stakeholders identified in the care of people with disabilities include family and community members, teachers, churches, support groups, the government, individual donors, NGOs and other countries (Table 2).

d) Current services

Services currently available in the region, for persons with disability, include:

1. The Association for the Physically Disabled of Kenya (APDK) provides wheelchairs and mobility devices for persons with disability through the Bondo District Hospital. people with disabilities apply through the physiotherapy department at the hospital, and deliveries are made approximately every 3 months.
2. Bondo Association for Persons with Disability is an initiative by the local officer for Community Based Rehabilitation. The association is made up of persons with disability, their families and community members. At present, the major challenges are funding, transportation and logistics for meetings, because members have difficulty travelling to meetings.
3. Bondo District hospital provides physical therapy and medical support for people with disability. The distance to the hospital makes it inaccessible to many. A volunteer group of community based rehabilitation workers provides some assistance; one member of the group gave the example of facilitating communication between a child with a disability and a school for disabled students.

4. Schools for children with disabilities in western Kenya include Nyangoma School for the Deaf, St. Oda School for the Blind and Nyabondo Centre for the Disabled. Participants indicated that these schools were often not accessible either due to distance from the village or financial cost.
5. Government training programme: A national teacher training programme is currently in progress to train teachers to specialise in care for students with disability. The goal is to have 1 trained teacher in every school by 2015. A government funding programme may also be available to improve accessibility for students with disability, by modification such as ramps or accessible latrines in local schools.

Table 3. Services for persons with disability

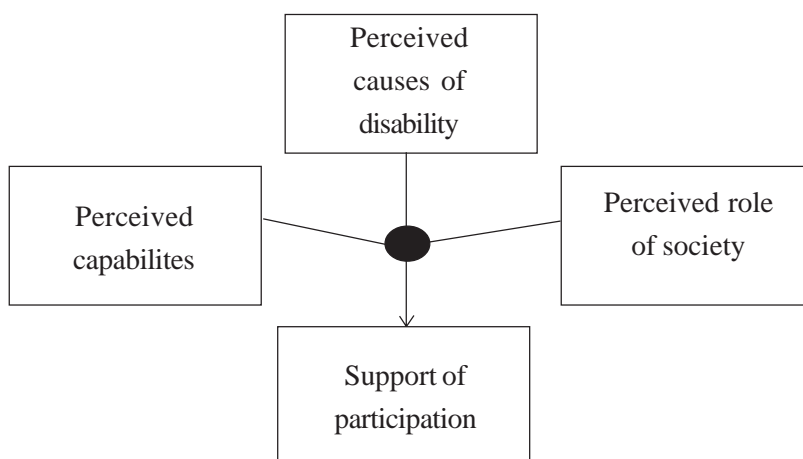
Participants knowledge of services for disabled persons	N	%
None	13	36.1
"None," but had an idea of a possible support available	5	13.8
Respondent was able to describe available services	17	47.2
Hospital, health centre	(3)	
Schools	(9)	
Associations	(2)	
Kenyan National fund for the disabled	(1)	
APDK Kisumu	(1)	
Government support	(2)	
Youth group programme	(1)	
No response	1	
Total	36	

47.2% of respondents listed one or more specific services available for disabled persons. 36.1% of respondents did not know of any services available in the area for disabled persons, 13.8% (5/36) respondents said they had tried to access services or they knew someone who tried to access one of the supports or services in the area. Only 2 of the 5 respondents in the above group reported a successful attempt to access the services.

DISCUSSION

Through data analysis, it became evident that the three categories which emerged, perceived causes of disability; the role of disabled persons; and the responsibilities of society, all contributed to participants' expression of their attitudes towards disabled persons. These attitudes ultimately determined support of participation for disabled persons in the community. The following model was generated from the interview data.

Figure 1. Model



Perceived causes of physical disability

Beliefs surrounding causes of disability were investigated, because it was postulated that perceived cause would affect attitude and thereby have an effect on participation. The primary causes described by study participants were accidents and illness, traditional causes, natural causes, poverty and aging. These results correlate with a study from rural Zimbabwe (11), where 56% of respondents blamed traditional causes such as witchcraft and spirits, and 33% blamed God and a small minority blamed natural causes. In the Zimbabwe study, accidents and illness were not included in the list of causative agents from which participants chose their responses.

In this study, no respondent held the disabled person responsible for his own impairment. The authors would therefore not expect understanding of causes to contribute negatively to attitudes

towards people with disabilities. In the Zimbabwe study, the authors suggested the presence of a stigma attached to disability, as some respondents were found to list different causative agents for disability in their own family, than for disability in general. For example, one respondent indicated that some disabilities arise from witchcraft and ancestral spirits, but he explained that his arthritis was a natural cause of aging and his daughter's polio was a natural disease (11). The authors found that the perceived etiology did not correlate well with treatment choices, as most participants had sought both medical and traditional therapy for their disability; nor did it correlate with rejection of people with disabilities. It appears, therefore, that a rehabilitation programme could be effective, regardless of causal beliefs and that perceived cause may not impact the type of treatment the community would be willing to support. The study in Zimbabwe may have contained some biases, as the small sample was composed solely of disabled persons and their families (11). Further study would be required to determine the direct impact of local perceptions about causes of disability, on support of participation for people with disabilities. If a link was found, then educating community members on the etiologies of disability would be an important consideration for a community rehabilitation programme.

In the current study, no correlation was found between perceived cause and perceived ability to participate in the community. Respondents who indicated that a disability was due to traditional causes such as witchcraft, a curse, or a parent breaking a taboo still recognised a range of capabilities and support options for people with disabilities. In the model described, perceived etiology contributes indirectly to support of participation of people with disabilities, as a component of general attitudes towards disability.

Perceived characteristics and capabilities of people with disabilities

Participants listed a wide range of capabilities that they perceived to be characteristic of people with disabilities. There is little documentation on this topic; however, these responses can be compared with studies describing current participation for people with disabilities. In a study by Gallagher and Mulvany, difficult activities for people with disabilities in Ireland included getting along with people, getting around and general life activities (12). One respondent in this study reported that people with disabilities are shy and easily angered, which coincides with the previously described difficulty in interacting with others. However, this perception was not pervasive among respondents in the current study. Lack of appropriate

transportation was clearly listed as a disabling factor by participants in this study and many of them suggested improving accessibility and travel conditions. This is consistent with results from a study on adults with orthopedic disabilities in rural areas (13) where transportation, distance to an activity site, and lack of facilities and programmes were listed as barriers influencing participation in leisure activities.

Employment

Most respondents in this study indicated that people with disabilities could be gainfully employed. A study on employment following spinal cord injury (14) reported that the average participant worked for 2/3 of their available time. Demographic and psychosocial factors had the greatest effect on working hours; where the best predictors, gender and work attitude, accounted for more than half of the variance. Work attitude, measured using Kanungo's scale, included questions such as: 'Should work be considered central to life?' (14). This study, finds that the community members, including people with disabilities interviewed seem to be very work oriented as most of them discussed work in questions even where it was not directly asked. However, only a minority of participants interviewed, were disabled. It may be worthwhile exploring how people with disabilities in general may feel about this issue.

Role Models

Motivation post injury was one of four categories of promoting factors for physical activity identified in a recent study by Kerstin, Gabriele and Richard. This group found that role models can be a source of motivation for physical activity and that being a role model is an important motivational factor for people with disabilities (15). In this study, respondents indicated that people with disabilities could be role models for each other and for persons without disability. Studies have also shown that people with disabilities can engage in physical activity and other health promotion activities if they are made accessible to them (16).

Political Participation

Respondents indicated that people with disabilities could be advisors to the government and partake in community development. Political participation is based on internal and external aspects of efficacy (17). This refers to a sense of personal competence to understand and

participate in politics and the sense that one's participation will influence government decisions. Many people do not take part because they do not see the government being responsive to their needs. Internal efficacy has been found to be a predictor of political participation among persons with and without disability, where as external efficacy only predicted political activity among people with disabilities. Furthermore, employment, education, economic and social factors influence efficacy of people with disabilities (17). In this study, participants suggested that people with disabilities have more time for education, which could perhaps improve outcomes for political participation. Other studies suggest that people with disabilities engage in political action to fight stigma and discrimination (18,19 cited in 17). In this study, however, respondents suggested political participation for the benefit of the community in general, rather than to gain ground in the area of disability.

Social participation has been linked to quality of life of older persons living with physical disability in the community. Interpersonal relationships, responsibilities, fitness and recreation have all been associated with increased quality of life, and social roles have been found to correlate more with quality of life, than do daily activities (20). In this study, many activities listed by respondents related to social participation. Facilitating similar roles and activities in people with disabilities may lead to improved quality of life for community members with disability. As a result, awareness of the capabilities and limitations of people with disabilities will help community members to provide a more enabling environment. This community appeared to have a positive outlook towards the capabilities of people with disabilities. They have indicated that people with disabilities are capable of a wide range of leadership roles including being advisors, community developers, teachers and role models, suggesting a relatively positive attitude towards participation for people with disabilities.

Perceived role of society

The outlook of the community towards its role in supporting participation of people with disabilities provides further insight into social attitudes and expectations, described by Devine and Lashua as social context (21). Social context can factor into the disability experience of people with disabilities by affecting perceived impairment for disabled persons themselves (22). This makes community involvement a particularly important consideration. Respondents in our study made suggestions on the type of support required and about who should help to

make the environment more enabling to improve ability of people with disabilities to fulfill their role within in it. Based on these responses, it is seen that the community recognises that barriers or deficits exist and that community members themselves, can play a part towards breaking down barriers. Due to community limitations, however, they saw the need for a variety of other supporters as well.

Role of the Community

Community and family members were named as primary caregivers, as they are close to people with disabilities and have a better understanding of their needs. Respondents also addressed the need for training of community members. Peterson and Quarstein's study on sensitivity training for employees working with people with disabilities, in which they suggest can be related to the general population, found that training improved understanding of the abilities of people with disabilities and of how to interact with them, leading to increased success for people with disabilities (23). Other studies show that quality interactions (9) and social roles that emphasise valued attributes of people with disabilities (10) improve favourable attitudes towards people with disabilities. Tervo and colleagues also found that for nursing and rehabilitation students, increased work and educational experience with disabled persons helps to improve attitudes (4).

Role of other Supporters

Acknowledging limitations, respondents saw the need for a variety of external supports which extended to the local and national government, NGOs, well wishers and international organisations. As equal citizens, the rights of persons with special needs should be adequately supported by state structures (24). In Kenya, this includes legislation such as the Person's with Disabilities Act (2003), which promotes the rights of people with disabilities, and Labour Law reform proposals described by the International Labour Organization (ILO) in 2004 (25). Family and the local community should not be held solely responsible for the care of people with disabilities. With the recent adoption of the United Nations Convention on Rights of people with disabilities, these rights should be recognised by all member countries, including Kenya who signed the convention in March 2007. Reliance on external sources of aid, such as well wishers and international donors raises sustainability concerns. Responses may have

been biased, as participants were aware that the researchers were foreigners; however, it is important to consider the effects of foreign aid on community projects. Success of development programmes is dependent on support from the community. Ideas, needs assessment and program planning should come from the community in order to promote program sustainability (6). However, these alone may not guarantee sustainability. It is the authors' belief that for long term sustainability, ongoing effective support needs to be provided from within the societies in which people with disabilities live.

Type of Support Required

Respondents made suggestions on much needed types of support, among which were listed accessible buildings, improved transportation services and mobility aids. A study investigating the degree of handicap for people with physical disability in the highlands of Papua New Guinea, found mobility devices, including prosthetic limbs and wheelchairs, to be the most helpful intervention for the group studied. Family members were found to have adequate skills to care for disabled relatives within the context of their community (26). These findings highlight the importance of a needs assessment to ensure that support is directed appropriately. Many respondents thought support groups, formed either by the community or by people with disabilities themselves, would be helpful in their village. Literature suggests that support groups can improve self efficacy and quality of life for people living with a variety of disabilities (27).

The responses discussed above suggest that respondents have adequate knowledge about current needs, but many indicated that they do not have the time, the resources or the skill set to implement them. The ideas alone, demonstrate support for improving participation; however, the authors are unable to comment on what level of action the community would be willing to take as the question was not asked directly.

Services and supports for people with disabilities

Assistance with activities of daily living (ADLs) and instrumental ADLs seems to come mostly from family or community members in the area studied. There were no specific support services for domestic adaptations, aside from anecdotal evidence of funding for school accessibility improvements. By 2015, there is expected to be a teacher in each school,

trained in caring for people with disabilities. There are a number of schools for children with disabilities in the district, but accessibility is limited for members from the community studied, due to financial cost. Some mobility aids and adaptations are available, one respondent with short stature reported that his bicycle was modified, so that he could ride it. The APDK also provides services to people with disabilities by providing tricycle wheelchairs and adapted work tools, although no respondents interviewed, had received the tools.

The social services programme available does not appear to be well used by community members. The cause for this was unclear; one respondent said he applied six times and never received a response. Health services for people with disabilities are available. Physiotherapy can be accessed through the Bondo District Hospital. Patients are assessed first in the hospital, and then referred to the physiotherapy department. Other supports available including Bondo Association for Disabled Persons and Community Rehabilitation Workers, services are limited by finances and transportation.

The National Rehabilitation Programme (1968), is a national initiative which provides vocational rehabilitation (25); it is not well known or used in the area. Only the Kenyan Institute of Special Education (1986), appears to be known as some teachers in the community described funding opportunities for accessibility improvement in schools and for training special education teachers.

In general, it appears that current resources are underused by rural persons with disability in the community studied, generally due to lack of knowledge of the services, high costs and accessibility or transportation difficulties.

Implications of the findings

This community, from an attitudinal perspective, appears to be ready to support substantial participation of people with disabilities, and thereby may be ready to support a CBR programme. The ideas suggested, including vocational rehabilitation, community education, improved accessibility and social participation, are all possible components of a CBR programme. A community needs and resources assessment should be carried out before initiation of a programme. The findings of this study are consistent with the limited current literature on attitudes towards disability in rural Africa, where Jackson and Mupedziswa found that attitudes in rural areas were more positive than they had predicted (11). This study also demonstrates

a fairly positive outlook and good understanding of disability in a rural African community.

The limited supports available are underused due to knowledge and access deficits. Larger national institutions and services are not used by those living in this rural community, as residents are unaware of the available resources. Local health facilities and community based rehabilitation workers are in a good position to assist people with disabilities in the rural community with access to these services.

CONCLUSION

The findings provide insight into the attitudinal factors affecting people with disabilities in a rural Western Kenyan community. The perceptions regarding cause of disability, potential role of the disabled person in society, and role of society towards people with disabilities shape attitudes towards disability. The model presents factors that may influence social and attitudinal components of the environment. This study, shows community attitudes that may support a relatively enabling environment for integration of people with disabilities into more meaningful participation in community life.

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