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Original article

Relationship of disability to socioeconomic growth among people living with disabilities in rural Kenya: Chakama location, Kilifi County

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Abstract

Background: People with Disabilities in rural areas have been denied access to basic needs like their urban counterparts, such as health care, food, proper housing, and care, resulting in continuous inequality in access to services and a loss of dignity; this has harmed their mental health. The study's overarching goal was to establish a link between an increase in disability cases and poverty levels in rural areas.

Methods: The study was carried out in Chakama, Kilifi County, across 40 communities, and data was collected quantitatively with a total of 265 impaired interviewed on their disability status, among other criteria. The findings of the disabled in Chakama were analyzed using frequencies, percentages, and pie charts. Snowball sampling was used to choose respondents from *Wazee wa mtaa* (locally known seniors within a neighborhood of ten households who are considered to know every member of the ten-household neighborhood) and interview disabled.

Results: At least 77% of the disabled people interviewed had serious disabilities that prevented them from working. There is a link between increased poverty and the development of serious disabilities such as mobility and vision.

Conclusion: Failure to respond to disability needs increases the likelihood of economic degradation and poverty, particularly in marginalized communities; there is a need for collective engagement of society and relevant bodies to ensure disabled have access to prerequisite needs, improve medical services in health facilities in rural areas, and build resilience among disabled to reduce reliance on family and aid.

Keywords: Disability, Health Service, Chakama, Poverty, Rural, Community, Kenya

Introduction

A disability is defined as an impaired function or condition in comparison to an individual's or group's normal standard. This phrase refers to a person's functioning, such as mobility (physical disability), sensory, cognitive, and intellectual impairments (1). Disabilities are different and vary from one disabled to the next, thus generalizing them could be misleading; a small child with autism, a motorist who was in an accident and had his hand amputated, and an elderly guy who was unable to see are all examples of disabilities (2). handicapped people are affected differently even if they have the same condition; for example, cognitive/learning handicapped people appear to face more stigma than those with physical or auditory difficulties (3).

According to a World Bank report from 2011 (4), 1 billion individuals (15%) of the world's population have some sort of disability, with 80% of these disabled persons living in developing nations. Regarding the foregoing, there is a close relationship between disability and poverty, with disability potentially triggering poverty and hence increasing the probability of disability (5). Furthermore, figures from the preliminary report on the 2019 census in

Kenya show that 2.2% of Kenyans (0.9 million) have some sort of disability, with more persons living with disabilities in rural areas than in urban ones. The prevalence rate by domicile revealed that 2.6% (0.7 million) of people in rural areas have disability, compared to 1.4% (0.2 million) in urban areas (6). Inclusion and acknowledgment of the disabled remains a struggle, and as COVID-19 moves forward, it is critical to understand how People Living With Disabilities (PLWDs) are uniquely affected (7).

Data collected in the Chakama region revealed a wide range of infirmities.

The International Classification of Functioning (ICF) identifies four dimensions of impairment, including (8):

1. Body structure and functionality, as well as impairments (degree of body functioning).
2. People's actions and limitations in these activities (individual functional level).
3. Participation in all aspects of life, as well as constraints on such participation.
4. The environmental factors influencing these encounters, and whether these factors are barriers or contributors.

As a result, disability can be divided into six categories:

1. Physical and mobility impairments- These can be inborn or acquired later in life and are caused by upper and lower limb issues. Motion is affected by lower limb disability, which can also influence hand handling (9).
2. Visual disability- A limited ability to see that cannot be corrected through conventional medical treatments. Can range from modest to severe cases; vision impairments include scraped corneas, glaucoma, cataracts, and so on (10).
3. Auditory/hearing disability- This condition causes partial or whole deafness and can be caused by traumas or biological changes such as meningitis (11).
4. Cognitive/learning disabilities- Impairments in people that create learning difficulties and interfere with adaptive behavior, leading to intellectual impairments (12).
5. Speech disability- A disorder in which a person has trouble forming speech and making the sounds needed to communicate with others, which can be caused by genetic defects or brain damage (13).
6. Invisible/hidden disability- Disabilities that are predominantly neurological and are not easily detected. Chronic illnesses, brain damage, and other factors can cause hidden impairments. It can be difficult to identify this disability (14).

This study aims to better understand the lives of disabled people in rural areas, as well as how poverty can contribute to the severity of disability and other socioeconomic repercussions.

Materials and methods

A cross-sectional study design was adopted, with 265 participants chosen from 40 towns based on disability. This was significant in describing existing disability features in Chakama. Multiple variables, including age, gender, education, and poverty, were examined to determine how they affect PLWDs. The study had to be undertaken in Chakama, a neglected rural setting in Kilifi County, Kenya's coastal region, due to the frequency of disability and neglect documented in rural communities, where disabled people battle for survival (15).

Previous studies have not specifically focused on the relationship of poverty to the lifestyle of PLWDs in rural settings from stigmatization and living in poverty, which has generally affected their living conditions, so there is a need to dig deeper on root causes and possible solutions in improving their socioeconomic life to reduce poverty rate. The non-probability sampling technique (snowballing) was employed with the coordination of *Wazee wa mtaa* (locally known seniors within a neighborhood of ten households who are considered to know every member of the ten-household neighborhood) and disabled people who nominated other people they knew. Data was gathered via filling out interview questions, which were then fed into an excel sheet and the questionnaires were destroyed for the sake of confidentiality. The questionnaire information included demographic data, disabled living situations, and socioeconomic issues surrounding disability in the Chakama region. Adult participants and minors' parents or legal guardians provided informed consent. For the sake of credibility, field editing and cleaning were performed following the data collection process. Logical and ethical considerations, such as avoiding information collection by force and conducting the research project with authorization from village elders and the local chief, were carefully explored.

Results

Mobility and physical disabilities were the most common types of disability, affecting both adults and the elderly. Most of these incidents have been connected to aging, accidents, and long-term harm.

Many disabled respondents in this category reported having a low income and failing to follow up on medical examinations for conditions/injuries that have been medically advised for continuous monitoring, which worsens the condition and leads to impairment in the long run.

The handicap distribution changed somewhat by gender, with males accounting for 52.83% and females accounting for 47.17%. Accidents and trauma caused men to have higher mobility and cognitive limitations than women.

More than half of those polled were poor and had serious disabilities that prevented them from working or limited their possibilities.

Table 1 shows that at least 10% of the disabled had more than one type of disability, such as auditory and speech, mobility and cognitive, auditory and visual, and so on.

Figure 1 shows that the age group 0-14 years has the most diverse disability cases, with a high number of cognitive and head/brain related disorders, as well as many cases of congenital disabilities. Despite the fact that spinal cord abnormalities were rarely recorded, the distribution across three age groups (25-34, 35-54, and 55+) was found to be similar, with no instances reported at a young age.

Figure 2 depicts the gender distribution of disability.

Figure 3 shows that just 17 participants admitted getting aid/assistance from organizations such as CHEPs, KUHENZA, and others for food, housing, and education sponsorship at disability schools, indicating a need to invest more in education and care for the disabled.

Figure 4 demonstrated that just 8 of the 265 participants were enrolled in the National Hospital Insurance Fund, implying that the disabled face exorbitant fees in accessing health insurance money and are unaware of how it works.

Discussion

The study found an existing link between increased poverty and severe kinds of disability such as mobility and vision. The villages with the highest incidence and prevalence of disabilities were located across the river, where access to hospitals and other medical services is still difficult, increasing the likelihood of obtaining disabilities from accidents.

According to a study conducted in 56 developing countries, the poor are more prone to diseases than the rich, which is an indicator of the development of a health condition that leads to disability (16). Furthermore, poor health care and poverty were factors in the occurrence of more than one form of disability in an already impaired individual (17). It is worth emphasizing that due to poor work and education rates, more than half of the disabled are living in poverty, requiring them to rely on contributions, aid from families, well-wishers, and organizations, where they continue to receive less of this support, exposing them to terrible poverty conditions.

Furthermore, many risks have been linked to children's disability due to malnutrition (18), poverty, and poor health, which can result in cognitive/learning and brain/motor related disorders (19). According to the WHO Commission on Social Determinants of Health, inequality is one of the leading causes of poor health and disability (20). According to the findings of the study, the hypothesis on the relationship between poverty and the degree of disability was found to be valid, confirming earlier findings, and so combined effort and collective responsibility from governments, organizations, community members, and other stakeholders must be promoted and upheld.

Global aging has a significant impact on disability trends, with mobility disability growing with age. The increased disability rate among the elderly reflects the accumulation of health hazards on chronic illness and injury across the lifespan (21). The young and elderly are vulnerable to all forms of disabilities, which can be attributed to difficulties in identifying and characterizing disability due to a lack of culture and evaluation tools. Multiple hazards, such as weakened health, poor nutrition, and poverty, can all play a role (22). Empirical study has also indicated that PLWDs and their families are more likely than non-disabled people to face socioeconomic issues (23).

Limited knowledge and understanding of PLWDs' rights by service providers, poor implementation of policies and regulations governing PLWDs' needs such as outreach services, and participation in policy formulation decision-making are among the barriers to PLWDs' socioeconomic growth in the majority of low- and middle-income countries (24). According to Zaidi Burchardt 2005 (25), villages with a high rate of disability are more likely to face financial difficulties as a result of additional costs such as medication for an epileptic individual and other medical associated costs, requiring more money to achieve the same outcomes as non-disabled.

Resources that may have been used for other purposes end up being used for disabled medical care (26) resulting in bad housing, poor nutrition, and so forth. A health-related evaluation on stigma established consequences to be similar in numerous countries across health problems (27), and community members lack correct comprehension of PLWDs' abilities and skills (28).

Table 1. International Classification of Functioning (ICF) and Health

Body function	Activities & Participations	Body structure	Environmental factors
Cognitive and mental functions	Learning and knowledge application	Eye, ear, and related structures	Technology and products
Speech, sound and voice functions	Communication	Movement structures	Natural environments and man-made changes to environment
Pain and sensory functions	Mobility	Voice and speech structures	Attitude, support and relationships
Skin, neuro-skeletal functions	Self-care	Cardiovascular, immunological and respiratory structures	Service, system and policies
Cardiovascular, reproductive and respiratory functions	Community and social life	Structure of nervous system	
	Interpersonal interactions and relationships		

Table 2. Gender and age distribution of disabled in Chakama

Gender		Age distribution of disabled	
Male	140	0-14	70
Female	125	15-24	38
Total no of disabled 265		25-34	34
		35-54	44
		55+	51
		Unknown	28

Table 3. Distribution of Types of Disability in Chakama and National (Kenya)

Type of disability	Frequency	% Chakama	% National
Mobility and physical	101	38.11	26.2
Invisible/hidden disability	15	5.66	-
Visual	41	15.47	19.09
Cognitive/learning	35	13.21	8.2
More than one form of disability	25	9.43	-
Head/brain	32	12.08	-
Auditory	24	9.06	12.4
Spinal cord impairment	6	2.26	-
Auditory & speech	5	1.89	-
Speech	4	1.51	10.6

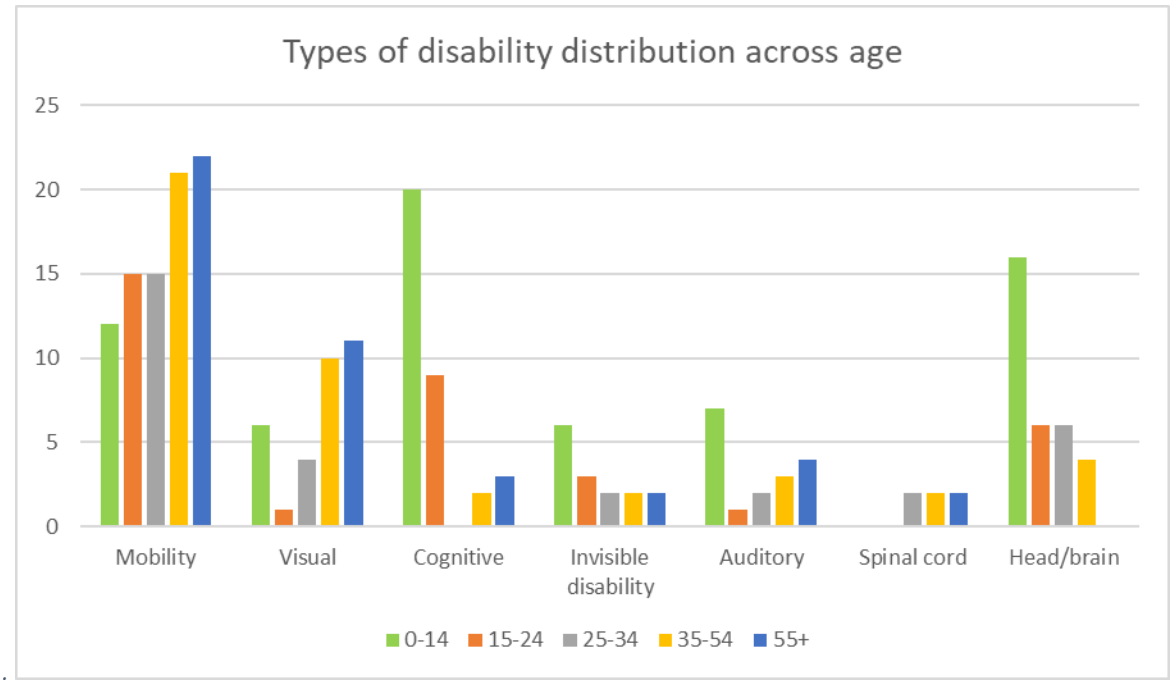

Figure 1. Distribution of disability in different age groups, Chakama, Kenya

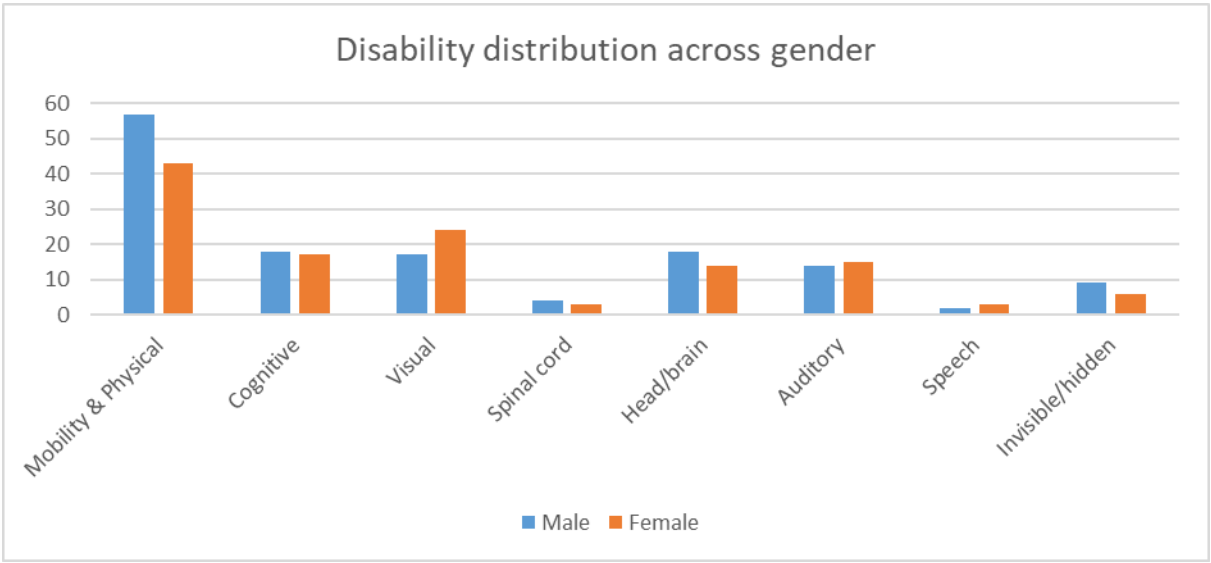

Figure 2. Distribution of Disability among genders, Chakama, Kenya

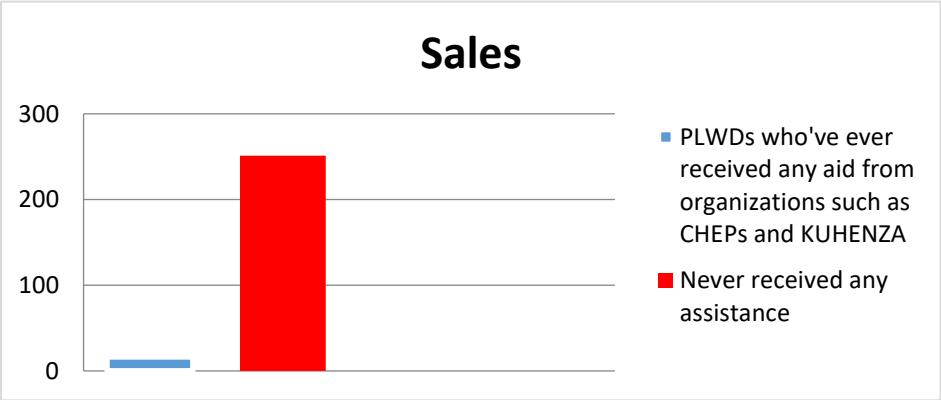

Figure 3. Number of disabled who've received assistance in terms of housing, food and education.

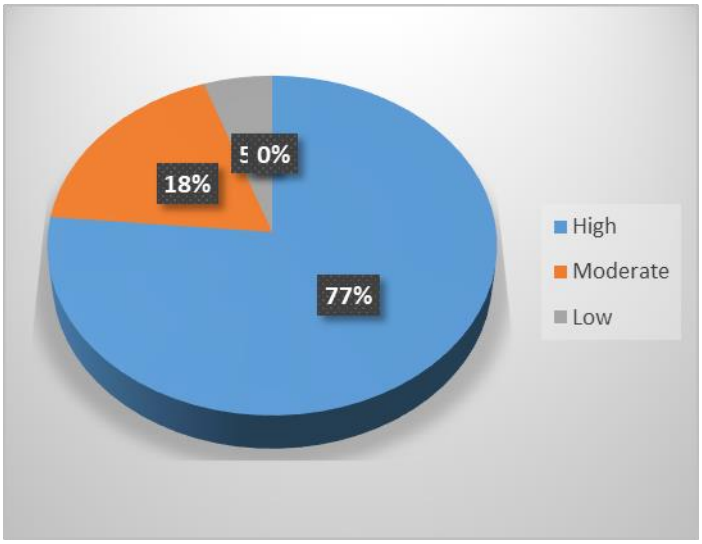

Figure 4. Severity of disability to employment and registration of disabled on NHIF

According to the World Bank report on disability, households with disabled members had fewer assets and poorer living conditions than non-disabled households. Further research is also required on the quantification of expenditure among the disabled in order to establish programs and studies on facilities intended to improve life conditions for the impaired, such as existing disabled schools, and how they contribute to disability management.

Depending on the type and level of impairment, PLWDs require a wide range of personal care services ranging from minor to large, basic to complex. The study confirmed that PLWDs in the Chakama location are only marginally recognized by relevant bodies; more than half of the disabled lacked a National Council for Persons with Disabilities registration number, limiting their access to resources meant to assist them; and they are greatly suffering from the effects of Covid-19, which has disproportionately affected PLWDs in accessing medical services such as vaccination, as well as a

lack of information on NHIF, which is also inaccessible to them.

Article 25 of the United Nations (UN) Convention on the Rights of PLWDs states that PLWDs have the right to the highest attainable standard of health without discrimination on the basis of disability; the article goes on to state that health services should be established as close to people's own communities as possible, including rural areas; however, the state on the ground shows that little effort has been made to provide quality health services to PLWDs.

This study found that the emergence of disability in a person or group results in a considerable rise in poverty level (29) as compared to non-disabled living conditions. In Chakama, there is a societal and cultural concept that stigmatizes and discriminates against PLWDs, resulting in mental health issues and contributing to the neglect of the crippled.

Conclusion

In conclusion, disability is a human rights issue (30) that requires community-based rehabilitation through coping training for communities and families, as well as practical guidelines on how to implement foundational rehabilitation interventions among people with various types of disabilities (31).

Conflicts of interest: The author claims that he has no competing interests.

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