

UNIVERSITY OF NAIROBI

**DEPARTMENT OF SOCIOLOGY, SOCIAL WORK AND
AFRICAN WOMEN STUDIES**

**EXPLORING SOCIO-ECONOMIC FACTORS INFLUENCING
FOOD INSECURITY AMONG OLDER WOMEN WITH
DISABILITY LIVING IN INFORMAL URBAN SETTLEMENTS:
A CASE OF DAGORETTI SOUTH CONSTITUENCY, KENYA**

BY

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**A research project report submitted in partial fulfillment for the
requirement of the award of a Master of Art Degree in Advanced
Disaster Management of the University of Nairobi.**

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DECLARATION

This research project is my original work and has not been submitted for an award to any other University of institution of higher learning

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This research project has been submitted for examination with my approval as the supervisor



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DEDICATION

I dedicate this project to the families in Dagoretti South constituency in Nairobi who offered their time and welcomed me in their homes to carry out this study. Special dedication to the staff and members of the KARIKA community-based organization, for being a part of this study and providing their expertise and experience on the subject matter.

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ABSTRACT

The main objective of this study was to investigate the extent to which socio-economic factors within the context of the triple burden of gender, old age, and disability among women frames food insecurity as an ongoing disaster risk. The study was contextualized in an informal urban settlement in the capital city, Nairobi. Dagoretti constituency provided the study with a conducive environment. The objectives of the study were, to identify the challenges faced in accessing food by older women living with physical disability, to examine the role of existing income options and social networks in addressing their food insecurity, and to thematically analyse the role of intersecting vulnerabilities in compounding food insecurity as a disaster risk. The study was guided by three theories namely the intersectionality theory, social feminist theory, and the vulnerability theory. This study adopted a descriptive qualitative approach targeting older women above 60 years living with physical disabilities, in Dagoretti South's informal settlements. To augment findings, the study also interviewed staff from older persons and community-based organizations in the area who work directly on outreach interventions targeting older persons with disabilities as key informants. The primary study participants were purposely identified from the areas chief's database of persons with disabilities. Using in-depth interviews, focus group discussions, key informant interviews and participant observation data was collected and analyzed by means of Nvivo 9/12 software. Themes and categories conceptualized from the data were organized to provide support for discussion responding to the research questions. Study findings indicate that, that lack of income is one of the main factors affecting food security among older women living with disability in the study area. Additionally, poor health, a rising cost of living in urban areas and reduced food quantities in the market were cited as reasons for household food inaccessibility and insecurity. The study concluded that older women with disabilities face increased food insecurity that is compounded by multiple factors beyond their control including lack of income, poor health, lack of family support, lack of safety and security and a lack of access to resource owing to immobility. Additionally, these vulnerabilities intersect at individual, social and environmental levels. Social protection and familial care that would normally cushion disabled older women against food insecurity fell short of addressing this crisis due to limited coverage, small amounts of cash transfer (Kshs 2,000), a lack of targeting in social protection programs like Inua Jamii, neglect and abandonment by family members. In conclusion, among older women with disability intersecting vulnerabilities enhanced risks to food insecurity. Therefore, if these factors are not mitigated, the vulnerability status exacerbates food insecurity. This study recommended that the government of Kenya ensures that older women living with physical disabilities in Dagoretti South constituency were targeted to benefit from older persons cash transfers. The role of older persons community-based organizations in addressing food insecurity was commended and hence the study recommends increased funding to such organizations, to increase their coverage in the community. The government should have a policy framework food distribution in informal urban settlements targeting vulnerable groups like older women with disabilities, The government should ensure that older women with physical disabilities have access to health care to break the cycle of disease and hunger.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

This chapter presents an outline of the factors influencing food insecurity among older women living with disabilities in informal settlements globally, regionally, and locally. This study highlights the effects of hazard events like food insecurity and the disproportional effects they have on older women with disabilities owing to the progression of vulnerability that comes with age and susceptibility to disaster risk associated with gender and disability. Food insecurity as a disaster risk increases vulnerability especially to groups that are already facing existing risks of food shortage like older women with disability. In addition, this chapter includes a statement of the problem, main and specific objectives of the research, research questions, justification, scope, and limitations of the study.

Older people face increased disaster shocks, a key one being food insecurity. Among older people food insecurity refers to their inability to acquire or consume sufficient or adequate food which negatively affects their ability to live a healthy life. Food insecurity among older people follows a progression of severity, starting with compromised diet quality, socially unacceptable meals, use of emergency food strategies, food anxiety and eventually hunger (Wolfe et al., 2003).

Aging is sociologically defined by Little (2013) as the “combination of biological, psychological and social processes that affect people as they grow old”. Growing old is an intricate and steady process that entails biological, psychological, mental, and social factors which at times doesn’t coincide with a person’s chronological age. Old

age comes with significant disadvantages that includes lower-income, prejudice, and therefore, like gender dynamics and racial factors, old age is a factor of social stratification (Little, 2013). According to Bennet, (2016) there were 378million people over 60years in 1980, this number has tripled in 2015. The projection is that older persons over 60 years will increase to 2billion in number making up 21% of the world's population by 2050. In Sub-Saharan Africa the trend shows that an estimated 46million people were older persons in 2015, and by 2050 this number is estimated to raise to 161million. (Bennet et al., 2016). In Kenya an estimated 4.5% of the population are older persons and this is estimated to double by 2050.

Disasters that are caused by natural hazards are not the greatest threat to human beings, a bigger proportion of the world's population lose their lives to undocumented hazards events including: hunger, violent conflicts, and illnesses. In understanding disasters, it is critical to point out that they do not happen only due to natural events but can also be caused by the product of social, political, and economic events. Vulnerability of different groups to such disaster events should be measured in terms of damage to future livelihoods (recovery) and not just the destruction of life and property during disaster events (Lopez et al., 2014). Vulnerable groups find it hard to reconstruct their livelihoods post disasters making them more vulnerable to future shocks (Lopez et al., 2014). Physical well-being of older persons is expressed in terms of their functional capacity, the fact is that disability increases with age. The capacity of older persons is looked at in terms of managing to conduct daily living activities including bathing, grooming, ability to feed oneself. Older persons experience four key elements of vulnerability that increases their susceptibility to disaster shocks including physical decline that comes with ageing in terms of poor health, sight,

mobility, and hearing. Lack of provision of sufficient services targeted to older people both on daily basis and during emergencies depicting age discrimination that excludes older persons in turn violating their rights. Increased poverty levels among older persons that is enhanced by lack of social protection mechanisms and livelihoods opportunities. All these reduce the ability of older persons to adequately prepare for disaster and recover from it e.g., struggling to stockpile food stuff, water. Those living alone and away from family tend to live in poorly built houses making them more prone to disaster shocks and its effects (Hartog, 2014). According Garschagen and Micheal (2015), extreme natural or manmade events turn into disasters when people are vulnerable and poor, this prevents them from cushioning themselves from devastating impacts. Food insecurity makes up one of the causes of vulnerability especially when sufficient food was already lacking before a disaster, this further access barriers to food for vulnerable groups like older persons.

Food insecurity as an emergency affects persons with disabilities differently due to their lack of economic diversification options which makes it harder to tap into alternative livelihoods options to access food (Rohwerder, 2020). Older persons' vulnerability to food insecurity can better be understood through the intersectional approach. This approach recognizes that a combination of multiple individual characteristics and environmental and/or societal factors interact to influence a person, roles and responsibilities, access and control over resources, life experiences, and capacity to respond to shocks and barriers to life (Bridgen & Ahluwalia, 2020). Among older persons food insecurity is seen in multi-dimensions, functional impairment, poor housing, social isolation, gender dynamics, financial vulnerability,

poor health all have a bearing on food insecurity. About 23% of global disease burden can be attributed to conditions that affect older persons, this is due to chronic illnesses among this age group. chronic illnesses affect older persons ability to shop for food, carry food home, prepare meals affecting their access to food just like financial vulnerability. Poor dietary intake on the other hand influences increased malnutrition, frailty, disability, and poor health outcomes compared to one who consumes a healthy diet. This in turn increases older persons vulnerability to disaster shocks due to pre-existing vulnerabilities. (Simone et al., 2018). According to Ganhao-Arranhado (2021), global studies on food insecurity among older adults is scarce in most countries. Despite this data gap, food insecurity trends among older persons is still alarming with approximately 4.8million older persons above 60years in the United States of America being food insecure. In Mexico an estimated 67% of older persons above 60years were experiencing some level of food insecurity while 23% older persons in Portugal were considered food insecure. In Africa, household food insecurity information among older persons is a challenge although a study in South Africa showed that 50% of the households with older persons 60years and above were food insecure, population growth rates in Africa already exceed food production, this forces most of the of the Sub-Saharan countries into food crises whenever there is bad weather conditions, conflict and drought, older persons who rely on land for their food suffer food insecurity during seasonal food shortages (Charlton and Donald, 2001). In Kenya food insecurity is seen to be linked to increasing poverty levels, recent world bank estimates indicate that by 2020, urban poverty will represent almost half of the total poverty in the country, the socio-economic status of urban households impacts food access, of these 22% of households headed by older persons in poor

urban areas are considered food insecure compared to 12% of those headed by non-elderly (WFP, 2020). Urban poor households including those in Dagoretti South informal settlements face challenges of food insecurity due to economic access challenges due to the lack of income or low paying earning that weakens purchasing power, physical access is a challenge for vulnerable groups like older persons who have to rely on others for assistance, some of the older persons either lack care givers and are left unattended and have to bear hunger helplessly, during food distributions in the urban poor settlements including Dagoretti South older persons face challenges since they are not given special consideration and owing to physical aggression, scrambling that characterize the food distributions (APHRC, 2019).

Ageing and gender are two interlinked concepts. Gender is associated with sex-related biological differences as well as social aspects (Prus and Gee, 2003). Gender inequalities in old age result from accrued gendered disadvantages during life. A life course approach to dealing with old age and gender is critical because current socio-economic, gender relations of older people is a reflection their prior life course (UNECE, 2009).

According to the United Nations department of Economic and Social Affairs (2021), currently 15% of the world's population live with one or more forms of disabling conditions. Above 46% of older persons above 60 years have some form of disability. Increased disability rates among older persons owing to long-term health risks, chronic diseases and injuries contribute to the higher disability rates among older persons. Persons with disabilities face obstacles like environmental, institutional, attitudinal barriers that hinder their full and equal participation in all life aspects, older

persons with disabilities face adverse age-related barriers in their society. The Kenya National Housing and Population census, 2019 reports that, the overall disability rate in Kenya is 2.2 percent which is up to 918,270 persons with disabilities. According to the global disability rights organization the most prevalent disability type in Kenya is physical/mobility disability at 30percent, women with disabilities make up 50.4 percent of total persons with disabilities. The Kenya constitution of 2010 assures all its citizen a right to a full life enjoying all fundamental freedoms and rights, this includes persons with disabilities. Women with disabilities are treated differently mainly due to their gender. The intersection of age, gender and disability compound the discrimination already experienced by women and this is made more difficult by the way society perceives, interprets, and reacts their status.

Food insecurity in a community exists when all the population, do not always, have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs as well as food preference for an energetic and healthy life (FAO, 2008). Food access is one of the key drivers of food insecurity in informal urban settlements, especially due to the absence of purchasing power. The informal urban settlements are vulnerable to food insecurity, low dietary quality, poor households in urban areas depend on their ability to purchase food to ensure adequate food (Wanyama et al., 2019).

Older person's income options reduce because they do not work and, in most cases, lack continued income. This place older persons at a risk of rising cost of living which put them at an economic disadvantage and low socio-economic level. Older women face more income insecurity due to wage discrimination and having to leave work for

caregiving. Old age income can be in the form of wages, work-sourced income, family and community support, government transfers, investments, and savings. Income disparities in old age emanate from economic inequalities that individual's experience in their life course (Henry & Golman, 2021). Most middle-income countries like Kenya have minimal impact on income security in old age, especially in contexts of high informality and lack of employment. In Kenya, the government has recognized the importance of Social Protection as essential for poverty reduction and inclusive growth. The Kenya government has put in place schemes to specifically support older persons, through Older Person's Cash Transfer (OPCT). The Kenya government has also put in place cash transfer for persons with severe disabilities (Republic of Kenya, 2020).

Low-income areas, including informal settlements have enhanced vulnerability owing to overcrowded living conditions, poor infrastructure, unsafe housing, such conditions can quickly turn a hazard into a disaster with significant negative impacts including disability, food insecurity. Urban poor are more susceptible to the more frequent occurring low to moderate intensity shock events, like flooding and fires that have significant impact on their lives and livelihoods. Other factors that affect the sensitivity of urban poor to disaster risks include lack of income security, social networks which are key for some communities to work together to build resilience to shocks at the local level (World Bank, 2011).

1.2 Problem Statement

Disability, gender, and old age intersect to create vulnerability, due to the interaction between impairment, social, and environmental factors that determine how one

experiences all spheres of their lives (Brigden & Kanwal, 2020). Older women with disability are disproportionately affected by disaster risks like food insecurity owing to conditions associated with old age and disability including lack of physical strength, lack of access to basic services (APHRC, 2017). Older women with disability are among vulnerable groups that experience most socio-economic barriers which contribute to disaster vulnerability. In times of food crisis this group may have specific needs which if not addressed can be life threatening including protection, dietary, hygiene, transport, and information needs (CBM, 2011).

The sustainable development goals of 2030 span three dimensions of economic, social, and environmental development (Tebbut et al., 2016). At the center of the seventeen goals is the pledge that no one will be left behind and the need to reach the furthest behind first. Older persons, women and persons with disabilities are among the groups of people who are left behind in most cases. Without assistive products these vulnerable groups are often excluded and stay in poverty and isolation, face increased impact of functional decline, and diseases. Most older persons often live with disability because of chronic illnesses. This vulnerable group are overrepresented among the poor and are vulnerable in situations of natural and man-made disasters including food insecurity (Tebbut et al., 2016).

Old age is a phenomenon that is defined and perceived variedly by different cultures and societies, age 60 and above is mostly used as a cut off age to express older people (Mberu et al., 2006). Statistical data from disaster studies citing recent crises and emergencies indicate greater vulnerability of older persons for example highest age-related death rates because of the 2004, tsunami was among adults 60 years and

above, (WHO, 2008). Active ageing is dependent on several social, structural, and material determinants that impact individuals, families, and communities, all these interact to determine how resilient or vulnerable people become as they grow old. Older persons are affected by their geographical locations including presence of hazards in their environment, poor housing, limited access to clean water and safe food. Older persons living in precarious environments and those who have disabilities face increased risk (WHO, 2008).

Recent research indicates that socially isolated older persons are more vulnerable to hazards and social losses, and they are in most cases invisible in emergency responses. During emergencies older persons may not be able to protect themselves and during recovery might not be able to obtain benefits due to illiteracy. Older persons in emergencies also face exclusion from benefitting from emergency relief because of, mobility, resource, communication barriers, thus increasing their suffering, and erosion of their livelihoods (WHO, 2008). Poverty among older persons predisposes them to sickness and increased disability risk than their counterparts with higher income. Older persons with low income rely more on public and charitable supports and services which in most cases are inadequate to meet their immediate needs or support disaster recovery. Undocumented hazards events including hunger, violent conflicts and illnesses are overlooked in most cases. Vulnerability of different groups to such hazard events should be measured in terms of damage to future livelihoods (recovery) and not just the destruction of life and property during disaster events (Lopez et al., 2014).

Older persons in Kenya face high poverty levels affecting their access to food, shelter, and health services (Olum, 2009). Lack of access to proper food and nutrition also exacerbates older persons poor health in turn limiting their participation in social and economic activities. There is general assumption that older people are taken care of by their extended family and community, the reality in some cases is that families disintegrate in search of income opportunities, community support systems are also weakening such that the elderly are no longer taken care of or respected further isolating and increasing their suffering (Olum, 2009).

Human capital in informal settlements is low, most older people lack secondary education, gender differentiation to this issue is higher in women, older women are less likely to have attended school in informal urban settlements (Baird, 2013). Urban areas are characterized by a diverse social group, different ethnic groups, this social diversity means that social relations and networks are less developed, this lack of social capital hinders the livelihood and coping strategies for older persons in poor urban settings (Esuna, 2017).

Older persons lives are shaped by the gendered nature of aging, while older women and men face multiple challenges of ageing like ageism when they grow old. Older women experience aging impacts differently (UN Women, 2020). According to UN Women age and inequality report (2020), gender-based discrimination and inequalities are exacerbated at old age. Ageism and sexism stereotypes greatly aggravate discrimination and inequality among older women with assumptions like frailty, lack of ability, dependence, and passivity. Intersecting factors such as race, sexual orientation, ethnicity, religion, gender identity, nationality compound the risk

of gender inequality and discrimination in old age. Inequalities faced by older women are because of accumulated barriers over the years, which are only exacerbated by ageism and age discrimination. Older women as a result are denied their fundamental rights and freedoms.

Old age survival is an understudied area in Sub-Saharan Africa. Kenya's informal settlements show gender differences in livelihoods strategies, women and girls normally take up domestic chores and childcare and face limited economic opportunities than their male counterparts (Bennet et al., 2016). Older women in informal urban settlements face varied challenges to accessing food, physical access to food is constrained due to mobility challenges occasioning overreliance on others for assistance (APHRC, 2019).

Among older persons, functional impairment, poor housing, social isolation, gender dynamics, financial vulnerability, poor health all have a bearing on their food insecurity. About 23percent of global disease burden can be attributed to conditions that affect older persons, this is due to chronic illnesses among this age group. These chronic illnesses affect older persons ability to shop for food, carry food home, prepare meals affecting their access to food just as would financial vulnerability. Gender inequality is a critical underlying risk of increasing women's vulnerability to disaster crises (UN Women, 2022). Women and girls of all ages including older women affected by crisis be it climate change, food insecurity, conflict, face violence and exclusion due to pre-existing gender-based discrimination and disadvantages which has implications on their ability to survive disaster risks (UN Women, 2022). Gender based violence cases increase in the wake of disasters and marginalized groups including older women are typically excluded from disaster risk reduction

processes especially in contexts and communities where certain identities are legally and socially discriminated against (Mc Sherry et al., 2014).

According to Kabare (2018) disability is part of life and everyone faces temporary or permanent disability in their lifetime. This might be due to natural causes like ageing, or due to shocks and crises, Kabare (2018) further adds that physical impairments make up the highest proportion of persons with disability in Kenya. The proportion of women with physical, self-care and other impairments is higher than that for males, this increases with age particularly women aged over 60years in Kenya. An analysis of disability types in Kenya show that mobility or physical disability is the most reported difficulty, up to 0.4million Kenyans accounting for 42percent of people with disabilities (D.I, 2020). Globally 2.9percent of the population have severe disability while 12.4 percent have moderate disabilities. Low-and middle-income countries depict higher disability prevalence rates than high-income countries. Kabare (2018) posits that Persons with disability face many barriers in accessing employment and social services. Stigma and discrimination compound the barriers preventing persons with disability from equally engaging in the society. The 2009 population and Housing census, show 67percent of persons with disability live in poor households (Rohwerder, 2020). Poverty level in households with persons with disability in rural and urban areas is a concern and this is contributed by lack of employment opportunities.

Initiatives to increase older persons' income like cash transfer have had limited and inadequate coverage. Thereby affecting the ability of older persons living with disabilities to access social protection and address their basic needs. Only recently

calculations of the amounts of money disbursed to older persons showed that payment amount did not reflect escalating food prices (Utafiti Sera, 2016). On the other hand, old persons cash transfer “inua jamii” has been harmonized but it fails to consider the fact that households with persons with severe disabilities or other diversities face additional costs owing to their impairments and increased needs (Kabare, 2018). The Kenya Human Right report of 2019 to the UN special rapporteur indicates that older person’s cash transfer provides for specific criteria of eligibility which include older person above 65years, poor and vulnerable, the beneficiary or household should not be enrolled in any other cash transfer, they must not be receiving any pension, income or in gainful employment. There is no inclusion of disability as a criteria due to blanket targeting even though included older persons with disability don’t get additional transfers beyond the 2000kshs or special consideration in the social programme (KNHRC, 2019).

Through the lived experiences of Women living with physical disability in the informal urban settlements of Dagoretti South, this study seeks to find out how socio-economic factors and the triple burden of intersecting vulnerabilities of gender, old Age, and disability exacerbates food insecurity among older women with disability with a view of increasing resilience to food insecurity as a disaster risk.

1.3 Objectives of Study

1.3.1 Main Objective

The main objective of this study was to investigate the extent to which socio-economic factors within the context of the triple burden of gender, old age, and

disability frames food insecurity as ongoing disaster risk among women with disability in Dagoretti South informal urban settlements.

1.3.2 Specific Objectives

- 1 Identify the challenges faced in accessing food by older women living with physical disabilities in the informal settlements of Dagoretti South constituency
- 2 Examine role of the existing income options and social networks in addressing food insecurity among older women with physical disabilities in Dagoretti South constituency
- 3 To thematically analyse the role of intersecting vulnerabilities in compounding food insecurity as a disaster risk

1.3.3 Research Questions

1. What challenges do older women with physical disabilities face in accessing food
2. Why do existing income options and social networks including (older people's cash transfers, wealth ownership, community care, familial care) fall short of reducing food vulnerabilities among older women with physical disabilities in Dagoretti South constituency.
3. How do the intersecting vulnerabilities experienced by older women, with physical disability, frame disadvantages and increase food insecurity among them?

1.4 Significance of the Study

By elucidating the linkages and connections between socio-economic factors: income and social networks within a context of triple burden of old age, gender and disability

among women, this study sought to show how the aforementioned factors impacted food insecurity in Dagoretti South Constituency. Considering the disaster risk management cycle, contingency, preparedness, mitigation, response, and recovery/resilience this study highlighted food insecurity as an ongoing disaster risk with a focus on promoting better preparedness and response capacity of older women with physical disabilities in informal settlements. The study used the case study of Dagoretti South Constituency in Nairobi County, Kenya. Due to its peri urban nature the challenges faced in its informal settlements are masked due to mixed settlements thus lacking attention and response programs. The study used qualitative research methods as this was deemed appropriate to provide unique depth and understanding of the target group, as respondents would be able to freely present their experiences, and thoughts without limitations.

The study sought to enrich the existing body of knowledge on drivers of food insecurity among older women living with disabilities with a focus on intersecting vulnerabilities scarcely considered in studies. Although a relatively large body of research existed on older persons related factors leading to food insecurity, fewer research focused on intersecting factors including social-structural, gender dynamics, and disability and the impact these had on food insecurity. The study aligned to the global Sustainable Development Goals (SDGs) of 2030, ventilating on five of the goals; one, two, three, five, ten and most importantly the pledge to leave no one behind. The study provided insights on the lived experiences of older women with disabilities, thus adding value to in-country indicators on attaining the sustainable development goals, with focus on addressing food insecurity among vulnerable

groups. On gender and leaving no one behind this study sought to highlight the role and agency of older women in contributing to food security and promoting resilience at household and community level.

At a global level the study would contribute to growing body of studies that seek to understand the gendered factors driving food insecurity among women with a focus on older women living with physical disabilities. Additionally, a study by the Food Research & Action Center that focused on ‘Hunger as health issue for older adults highlights key vulnerable groups at a greater risk of food insecurity including older persons with disabilities, widowed, divorced, those with low income and minority ethnic groups. Although these groups have been identified as most vulnerable the gap remained in addressing the intersecting vulnerabilities that this study intended to explore and assess the impact, they had on food insecurity. At a regional level, studies assessing drivers of food insecurity among older persons focused on relations between food insecurity and perceived stress among older persons in low-income countries. There remained gaps in taking an intersecting approach to vulnerability of older women with disabilities. This study therefore intended to explore the drivers of food insecurity among older women with physical disabilities living in informal urban settlements as an on-going disaster risk. In its findings this study identified several variables including lack of income source, poor physical and mental health, availability, or lack thereof of social networks to address food insecurity, poor security, lack of access to resources, lack of access to food as key variables intersecting at varied intensities to exacerbate food insecurity situation among older women with physical disabilities. Due to the complex nature of intersectionality and

the need to express the layering of challenges experienced by older women with physical disabilities all these variables were presented to show the extent of vulnerability of the group under study.

1.5 Scope of the Study

This study was conducted in an informal urban settlement in Dagoretti South Constituency in Nairobi, Kenya. Although Dagoretti South has up to six villages the study only focused on Waithaka, Riruta, and area near Kawangware-Ngando this was directed by the Deputy County Commissioner in Dagoretti since there was a parallel food security study on-going in the sub-county during the same time. The focus of the study was on the socio-economic factors that drive food insecurity among older women with physical disabilities and it limited itself to establishing key factors such as, food access challenges, access to income and social networks among this group and their contribution in addressing food insecurity, and further, how these factors intersect in compounding food insecurity.

1.6 Limitations of the study

The study limited its target to older women with disability using chronological age, women 60years and above. The study only focused on physical and mobility impairments as a category of disability to limit the target population. Translation was required for some of the in-depth interviews and the focus group discussion which at times loses the meaning of responses provided by study participants, this was overcome by first agreeing with the translators to always report the responses in exact words as presented by the respondents. Since the study was conducted during escalated food prices some of the respondents were unwilling to engage since we

were not offering any support in terms of food, this was overcome by using the outreach point persons identified by the chiefs to explain the purpose.

1.7 Definition of terms

Food insecurity: this concept in the study area of Dagoretti South means the inability of a household to purchase food, or access food in the market due to lack of income or low income that undermines their purchasing power and disability that limits movement to market.

Informal urban settlement: in Dagoretti South, informal urban settlement can be described as semi-permanent houses built by either iron sheets, wood, or bricks with iron roofing that are with well-defined paths and both permanent and semi-permanent roads, which slightly different to other informal urban settlements in Nairobi in terms of set-up.

Social protection mechanisms: available social networks and programs in the area that support in addressing poverty, provide food distribution, provide cash transfers, or group savings and loaning.

Physical disability: any condition that affects older persons movement and body control affecting their ability to participate in daily activities like walking, shopping, cooking, cleaning

Older person: any individual who is 60years and above regardless of social definition of older persons in the community.

‘Chakula ya chief’- community’s reference to government food distribution done through the chief’s office to vulnerable members of the community, including older persons and persons living with disabilities.

‘Wazee wa kijiji’-community elders appointed by the chief to support government outreach activities and support community mobilization for government programs including cash transfers and food distributions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This study reviewed literature that detailed the triple nexus of gender, old age and disability and how these vulnerability risks exacerbated food insecurity among older women with physical disabilities. The first part expounds on the different vulnerability risks and their contributions to food insecurity, including the intersecting nature of vulnerabilities faced by older women with disabilities, focusing on global, regional, and local trends. The literature shows linkages among study topic with the global Sustainable Development Goals. The study depended on a theoretical framework and a conceptual framework to elucidate the links between food insecurity and vulnerability factors associated with old age, gender, and disability.

2.2 Challenges faced by older women Living with Physical Disability in Accessing Food

Older women with disabilities in informal urban settlements face challenges in accessing food and these fall in three broad areas access barriers including economic access, physical access, and social access. Economic access is because of a lack of income or meagre earning that reduces the capacity of older women with disabilities' households from purchasing food. Physical access is caused by inability to venture into markets to access food because of immobility, older women with disabilities would therefore have to rely on the assistance of others, those without caregivers or whose caregivers had to engage in income activities were left unattended and had to bear the pangs of hunger. The high level of insecurity in the informal urban

settlements limits physical access to food, older persons are worst affected by insecurity due to their physical incapacity that limits their ability to defend themselves from aggressors. Older women with disabilities face increased risk of rape, theft and violence when attempting to access food from certain locations. Social access barriers to accessing food can be associated with cultural, religious factors that act as powerful behavioral determinants of food access dictating food preferences or influencing the avoidance of certain foods (APRHC, 2019).

The Kenya national food and nutrition security policy of 2011, indicates that two thirds of Kenya's non-agricultural workforce lives in urban and peri-urban areas and engage in informal income activities with low wages, the poorest and vulnerable urban and peri-urban dwellers lack employment opportunities, face health and nutrition risk necessitating food security monitoring and direct interventions to support their food access. The policy proposes options to promote urban employment and improved access to food through for example supporting income generating capacity of people with special needs or vulnerable groups like persons with disabilities, older persons. The policy also states that 10% of older persons need assistance to access adequate food and the government commits to improve social safety net programs to ensure older persons food security (Government of Kenya, 2011).

According to Ziegler (2009), the right to food is a human right, which indicates that all human beings have a right to live in dignity, free from malnutrition, hunger, and food insecurity. He further argues that right to food is not about charity but ensuring that all people always have capacity to feed themselves with dignity. This right to food is protected under international human rights and humanitarian laws which

include article 25 of the universal declaration of human rights and article 11 of the international covenant of economic, social, and cultural rights, the main elements of the right to food include availability, adequacy, and accessibility (economic). The right to food obliges the legal states to respect people's right to food, protect its citizen's right to food by preventing any violations to the right to food, fulfil the right to food by ensuring people's access and utilization of resources that enable them to feed themselves.

Kenya Ministry of labor and social protection report on disability awareness (2020), defines disability as including any physical, mental, psychological, sensory, and other impairment, conditions, or illnesses. These conditions have significant long-term effect on individual's ability to carry out normal day to day activities. Studies on old age and disability identify risk factors for the onset of disability through main components such as: functional impairment, and physical impairment. Development and prevalence of disability is lower in older persons with socio-economic privileges as compared to their counterparts living in poor conditions. Development of disability is also associated with environmental factors including social support, physical characteristics of the living area coupled with older persons personal capabilities which influence the likelihood of becoming disabled (Heikkinen, 2003). According to Bigby (2004), social rather than the biological factors of growing old should be investigated for their significant impact on the lives of older people with disabilities. Bigby (2004), further depicts the multi-layered social contexts in which people grow old, these range from immediate relations family and friends, meso-level organizations and social services, macro social structural aspects. Each level of the social context impacts both directly and indirectly on the development, and

opportunities available to the older person with disabilities. Persons with disabilities in Kenya face several barriers in accessing employment and social services. Kabare (2018) posits that high poverty levels have strong correlation with disability and increased likelihood of food insecurity, poor health & sanitation. The Kenya constitution of 2010 assures all its citizen a right to a full life enjoying all fundamental freedoms and rights in its articles 10,27,43,54. Further the constitution requires all state organs and officers to promote non-discrimination and minimize barriers to access of equal opportunities for persons with disabilities in all life aspects, fair treatment, access to education. The persons with disability Act 2013 also provides for equal rights and opportunities for persons with disabilities. (Ministry of labor and social protection, 2020).

Older person's lives are shaped by the gendered nature of aging, while older women and men face multiple challenges of ageing like ageism when they grow old. Older women experience aging impacts differently (UN Women, 2020). According to UN Women age and inequality report (2020), gender-based discrimination and inequalities are exacerbated at old age. Ageism and sexism stereotypes greatly aggravate discrimination and inequality among older women with assumptions like frailty, lack of ability, dependence, and passivity. Intersecting factors such as race, sexual orientation, ethnicity, religion, gender identity, nationality compound the risk of gender inequality and discrimination in old age. Inequalities faced by older women are because of accumulated barriers over the years, which are only exacerbated by ageism and age discrimination. Older women as a result are denied their fundamental rights and freedoms including access to food. Context of vulnerability is key is

assessing social vulnerability to disasters, this concept is not uniform or universal even when considering different aspects of vulnerability including gender, age, ethnicity that is why women living in urban settings might experience the impacts of disasters in particular ways that do not apply to women in rural areas this is mainly be due to the fact that urban area present different social, political, environmental and economic structures (Kratzer and Virginie, 2016). There is a challenge of oversimplification of the complexities in which inequalities and marginalization shape resilience thus requiring a context specific and intersectional approach to assessing challenges faced by vulnerable groups including persons living with disabilities, older persons, children, and women and in turn leaving them out in disaster risk reduction initiatives (Chaplin et al., 2019).

There are four aspects to food insecurity, namely, food availability which relates to food production, food access which relates to economic means by which people access food through agricultural production, employment, and markets. Physical access to food relates to distances, infrastructure, and transportation. Food utilization relates to dietary choices, nutritional knowledge, food health and hygienic practices, cooking methods and cultural acceptability. Food stability exists when availability, access, and utilization of food is guaranteed always (Francesco et al., 2016). Incomes and food prices are critical determinants of food access in urban areas since most of the food consumed in urban areas is purchased, extremely poor urban households on average spend 50% of their budget on purchasing food thus increasing the economic pressure on urban poor (Ruel et al., 2017). According to Owuor (2017), a big number

of Nairobi dwellers rely on unpredictable and meagre daily earning for food purchase, therefore among low-income earners certain sections of these groups are more vulnerable including, orphans and vulnerable children (OVC), uneducated persons, migrants, and the elderly.

2.3 Existing Social Protection mechanisms (cash transfers, pension, family, friends, communal remittances, merry-go-rounds) and Social Networks in Addressing Food Insecurity

2.3.1 Older persons social protection

According to the UN women rapid gender assessment report of (2021), prior to the Covid-19 pandemic, older women's access to social pensions was limited to only 26% compared to 39% older men globally. This assessment further confirmed that older women's social protection coverage and targeting remained limited during the pandemic, with only 17% of older women being recipients of unemployment insurance as compared to 30% of their older men counterparts while only 12% of older women received cash or any in-kind relief.

Social protection policy agenda has potential to address household food insecurity, both directly and indirectly. In Africa social protection programs evolved out of other social safety nets like food aid, food for work, set-up to address food insecurity (Devereux, 2012). Social protection should aim to stabilize food access and food availability, through index-linking cash transfers so that poor households can retain their purchasing power even when faced with shocks like spike in food prices (Devereux, 2012). According to the United Nation's Department of Economic and Social Affairs report (2015) social security access in old age follow existing gender inequalities. This is partly due to gender-bias in the design of pension schemes, and

the fact that women participate less in the labor force and are mostly self-employed. The social protection targeting logic is based on the poorest, although this approach is not always compatible with Kenya's political, social, and institutional context, measuring vulnerability involves a degree of subjectivity that has resulted in various challenges including, targeting where local perspectives of the neediest is not fully considered (Knox, 2012). Uncertainty on eligibility criteria, undermines the acceptability of the programs, most of Kenya's social protection programs have revealed exclusion errors (Knox, 2012).

The Kenya older person's cash transfer program recognizes that older persons experienced high rates of food insecurity, in line with the vision 2030, the Kenya government in efforts to address poverty and implementing commitments around social protection in the bill of rights the government introduced a cash transfer programme for older persons targeting older persons who are 70years and above, which as at 2021 had reached 833,129 out of the 1.2million older persons above 70years (UNFPA, 2022). Before this the older persons cash transfer was piloted in 2007, targeting households that were extremely poor and had not been enrolled in any other cash transfer program, had no member receiving pension this was then transformed to the current universal pension available for all Kenyans over 70years of age (Kramon, 2019). The targeting and mobilization for this funding is usually done through constituency social assistance committees made up of area member of parliament and a select member that he/she appoints, and beneficiary welfare committees situated in villages, local chiefs and assistant chiefs who help in awareness raising on the cash transfer program and facilitate access to the program (UNFPA, 2022).

2.3.2 Older persons social networks

Social networks consist of connections and relationships that exist between individuals, groups, and institutions. These connections and relationships are based on three forms of social capital: bonding, bridging, and linking capitals. Bonding capitals are related to personal relations based on a sense of collective identities like family, close friends, bridging capital on the other hand go beyond shared identities and include distant friends, neighbors (Mpanje, et al., 2022). Older women living in informal settlements including Dagoretti South depend on social networks like neighbors, church groups, community self-help organization, group merry-go-round as some of the available options to address food insecurity (Mpanje, et al., 2022).

Poor urban households also rely on informal safety nets, including non-immediate family members, close friends and neighborhood networks based upon communal trust, collaboration, and mutual support (Ruel et al., 2017). Data is not always available on the type and strength of non-formal safety nets in urban settings because of weaker sense of community in urban areas, this weak social support networks coupled by the necessity to utilize cash for purposes of buying food contributes to significant insecurity and uncertainty for livelihoods and exacerbates food insecurity. Urban areas are characterized by a diverse social group, different ethnic groups, this social diversity means that social relations and networks are less developed, this lack of social capital hinders the livelihood and coping strategies for older persons in poor urban settings (Esuna, 2017).

Socially older persons' access to friends and family often diminishes, disability also erodes social networks such as opportunities for social engagement. Socially isolated older persons are more vulnerable to hazards and social losses, they are in most cases

invisible to emergency services. In emergencies older persons may not be able to protect themselves and during recovery might not be able to obtain benefits due to illiteracy. According to Blaike et al., (2004) disaster effects on vulnerable groups is usually measured through objectively verifiable indicators, like morbidity, mortality, and damage to property. This under-emphasize the cultural and psychosomatic and subjective elements of disaster impact to vulnerable groups including older persons. Livelihood's assessment should therefore look at resilience notions through the lens of social capital and collective action. This is because extreme shock events can significantly affect a vulnerable household's livelihood system including its access to food and affects its ability to recover and protect itself against other unrelated, shocks and/or stresses in subsequent times.

Social network is a person's web of social relationships which include kin, friends, and neighbors (Cherepanova et al., 2016). Family structure is still a key support source for older persons, this structure is changing rapidly in urban areas, therefore, the traditional support and care is no longer guaranteed, due to economic pressures, changing social values, meaning people are in most cases unable to take care of aging people (Kauka & Jackline, 2018). According to Mudege, and Alex (2009), women create social networks in their life course. Women in most cases both provide and receive emotional, informational, and financial support from close family members (Harling et al., 2017).

Poverty levels among older persons in informal settlements or high-risk zones contribute to them having less resources to mitigate against emergencies or recover from its effects. Older persons living in poverty are usually more sick and more

disabled than their higher income counterparts (WHO, 2008). Older persons with low income rely more on public and charitable supports and services which in most cases are inadequate to meet their immediate needs or support disaster recovery. Older persons in emergencies also face exclusion from benefitting from emergency relief with the assumption that they receive government social protection and /or pension (WHO, 2008).

2.4 The link between Sustainable Development Goals, Old Age and Gender

The 2030 agenda for Sustainable Development goals (SDGs) present a universal plan of action to achieve balanced sustainable development. The SDGs call for ‘leaving no one behind’ in meeting the needs of all segments of the society with a special focus on most vulnerable groups including older persons (Banik, 2019). Ageing cuts across several of the SDG goals including poverty eradication, good health, gender equality, economic growth, decent work, reduced inequalities, and sustainable cities. Beyond addressing exclusion and vulnerability of older persons it is key that older persons are acknowledged as active agents of societal development to achieve transformative, inclusive, and sustainable development outcomes.

Globally food insecurity has been increasing in the last three years with almost 2billion people facing food insecurity that is, are without access to safe, nutritious, and sufficient food. The second SDG goal relates to ending hunger although hunger remains a salient emergency, chronic hunger continues to lack attention of key responsible stakeholders (Banik, 2019). According to the UN Women the world’s worst food insecurity is prevalent in sub-Saharan Africa affecting half the population. In the face of food insecurity gender discrimination means that women eat less even

as they work hard to secure food for their households. The Covid-19 pandemic has also increased the gender gap in the prevalence of food insecurity with a 10percent increase among women than men in 2020 (FAO, 2021). According to the UN women's rapid gender assessment (2021), which sought to highlight the socio-economic impacts of Covid-19 show economic forecasts for 2020-2021 indicate 96million people and more than half of this number 47million women and girls will be pushed into extreme poverty due to the pandemic. In addition,38million older women will be living in extreme poverty, globally as compared to 34million older men. Up to 61percent older women report losing income as occasioned by the pandemic as compared to younger women aged 18-24 at 53percent. Older women also faced increased unpaid care and domestic work, despite general assumptions that their vulnerability status would reduce provision of childcare on the contrary there is a general increase in domestic work at 57percent and childcare 51percent among older women. The existence of HIV/AIDS, has made some older persons caretakers of large families especially in the case that more than one of their children die of the pandemic, adding to this burden most older persons are discriminated against in accessing jobs since they are generally regarded as unemployable (Mudege & Alex, 2009).

Older persons face alarmingly high poverty rates most particularly older women; the main challenge is poor access to pension schemes with older women being among the poorest in population segments in most developing countries. Fragile settings present increased risks to older persons including displacements, vulnerability to violence, abuse, neglect due to disruption of traditional social order and community cohesion

that is affected in disasters. SDG goal 5 on ending all forms of discrimination against women is key in recognizing the compounding effect of age and gender discrimination on older women. Although women make up most of the older population across the course of their lives women face poverty, gender-based violence, high illiteracy levels, disability, and lack of adequate nutrition (UNDP, 2016).

People with disability in developing countries including Africa, face enormous challenges that make them vulnerable to hunger and impacts of disasters including stigma, discrimination, lack of coping capacity to economic and environmental shocks, exclusion in development and humanitarian interventions (IDA, 2018). Food insecurity and disability have a complex linkage on one hand food insecurity can lead to disability owing to poor living conditions, poor nutrition, and lack of access to health services. Disability on the other hand can lead to food insecurity and poverty due to lack of education, employment opportunities, poor access to social services and unavailability of assistive technologies. Where persons with disabilities receive social protection assistance these are often insufficient and commonly do not cover disability-related costs (UNHCR, 2020).

Vulnerability to the disaster impacts is compounded by gender inequality, gender norms and social marginalization tend to increase this vulnerability. The less political, economic, and cultural power held by women and gender minorities prior to a disaster the greater the impact during and after disasters (UN Women, 2019). Communities with high gender inequality and limited access for women to physical, human, financial and natural capital the impact of disasters on women and gender minorities

is disproportionately high (Neumayer and Thomas, 2007). Marginalized persons and groups are often vulnerable to environmental shocks and stresses, disasters further reinforce existing gender inequality and social discrimination thus exacerbating existing power dynamics further marginalizing the ‘left out groups’ (UN women, 2019).

2.5 Intersecting Vulnerabilities in Compounding Food Insecurity as a Disaster Risk

Natural hazards especially those influenced by climate change including food insecurity bring out the existing inequalities. Those at greater risk of disaster impact face the highest inequality and barriers to accessing their rights and everyday needs. These groups often include people living with disabilities, older persons, women, people with chronic health conditions and those contextually marginalized (Lovell and Twigg, 2019). These groups however faced by similar challenges are non-homogenous nor static. Disaster risk reduction programmes, policies and research often tend to focus on vulnerable and marginalized groups as a collective, intersectional approach to vulnerability reduction should take complex contextual realities into consideration.

Food insecurity is a global crisis, affecting including high-income countries in Europe and North America where between 10 to 13 per cent of the population experience food insecurity (Schwartz et al., 2019). Factors influencing food access vary across the population depending on socio-economic status, ability, and culture. Persons living with disabilities face poorer physical access to food. Schwartz also argues that higher poverty rates are common among people with disabilities occasioning poorer

economic access to food. Studies conducted to establish the relationship between disability and food insecurity show higher rates of household food insecurity due to economic, social, and environmental barriers limiting access to food for persons living with disabilities. Social exclusion shows reverse association with food insecurity exacerbating malnourishment and chronic disability conditions therefore indicating a cycle of poverty, food insecurity and disability (Schwartz, 2019). In Kenya women face a lot of challenges including limited access and control over resource and socio-economic opportunities, poor living conditions, lower income. These challenges are compounded among women with disabilities due to the marginalization, stigma, gender biases negatively impacting food insecurity (Rohwerder, 2020).

Vulnerability can be looked at in two ways, an external aspect related to shocks, risks, and stresses to which a person or a household faces and an internal aspect which is caused by defenselessness which means a lack of the ability to cope with damaging loss. Multiple factors combine and overlap to influence an individual's or a group's experience of later years (Center for Ageing Better, 2017). Intersectionality indicates the immediate impact of aspects like gender, poverty, age, and sexual orientation. Intersectionality offers a holistic depiction of people's experiences of disadvantage and discrimination in old age (Center for Ageing Better, 2017). Intersecting factors affecting older persons can provide a good outlook of needs considering context, age-related vulnerability, gender, household size, to ensure complementarity in targeting interventions that address priority needs of older persons.

Older person's vulnerability varies according to their gender, age, and disability status. Often these variables interact and intersect to make older people more vulnerable. Shocks like food insecurity increase the risk of harm to persons with disabilities including psychological, physical, or sexual abuse (Barbelet et al., 2018). As women attain old age, they often experience the cumulative effects of lifelong gendered discrimination and inequality. Older women are likely to be widowed and less likely to remarry than men, which predisposes them to discrimination, exclusion, abuse, and neglect owing to their widowhood (Barbelet et al., 2018).

Ageism is a growing threat to older persons, where prejudice and discrimination towards older persons exists at both individual and institutional levels. This includes stereotypes directed towards people based on their age, this can be at different levels including institutional ageism referring to rules, social norms, laws, policies that unfairly limit opportunities to an individual in relation to their age (Gutterman, 2022). This greatly affects older person's status as rights holders undermining their right to participation, access to essential services, social care, and employment. Further to this old age aggravates existing disadvantages that people struggle with throughout their lives including, gender discrimination, race, ethnicity, disability. The impact of gender differences and inequalities in education opportunities, employment opportunities in Africa increases at every age and worsens in old age, older women are unable to access financial services, own property thus furthering their vulnerability (Help Age International, 2006).

Poverty is one of the main vulnerability factors that affects older persons, poverty is usually characterized by income insecurity, malnutrition, inadequate access to quality

water and sanitation amenities (Help-Age International, 2017). Older persons fall into poverty as they age due to their declined capacity to work thus hindering regular income (Baird, 2013). Older persons living in informal urban settlements in Nairobi also face increased vulnerability to non-communicable diseases which increases the disease burden among this age group (Eliya et al., 2011). Older women and men also face abuse of different forms including physical and emotional abuse (Deraguva, 2017). According to the UN Women rapid gender assessment (2021), indicated an increase in violence against women and girls specifically domestic violence during the Covid-19 outbreak. This assessment noted the limited targeting of older women by sexual and gender-based violence programmes under ageist assumption that these group does not experience these crimes. Most of the violence against women data cover women up to the age of 15-49, while the assessment revealed that 42% of women aged 50-59 and 34% of women 60years and above reported that they or a woman familiar to them had experienced a form of violence against women since the outbreak of Covid-19.

Human capital in informal settlements is low, most older people lack secondary education, gender differentiation to this issue is higher in women, older women are less likely to have attended school in informal urban settlements (Baird, 2013).

Currently 22% of Nairobi's population live below poverty line, the most affected categories include vulnerable groups like older persons, persons living with disabilities, households headed by women and minors, internally displaced people, HIV/AIDS orphans, these groupings of people face intersecting challenges that keep them poor. The leading contributor of poverty in Nairobi can be ascribed to socio-economic and environmental factors. Lack of employment opportunities, increased

cost of living due to increase in prices of basic commodities mainly affecting people living in the informal settlements.

Malnutrition situation in the informal urban settlements is complicated due to the fragmented nature of the communities, due to mobility of people in the informal settlements this makes it hard to understand the inter-linkages between migration, poverty, and health (Njoroge, 2017). Targeted assessment of malnutrition and food insecurity among older persons can better depict the effect of food insecurity and malnutrition on this age group.

2.6 Theoretical Framework

This section presents the Intersectionality, Social-feminism and vulnerability theories that frame this study to provide insight into the triple burden of age, gender, and disability in relation to increased vulnerability to disaster risks. The intersectional theory provides an in-depth look into complex social issues that determine experiences of individuals depending on multiple social issues, the social-feminist theory on the other hand provides insights on the need to understand gender roles assigned by society considering the status of vulnerable women while also acknowledging the labor performed by women as contributing to economic growth however 'invisible'. While vulnerability theory depicts determinants of vulnerability applying social lens, assessing social aspects that aggravate vulnerability.

2.6.1. Intersectionality theory

The intersectionality theory was first coined by Kimberle Crenshaw, in the year 1989 who was a proponent of race and gender issues. This theory was used to explain the oppression of African American women. The Intersectionality is a framework that provides the mindset and language for analyzing interconnections and

interdependencies between social systems and categories. This framework is relevant in analyzing complex social issues through offering theoretical explanations of the ways in which heterogeneous members of a certain group e.g., women experience workplace differently depending on their ethnicity, class, social location. Sensitivity to such differences increases insights to issues of inequality and social justice. As a critical theory intersectionality conceptualizes knowledge as contained in relational, contextual, and reflective of political and economic power (Atewologun, 2018). Intersectionality operates from the premise that people live multiple, layered identities that emerge from social relation, history and power structures hence determining how one experiences oppression, discrimination, and disadvantage (WREC, 2004). Crenshaw (1989) discussed the intersection of race and sex, this focused on experiences of black women with specific intersecting axes of inequality. Experiences of black women clearly depict how dominant conceptions of discrimination condition people to think of subordination as occurring along a single axis. This single axis view in turn erases black women in the conceptualization, identification and remedying of race and sex discrimination, this due to limiting inquiry to the experiences of otherwise privileged members of a group. According to Crenshaw (1989) race discrimination cases, discrimination tend to be viewed in terms of sex or class privileged blacks, while in sex discrimination cases the focus is usually on race and class privileged women. Thus, the focus on the most privileged groups in any society marginalizes those who are faced by multiple burdens and these obscure claims that cannot be understood as emanating from discrete sources of discrimination. This also creates a distorted analysis of racism and sexism because the operative concepts relating to sex and race become grounded in experiences

representing only a subset of a much more complex phenomenon. In principle intersectionality is based on several key tenets including that, human lives cannot be explained only by looking at single categories like gender, age, and socio-economic status but there is a need to look at the multiple-dimensional and complex realities shaped by different factors and social dynamics. The intersectional theory approach to disability highlights key concepts such as double disadvantage and prominence. The double disadvantage approach describes an accumulation of disadvantage that affects marginalized individuals, while prominence occurs when a person is stigmatized or oppressed based on identity considered most salient within a given context. Intersectionality approach to disability also acknowledges that power imbalance affects one's identities, the experience of disability doesn't exist separately but forms of oppression like poverty, trauma and insecurity affect and interact with disability (Brinkman et al., 2022). This theory was deemed key to this study in bringing out the layers of vulnerability faced by older women living with physical disabilities in informal urban settlements, this was seen as important in bringing out the complex nature of vulnerability of the older women living with physical disabilities. Although the theory explains the multi-layer of vulnerabilities it did not fully reflect on role of apolitical arrangements such as division of labor in households that had impacts like sexism and discrimination of women, while the intersectionality theory focused on layers of vulnerability at an individual level the second theory would bring in the macro level factors and how these influenced the experiences of older women with disabilities.

2.6.2 Social feminist theory

The social feminist theory began in the 1960s and 70s through socialist feminist thinkers including Carol Hanisch, Mary Wollstonecraft, Elizabeth Lapovvsky and, Betty Friedman who saw the need to overcome patriarchy and that liberation can only be achieved by working to end economic and cultural causes of women's oppression, this movement started in the United States and Europe. The **social feminist theory** takes a feminist approach, and looks at the nature of gender inequalities through the interlocking nature of class, gender and racial domination while reflecting on other systems of oppression. The social feminist's theory therefore commits to understand the lived realities of "women of color, poor women, disabled women, and old women", this approach appreciates the complex character of domination encouraging a more inclusive and broad understanding of older women's lives particularly their economic and political situation. Socialist feminists deconstruct the concept of "work" which has traditionally been looked at from men's experiences in most cases to mean "paid labor" this excludes much of the labor done by women, this also assumes that there exists a "disembodied" individual who produces in the public sphere, and in turn an "invisible" worker in the domestic domain who takes care of the social reproduction. This notion therefore looks at a male worker whose takes up a full-time job, while women take care of the children and men's personal needs. Further arguments into access to industrial pension demonstrates that pension systems have penalized women for their reproductive roles which has far-reaching implication for their well-being in old age. Socialist feminists argue that reproductive roles go beyond biological reproduction but include socialization, and maintenance of labor power. Activities like community volunteer work, family nurturing provide a variety of

resources and services necessary to support the mainstream economic system. Understanding the relationship between production and reproduction roles played by both men and women creates an inclusive environment where both genders are implicated in the processes and acknowledges the contribution of women in economic development. Socialist feminists also argue based on state policies including welfare programs and labor legislations which have a significant bearing on women's economic situation and enhance the understanding of race/gender-based poverty, state regulation of economic development and women's engagement in formal and informal economies have consequences on women's experiences in old age as well as shaping older women's economic autonomy and well-being (Calasanti, 1993). This theory was key to this study in elaborating the third specific objective of this study which sought to assess the triple gender roles of older women with physical disabilities and how these impacted food insecurity, this theory in explaining concepts of division of labor and the push to view reproductive gender roles assigned to women as a key contributor to economic growth to enable women's role in economy building to be appreciated and compensated to enable them live a full life including addressing their food insecurity. This second theory brought out the macro level economic and cultural factors that impacted older women's liberation and enabling them to live a full life it did not factor the availability of risks and shocks that disrupt vulnerable persons lives and livelihoods which occasioned the use of a third theory which is the vulnerability theory.

2.6.3 Vulnerability theory

This theory was coined in the United States in 2008, by Martha Fineman, who argued against the formal equality and instead pushes for an alternative framework for

understanding substantive equality and the role of government in addressing the inherent vulnerability of its citizens. The **vulnerability theory**, can be seen as a state of susceptibility to harm emerging from stresses occasioned by social and environmental changes (Mckeown et al., 2020). Vulnerability can also be seen as the propensity of exposed elements such as humans, their livelihoods, and assets to suffer negative effects when faced by hazard events (Birkman et al., 2018). While vulnerability is associated to hazards factors like poverty and lack of social networks including social support means, aggravate vulnerability levels irrespective of the type of hazard. Reid on his end argues that Neoliberalism views the world from life sciences perspective and reduces human beings to biological survival, vulnerability, insecurity, and resilience. He argues that humans must bear the world and its disasters, understand our powerlessness in its wake (Chandler & Reid, 2017). According to Hansson et al, (2020) the approach to vulnerability in disaster literature is depicted as proneness of people to experience adverse outcomes due to hazard impacts. The understanding of factors increasing vulnerability should include beyond exposure to risks, susceptibility, and coping capacities. Vulnerability should be looked at as a dynamic characteristic since it is because of interactions between individual, socio-cultural and situational factors that are bound to change over time. This argues against the inherent nature of vulnerability or its uniformity to certain groups such as older persons or people living with disabilities. Vulnerability on the contrary is dependent on and may vary due to interrelations between individual and contextual factors. An individual is vulnerable under certain circumstances and therefore referring to a person as vulnerable should be understood from the view of their status in relation to context which might be changed by changing certain factors

(Hansson et al., 2020). This theory speaks to the second specific objectives of this study which sought to establish the role of social protection mechanisms for older persons and the role of government cash transfer programs in alleviating food insecurity among older persons and persons living with disabilities while also highlighting the role of government to addressing vulnerability of its citizens as a human right due to inherent vulnerability to shocks and risks.

The three theories support the study's main and specific objectives that seek to investigate the intersecting vulnerabilities and their effects on food insecurity among older women with physical disabilities.

2.7 Conceptual framework

The study has identified independent variables including: - Gender, physical disability, access to income and old age. While the dependent variable is food insecurity. These variables will be operationalized as follows:

Dependent Variable:

Food Insecurity: - lack of access to food, inability to purchase food, inability to access other sources of food, unreliability of food sources.

Dependent Variable:

Food Insecurity: - lack of access to food, inability to purchase food, inability to access other sources of food, unreliability of food sources.

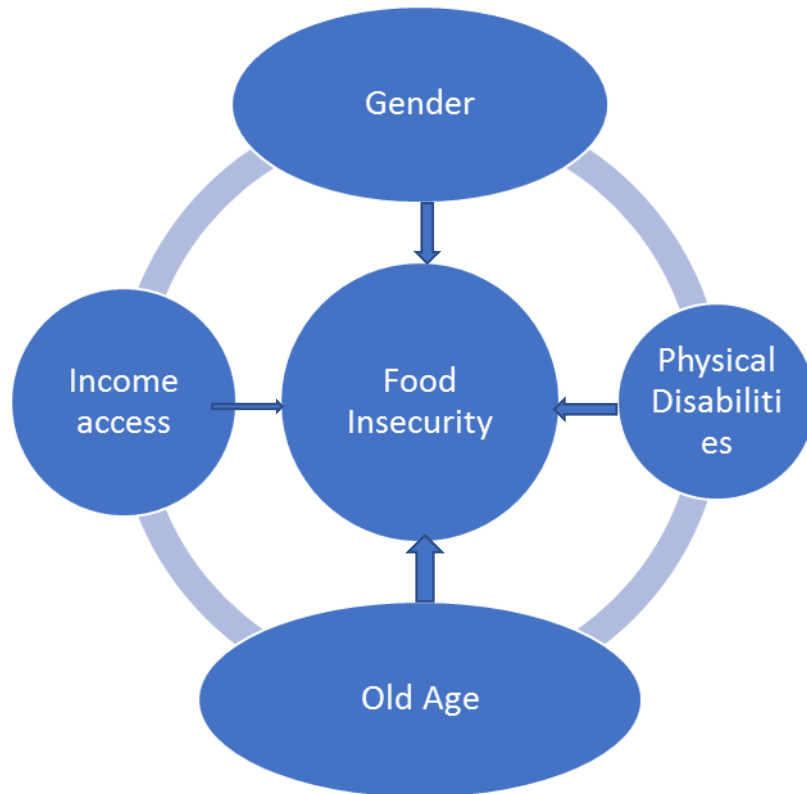


Figure 2.1. Showing Food Insecurity conceptual framework

This framework depicts the socio-economic contributors of food insecurity. Factors on the outside loop all intersect to compound the risk of food insecurity among older women with physical disabilities. Each of the vulnerability factors has strong correlations with food insecurity while mutually re-enforcing horizontally. The arrows each depict the contribution of the variables to food insecurity. Gender: In this study shall be considered as, women’s roles like reproductive, productive and community roles including, caregiving, familial care, economic roles-income generation, social

roles-dispute resolutions, knowledge and skills transfer, decision making has implications to food insecurity either as contributors or alleviators. Disability implies challenges and inability to perform body movements, such as walking, moving arms, standing, inability to conduct daily tasks like, self-care, carrying items, shopping for food, engaging in social activities church meetings, community gatherings have negative impact on older women with physical disabilities getting physical access to food. Access to income: Ability to access funds from, individual income, household income, government social protection, social networks like friends, family, neighbors, church groups, community-based organizations support for use in addressing food insecurity depending on the availability of income options and strength of social networks present options to address food insecurity. Old Age: shall be considered in terms of physical characteristics-decline in physical activity, frailty, economic characteristics- ability to engage in income generating activities, social characteristics- ability to access social networks – family, community groups, religious activities, physiological characteristics- old age diseases these factors work to enhance food insecurity due to reduced physical and economic access to food.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the study design, area of study, target population, geographical location and physical characteristics of informal settlements, demographic, and social characteristics of older persons. It includes discussions on the unit of analysis and observation, data collection procedures and instruments, data analysis, and presentation.

3.2 Research Site

Dagoretti is an area in the Western part of Nairobi, the capital of Kenya is mainly divided into Dagoretti South and North. It straddles the Nairobi and Kiambu County boundary with the Dagoretti road reserve marking the border point heading Northerly and North-Easterly. Vast parts of the Dagoretti area fall within Nairobi County's administration. Dagoretti is situated 10kms west of Nairobi County's city center at 1° 17' 0" South, 36° 44'0" geographical coordinates, covering an area of 38.7Km². Administratively it is one of eight divisions of Nairobi. The Dagoretti south division is divided into six locations namely Mutu-ini, Ngando, Riruta, Uthiru, Waithaka, Kawangware. This study only collected data from three locations, namely Riruta, Waithaka, and Kawangware locations this was informed the deputy County commissioner of Dagoretti sub-county owing to a parallel food security study that was happening the same time as this study was.

The location was selected for this study due to its peri-urban physical setup, and because Dagoretti South has more informal settlements than Dagoretti North. The

informal settlements in Dagoretti South consist of semi-permanent houses built using mud, timber and iron sheets characterized by insecure tenure systems, overcrowding within and between households (KNBS, 2019). The site was appropriate because there are limited numbers of organizations and government projects tackling food insecurity. One of the community-based older persons organization Kenyan Aged people Require Information, Knowledge & Advancement (KARIKA) sight massive funding constraints in the area to organizations aiming to tackle challenges facing older persons including older women with disabilities. The number older women above 60years in the study location is approximately 6,522 older women, this was projected from the latest 2019 census (KNBS, 2019). A pilot project implemented in 2018, under Christian blind mission, on age and disability capacity targeting Dagoretti south highlighted the gaps in including older women with disabilities in development and response projects owing to barriers including physical, economic, environmental, and social barriers (CBM et al., 2015). This location was also deemed appropriate due to its relative proximity to the central business district making it easily accessible.

3.3 Research Design

A research design comprises a blueprint under which a study is conducted, ensuring there is maximum control over factors that have potential influence on the validity of the findings (Creswell & Creswell, 2017). This study adopted a qualitative research design whose approach supports the objectives of this study. This design provided an accurate and valid representation of the lived experiences of older women with physical disabilities in relation to food insecurity as a disaster risk (Marczyc et al., 2005). Primary data was obtained using focus group discussion (FGD), in-depth

interviews, Key informant interviews, and observation. The primary data was triangulated using the in-depth interviews, FGD and KIIs. The responses from the in-depth interviews were further triangulated using other variations including causes of physical disability, income generating activities in terms of how participants accessed income to address food insecurity, age range, differences between older women with physical disabilities in organized self-help initiatives and those not in any particularly in the case of the KARIKA CBO members in the FGD, the researcher also made observations on the status of the research participants during the study. In addition the researcher reviewed a range of secondary information on food insecurity challenges facing older persons and persons with disabilities and for the case of this study older women with physical disabilities, the researcher also looked at literature of social protection including policy framework around this, the researcher looked at theoretical frameworks including intersectionality, vulnerability and social-feminist theories that expounded more on the layers of challenges faced by older women living with physical disabilities owing to their multiple vulnerability identities. This triangulation was mainly done to ensure that the complementarity, convergence, and dissonance of research results on the related research questions that were obtained from varied methodological approaches, and theoretical perspectives (Adams, et al., 2015). The very nature of this research involved exploring food insecurity through an intersectional lens on old age, gender and disability which lends itself to a qualitative approach so that in depth personal experiences and private accounts relating to the concept of food insecurity among older women with disability is gathered to provide further insight into the complexity of this problem and provide new ideas for further research. A qualitative research design permits a descriptive, and in-depth

identification of salient aspects and specific features of the target population to an agreeable degree. The qualitative approach enables the explanation of key characteristics of the appropriate groups, ascertaining the level to which independent variables affects a dependent variable, (Mugenda & Mugenda, 2003). Therefore, this study design was deemed as the best to fulfill the objectives of this study.

3.4 Data Collection Procedure

This study used in-depth interviews, focus group discussions, Key informant interviews and participant observation to collect data. A qualitative study should apply more than one data collection method to get adequate data (Moser & Irene, 2017). Part of participants for the in-depth interviews were selected from a list compiled and kept at the chief's office for the purpose of administering and targeting vulnerable groups in development projects including government food distribution and social protection projects, while older persons community-based organization like KARIKA supported with their target beneficiaries to identify study participants for the focus group discussions and part of the key informant interviews. Using purposeful sampling approach 15 respondents were selected with age ranging from 60 to 90years for in-depth interviews, in Riruta, Waithaka and Kawangware. Those selected were older women with mobility and physical impairments. The Nairobi County Commissioner's office followed by the Deputy County Commissioner's office was approached for authorization to conduct the study in Dagoretti South. The Deputy County Commissioner then sent the researcher to two chief offices in Waithaka and Kawangware respectively who both provided a database of older women with disabilities, as well as database of local community-based organizations

in the target location. The two chiefs also both allocated focal points ‘wazee wa kijiji’ (community elders appointed by the chief who support in community outreach and mobilization) who escorted the researcher and introduced her in the identified households.

3.5 Data collection instruments

This study used the following data collection instruments, interviews, focus group discussion, observation.

3.5.1 Interviews

In-depth interviews and key informant interviews

In-depth interviews

A total of 15 individuals participated in the in-depth interviews and they were selected purposively. The in-depth interviews were conducted in the participant’s homesteads, each lasting one and a half hours.

Key informant interviews

Three Key informant interviews were conducted with focal persons/leaders from target community-based organizations older person’s organizations, older persons village representatives in Riruta, Waithaka and Kawangware refer to appendix 2 below. The Key informant from KARIKA community-based organization was a female aged 50years and she was selected for her vast experience working with older persons in Dagoretti South constituency and understood well their food insecurity challenges. The other two key informants were the community outreach and mobilization elders at the chief’s office in Waithaka and Kawangware these two elders were selected due to their engagement with older persons in their locations and their role in mobilization for government social protection interventions as well as

understanding the challenges faced by vulnerable groups like older women with physical disabilities in their respective locations. The elder in Waithaka was a male 50years and the one in Kawangware was 55years old respectively. The key informants provided information on socio-economic factors influencing food insecurity among older women with physical disabilities from the perspective of stakeholders engaged in providing support in addressing the needs of this vulnerable group. The key informant interviews each lasted one hour.

3.5.2 Focus group discussion

Focus group discussion was another method that was used to collect data from the selected older women with disabilities. One FGD was conducted for this study. The FGD consisted of 6 older women with disabilities who were selected using purposive sampling. The participants for the FGD were identified with the help of KARIKA community-based organization staff targeting older women with disabilities among their membership. These were all women and their ages ranged from 60 to 80years. It was conducted in the community-based organization compound at KARIKA for ease of access for the members. The researcher had to provide facilitation for the participating members in the form of transport and refreshments. The focus group discussion was conducted in Swahili language to ensure effective engagement of the participants. The FGD was conducted to act as a control in the study in that it would be used to observe for differences between older women with disabilities who were part of self-help group and those that were not engaged in such initiatives. The focus group discussion lasted one and a half hours.

3.5.3 Observation

Participant's observation was on-going throughout the engagement with the target group, the researcher observed for, socio-economic indicators like phone ownership, general hygiene, self-care, availability of assistive devices for mobility, availability of caregivers, the surrounding was also observed including types of houses, cleanliness, general sanitation.

3.6 Target Population

Target population refers to the specific group that is pertinent in a study. It is the group of participants with key attributes of interest. This study targeted older women above 60years living with physical disabilities, in informal settlements of Dagoretti South constituency. The study also targeted members of community-based organizations and community representatives in the area working with older persons.

3.7 Unit of analysis and observation

A unit of analysis refers to the entity that a researcher wishes to say something about at the end of the study and can be considered as the focus of the study. A unit of observation is the item (or items), that one observes, measures, or collects while attempting to learn something about the unit of analysis (De Carlo, 2018). For this study the unit of analysis was food insecurity situation of older women above 60years of age with physical disabilities while the unit of observation was female respondents above 60 years of age with physical disabilities in informal urban settlements of Dagoretti South constituency.

3.8 Sampling Procedure

Qualitative research uses deliberate sampling process, purposive sampling also referred to as subjective or selective sampling, depends on the researcher's judgment in selecting the units to be studied. This study first sampled the 15 older women above 60years. The research study participants were deliberately identified from the areas chief's database of older persons and persons with disabilities. This was for the researcher to get the right target group that responded to the research questions. This number of participants in the in-depth interviews, was deemed ideal in qualitative studies in reaching the desired saturation point.

The study also obtained contacts for community-based older person's organizations and village representatives in the area from the local chief to facilitate the Key informant interviews.

The FGD was conducted starting mid-morning from 10am this time was seen as appropriate to allow participants time to do their daily chores or routines and allow those with care givers to get them ready for the sessions. The FGD participants sat in a semi-circle to enable every participant to engage freely. The participants were selected using age and disability as a criteria for participation, these were drawn from the members of KARIKA community-based organization. The researcher set-the tone for the discussion and moderated the discussions and recorded the responses during the discussions this lasted one and a half hours.

Fifteen in-depth interviews and three key informants' interviews were conducted using open ended questionnaires with programme staff of KARIKA community-based organization, and 2 village leaders 'wazee wa kijiji' (community elders appointed by the chief who support in community outreach and mobilization) each lasting one hour.

These were conducted in their organization premises and in the community for the village representatives for convenience.

Table 3.1. Sample Size Distribution

Population type	Size	Percentage
In-depth interviews older women above 60years and above age range (60-90years)	15	62.5%
Key informants	3	12.5%
Focus group discussion participants age range (60-80years)	6	25%
Total	24	100

3.9 Data Analysis

The data collection methods of choice for this research were general interview guides, focus group and key informant interviews that generated qualitative data. The qualitative data was analyzed by means of Nvivo 12 software. The data from the in-depth interviews, Key informant interviews and focus group discussions were put into word documents and imported into the Nvivo 12 software, these were each coded and themes extracted and categorized into main and sub-themes. Quotes from the participants were also extracted and matched under relevant themes. The main themes identified include lack of income, health-physical health, mental health, family support, insecurity-loss of property, attacks from gangs, lack of access to food-food prices, availability of food in the market, lack of government food distributions, lack of access to resources-immobility, lack access to assistive devices, intersecting vulnerabilities-and the different levels of its presents. This process used inductive reasoning, by which themes and categories emerge from the data through the

researcher's careful examination and constant comparison (Patton, 2002). Finally, there were qualitative presentations of the study findings in the form of direct quotation / verbatim from the respondents.

3.10 Ethical Considerations

The letter from the University of Nairobi and the National Council of Science and Technology (NACOSTI) were obtained to permit the conducting of the research in Dagoretti South Constituency. The researcher also obtained authorization letters from the Nairobi County Commissioner, Deputy County commissioner and Assistant County commissioner offices respectively to carry out research in Dagoretti South. The Assistant County commissioner further allocated the researcher a local village leader to accompany the household visits to put respondents at ease. The study ensured data protection through exercising and maintaining confidentiality and ensuring data security by securely storing and handling data confidentially under lock and key. All online data is securely stored in cloud-based system known as one drive only the researcher can access. Respondent's consent was sorted prior to their engagement in the study by asking them directly if they were willing to engage and provide a quick snapshot of what the study was about and its purpose. The respondents were not required to disclose personal information including names to avoid causing harm, instead the researcher used alternate identities to refer to respondents e.g Respondent 2.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION AND ANALYSIS

4.1 Introduction

This chapter presents a detailed analysis of the findings based on the fifteen (15) in-depth interviews, conducted for older women in Waithaka and Kawangware wards, one (1) focus group discussion made up of six (6) participants conducted with older women with disability in KARIKA CBO, and three (3) key informant interviews with two village elders in the above locations and head of projects at KARIKA CBO. In this chapter responses from research participants will be used to offer narrative accounts while also presenting an illustration of the themes that have emerged from this study. The study made use of the Nvivo 12, a qualitative data analysis software. This aided in data exploration, organization of the themes and development of visualizations regarding the data findings.

4.2 Introduction to the participants

This section presents the study participants for the in-depth interviews and focus group discussion's key demographic characteristics including age range of older women, disability type and severity, cause of disability, marital status. It also presents the Key informants who took part in this study.

4.2.1 The in-depth interview participants

The in-depth interviews engaged fifteen older women with physical disabilities in Waithaka and Kawangware informal settlements. The women although all 60years and above varied in terms of age range with those between 60-69 (n=7), 70-79 (n=1), 80-89 (n=5) 90-99(n=2), the youngest among this data set was 60years old while the

oldest was 90years. In terms of disabilities six (6) participants associated their disability to chronic diseases that have affected their physical health two specifically mentioned arthritis as the cause of their disability while two mention serious diseases that caused them to be admitted in intensive care and resulted in their disability condition, one (1) participant stated that they were born with the physical disability, the remaining associate their physical disability to what they call old age which has made them weak and frail thus causing their physical impairment. The participants also showed further demographic variations in terms of marital status with most participants ten (10) reported that they were widowed, two (2) participants were separated from their spouses, only one (1) participant was married, while two (2) participants said they were single and lived alone. Only one of the participants owned a wheelchair the rest used walking sticks and depended on the support of others to move around. Eight of the participants lived in iron sheet houses with cemented floors, one lived in a brick house with iron roofing, the others lived in wooden houses.

Table 4.1: shows number of in-depth interview participants in old adult age range based on the WHO age classification

Age range	Gender	Number of participants
60-69	F	7
70-79	F	1
80-89	F	5
90-99	F	2

4.2.2 The Key Informants

Key informants interviews were administered to a total of three (3) Key informants who include two (2) village elders working in chief's offices in Waithaka and Kawangware respectively and one (1) project lead working with older persons in the KARIKA community-based organization. The two key informants from the two locations were both male in Waithaka aged 50years while in Kawangware was aged 55years they both worked at the respective chief offices and offered outreach services for the offices in terms of mobilization of community groups, supporting research teams access the community, at some point also supported translation and introduction of the researcher to the study participants. The key informant from the KARIKA CBO was a female aged 50years who works in the organization managing projects and day to day running of the organization's activities. She also supported mobilization of the FGD participants including managing their facilitation to and from the venue where the FGD happened. The KIIs provided further insights from an institutional perspective in relation to food insecurity challenges affecting older women with disabilities.

Table 4.2. The Key Informants

Age range	Gender	Number of participants
50-55	F &M	2M 1F

4.2.3 The Focus group discussion

The FGD participants was made up of six (6) older women with disabilities who are members of the KARIKA community-based organization. The FGD participants age

ranges varied from 60-84 years. The participants varied in the level of physical disability with four out the six having mild physical disabilities and could get by using simple assistive devices like walking sticks, while one had severe physical impairment but used a wheelchair, while one had mild physical impairment associated with old age as they were the eldest in the group. One common element among these group was that they were all members of the community-based organization and benefitted from skills development activities like soap making, crafting, and beading, as well as psychosocial support through social group activities including choirs, community visits.

Table 4.3 The Focus group discussion

Age range	Gender	Number of participants
60-69	F	4
70-79	F	1
80-89	F	1

The participants of in-depth interviews expressed varied views relating to challenges they faced as older women with disabilities including social and economic barriers that impacted their food insecurity. Further to this, intersecting aspects of vulnerability at individual levels were also highlighted. The focus group discussion participants provided their perspectives on socio-economic challenges faced by older women with disabilities in relation to food insecurity but further depicted some level of cushioning that came with their membership in the community-based organization through income generating activities they were engaging in including soap making, beading, craft, local social protection initiatives through merry-go-rounds and

psychosocial support through group activities which they related to reducing their stress levels and encouraging sharing of personal problems affecting them. The KIIs provided further insights from an institutional perspective in relation to food insecurity challenges affecting older women with disabilities.

4.3 Findings

The following themes were generated and outlined in Table 4.4.

Table 4.4 Hierarchy of Emergent Themes

Theme	Description
Lack of income to alleviate food insecurity	No formal employment, income inconsistency, unsustainable businesses
Poor health conditions as a contributor to food insecurity	Physical Health, Mental Health of older women with physical disabilities
Available social networks that address food insecurity	Visits from Relatives, Money Sent by family members and relatives, support from well-wishers including-churches, neighbors, local community-based organizations
Poor security and safety as a contributor to food insecurity	Attacks from criminals in the neighborhood, Loss of property
Lack of access to food and its contribution to food insecurity	High food prices, lack of access to markets, lack of access to government food security interventions
lack of equal opportunities to access resources to address food insecurity	Immobility, lack of assistive devices, lack of access to public transport, lack of access to public services
Emerging theme: Intersectionality as an emerging theme on food insecurity among older women with disabilities	Personal barriers, ongoing experience of marginalization

4.3.1 Lack of income to alleviate food insecurity

Majority of the participants in this study highlighted the lack of income as the main reason why they are unable to alleviate food insecurity in their households. They stated that they did not have a reliable source of income because they are not engaged in any formal employment or income generating activities. It was also established that the most common source of income among the participants was small business ventures that included selling of vegetables, porridge, as well as sell of tea and snacks along the roadside.

The study also established that most of the participants relied on donations from neighbors, churches and charitable organizations as a source of income, while others solely depended on support from close family members and relatives. The study also found that there is general lack of awareness by persons with disabilities and older persons on how government cash transfer for people with disabilities and older persons targets participants as most of those interviewed were not benefitting from government social protection initiatives.

For example, respondent no 7 in Kawangware stated that. Being an old woman with disability and living at a time when skills and effort is required for one to be employed and earn income, it's a big challenge to get income opportunities and this makes it difficult for me to earn income that I can use to cater for my food needs.

Further in support of the claims of respondent 7, respondent 1 added that there is lack of employment opportunities for the older women like me because we are seen as not being competent enough therefore no one wants to offer a frail old woman employment this means without income I cannot buy food.

The study noted slight variations as reported by members of the FGD, owing to their membership in the KARIKA CBO they had access to income generating activities, like soap making, beading, crafting of mats and merry-go-rounds which gave them some small income e.g. 50 shillings a week contribution to the merry-go-round and the cumulative amount was shared to members on a rotating basis. This income was used by members to address their immediate needs including buying food. Although all the participants in the FGD felt that the income was irregular and limited they all agreed that they were faring better than those not in the group in terms of alleviating their food insecurity.

The study further established that the cash transfer amount of 2,000 Kshs is not enough to address the needs of older women with disabilities due to the high cost of living and competing expenses; rent, medicine, food, large number of dependents to take care of, distance to the banks means older women with disabilities incur costs due to mobility needs, caregivers who accompany older persons sometimes ask for payment or take up the money and some older women are chronically ill therefore couldn't go to collect their entitlements. The social protection initiatives in the area includes government cash transfer "inua jamii" targeting older person 70years and above with 2,000 kshs a month, although the transfers experience massive delays sometimes up to 6 months, targeting criteria was also not clear for most of the study participants. The participants further stated that their un-employability makes them fully dependent on family, well-wishers-like neighbors, churches, local community-based organizations or government who's support was at times irregular.

Respondent 8 shared that *I have been registered for the old people's money which is 2000kshs every month, this would be useful for me although the money delays a lot and sometimes, they skip months before they send the money. Although when it is sent the money helps me to purchase food and prevent food insecurity.*

The coverage of social protection intervention was reported to be limited and unclear in terms of who benefits or how the targeting is done. The FGD participants stated that none of those represented on the focus group discussion was benefitting from the government cash transfer and they were not aware of any older woman in their community who is benefitting even though some were registered, and they understood that the criteria was changed to target older persons 70years and above. The KII participant from KARIKA CBO further corroborated this information by admitting that most older persons with disabilities lacked awareness on the selection process for the cash transfers because their engagement in the process is limited.

Some of the participants in the in-depth interviews reported having some small-scale income generating activities including sell of boiled beans, selling vegetables, rental income, running day care services. These were the few who had a means of earning income, despite this all the participants who reported to have income generating activities still underscore the challenge of increased costs of living and competing priority needs including cost for medication that means less money is available to purchase food therefore challenging their ability to alleviate food insecurity in their households.

Respondent 12 states that Income is barely enough to provide for myself, being fully dependent on others, whatever little I get is fully used up on other expenses like medicine.

All the Key informant interviewees also underscored the reality in Dagoretti south informal settlements in terms of accessing food, in that food is mostly accessed from the market. This means it is mostly purchased using money which is a challenge for most older women with disabilities who lack a source of income. Cultivation of food is limited only to those living close to water sources. Inflation rates and the ongoing drought were also reported to have affected the supply of food stuffs in the market as well as increasing the prices of basic food commodities this has not been countered by any interventions to cushion vulnerable groups like older women therefore their ability to purchase food has reduced and this increases their food insecurity.

4.3.2 Poor health conditions as a contributor to food insecurity

Poor health was reported as one of the key factors contributing to food insecurity among older women living with physical disabilities in the informal urban settlements under study. Majority of the participants in the in-depth interviews as well as those in the FGD reported several health-related barriers that hindered their ability to alleviate food insecurity in their households, in some cases the lack of proper health facilities, was also sighted as contributing to poor health and in-turn furthering their food insecurity. Based on the findings of this study poor health was approached in two broad lenses namely poor physical health and poor mental well-being

4.3.2.1 Poor physical health

Most of the respondents reported suffering from a health condition that contributed to their physical disability which in turn meant that they could not engage in gainful

income generating activities and therefore could not address food insecurity. Two of the in-depth interview participants stated that they suffered from chronic arthritis that made them to be confined in their houses and meant that they could only depend on the support of family, and well-wishers to access food. Eight of the participants also reported being sickly from time to time, one of whom was admitted under critical care for some time. They all relate their food insecurity to their sickness since being unwell hindered their ability to access income while those who had a source of income most the money earned was used to purchase medicine and they were left with very little for food. Food preparation was also a challenge for those who had no care givers being sick meant that they could not prepare meals for themselves.

Respondent 9 said *it is difficult for me to go out and earn income, because of my disability and frequent illness, income opportunities are also scarce most of the time and that is a big challenge for me.*

These sentiments were also shared by some of the participants in the focus group discussions who mentioned that illnesses associated with old age and disability prevented some of them from going out to engaging in income generating activities but also prevented them from engaging in support group activities as members of the CBO. One of the FGD participants mentioned that they had been unwell for a long time and did not want to engage in group activities but due to outreach and home visits by the members and staff of the KARIKA CBO she has been encouraged to continue engaging. One of the advantages that CBO members mentioned in the FGD was home visits that they usually organize as a group to visit chronically ill and bedridden members, although they don't offer much in terms of financial assistance

members reported that they offered psychosocial support and encouragement to ailing members, they also helped with cleaning up their homes and preparing meals.

Most of the women interviewed in the in-depth interviews also stated that they lacked access to proper medical services because of high cost of medical treatment that meant most times they could not afford proper health services. This also contributed to their food insecurity since without proper treatment they had recurrent ailments and spent more on purchasing medicine.

4.3.2.2 Poor mental well-being

The study established that disability brought with it discrimination and unequal treatment of older women with physical disabilities. Some of the participants in the in-depth interviews reported facing discrimination, neglect and loneliness which made them feel depressed and lesser members of the community. Discrimination by other members of the community came from the perception that older women with disabilities are frail and incompetent to engage in any income generating activities. This meant that they could not be considered for opportunities in most cases. This in turn affected their desire to take part in economic activities that would otherwise enable them to alleviate their food insecurity.

Respondent 2 said I Experience and face a lot of discrimination because of my old age, and disability, in fact when I look for rental houses some landlords refuse to offer me their houses because they think that older people cannot afford to pay rent and they see us as a burden. Some community members have openly told me that I am cursed because of my disability condition, this makes me feel bad and despised.

Further in support to respondent two's claim respondent three added that;

in this community it is everyone for themselves no one is willing to help an old woman with disability, I feel neglected.

Some of the participants of in-depth interviews also reported being neglected by their own families and were left to the mercies of neighbours and well-wishers especially in recent months owing to the Covid-19 pandemic that caused some of their relatives to lose employment as well as the increased cost of living, meant that everyone was trying to fend for themselves and had no surplus income to support them. This affected them greatly because they felt lonely, and this contributed to their food insecurity because they believed that if their families supported them regularly, they would have access to food including support to prepare meals as compared to depending on neighbours. One of the participants also reported the lack of trust with her neighbours who have previously attempted to harm her, so she feels insecure and not free to engage in income activities for fear of being harmed by her neighbors.

The FGD participants on the other hand despite expressing the effects that discrimination, and neglect by family members and some community members had on their mental well-being. They also stated the fact that having opportunities to meet up as a group on a regular basis was a good group therapy for members. In their own account they said when they are together and shared their problems it helped them feel better and reduce their stress levels. They also reported that they engaged in social activities like choirs, home visits, aerobics, that helped them manage stress and have the desire to continue engaging in the community. Some of the FGD participants also mentioned that they were called upon from time to time to offer their wisdom and experience including, dispute resolution in the community, resolving domestic

disputes and marital counselling, teaching life skills to young people which made them feel appreciated and gave them a sense of belonging in the community.

4.3.3 Theme 3: Available social networks (family, relatives, neighbours, church members, community-based organizations) that address food insecurity

Most of the participants in the in-depth interviews related the role that some of the social networks played in either alleviating or contributing to their food insecurity.

Based on the accounts provided by the participants, the findings seem to indicate that older women had access to support both financial, general care that supported to some extent to address their food insecurity. On the other hand, there were those that shared that they lacked this resource, and this made them more vulnerable to food insecurity.

Most of the participants mentioned that their family members and neighbors visited, some on a regular basis to offer food and support with food preparation, others were visited less frequently so they could not fully depend on this support, a few of them stated that their children sent them money for their upkeep even though they did not visit often this enabled them to purchase food and hire care givers to help them prepare food. Although a few of the participants also stated that they had been totally abandoned by their family members and were struggling to interact with their neighbors, this meant that they had to fend for themselves or depend on well-wishers.

Well-wishers in this study varied among the in-depth interview participants to include church members, community organizations targeting women, neighbors, women groups in the community. These support systems varied in terms of consistency, type of support and dependability. Some of the participants received food donations from their church members from time to time, including spiritual care, a

few were beneficiaries of food support from local women organizations that had small-scale food distribution initiatives, a few depended on their neighbors to purchase food, provide food and support with food preparation. Respondents in the FGD on the other hand received support from group members in the form of home visits to ailing members and support with food provision, food preparation, and self-care.

Another dynamic that was reported by some of the participants was the fact that they are the ones being depended on by their family members to provide care giving support, this is in the case of one older woman with disabilities whose children were affected by drug abuse and could not take care of their children thus abandoning them and she had to take care of them. This added extra burden to the older women in terms of providing food for her household which in most cases is a challenge.

Respondent 8 said that, I have a caregiver who takes care of me and prepares food for me, I pay her 200kshs per day, my daughter in law comes to visit regularly and helps around with food preparation. I was abandoned by my family members for some time especially when I was very sick my disability condition is due to the long sickness.

Further Respondent 4 supported the claims above saying;

My neighbors come to visit often and help around the house with food preparation and sometimes bring me food. My son lives just across the road, but barely visits his wife comes to visit from time to time.

The FGD participants on their part stated that being members of the community-based organization created a strong social bond among them. Through engagement in group

activities like soap making, table banking they could support their members with the small amounts of money generated. They also had a welfare aspect in their group where they followed up on their ailing members who were unable to engage in group activities. All the FGD participants underscore the benefit of being part of the group for social support, they felt they fared on better than fellow older women who were not in any groups. This helped them to alleviate their food insecurity to some extent. Although the FGD participants appreciate the benefits associated with being part of community organizations like KARIKA, they agree that such organizations are few and, in most cases, underfunded therefore they are limited in terms of coverage and reach to other older women with disabilities.

FGD respondent 6 *The self-help initiatives in the community only reach a few individuals and not the entire community. This means some of the vulnerable groups are still left out without any support. The government has not been supportive except for food distribution that was provided during the Covid-19 pandemic but that has stopped now.*

Based on these findings this study draws strong correlations with one of the main theoretical arguments in this study as posited by, Hansson et al, (2020) who argues against approaching vulnerability only as proneness of certain vulnerable groups to adverse outcomes of hazards, but a look beyond risk exposure in this case food insecurity to include susceptibility and coping capacities. Further an assessment of interactions between an individual's socio-cultural and situational factors that keep evolving over time. And hence vulnerability is dependent on and may vary due to interrelations between individual and contextual factors. This reflects the accounts of the participants that access to social networks at times provided reprieve in terms

addressing their food insecurity, albeit being irregular at times, for some it was lacking, while those who were part of social groups some of their food needs were addressed. Therefore, although all the participants interviewed depicted some level of uniformity in their vulnerability status there still existed variations in terms of coping capacities and vulnerability levels.

4.3.4 Theme 4: Poor security and safety as a contributor to food insecurity

The study also established an emerging theme in terms of insecurity and lack of safety as contributing factors to food insecurity among older women with disabilities. Insecurity was identified by participants of in-depth interviews and key informants as adding to the food insecurity situation, insecurity in these informal urban settlements took different forms, ranging from i) loss of property through criminal activities, ii) physical attacks from gangs iii) community and environmental threats.

4.3.4.1 Loss of property and business due to theft and other hazards

The study established that some of the participants in the in-depth interviews had lost their livelihoods due to theft and attacks from criminals. One of the participants reported losing all her stock to criminals in her area thus affecting her main source income and increasing her susceptibility to food insecurity. Others related that they were afraid of setting up small businesses for fear of being attacked by thieves. In addition, due to their old age and disability they become easy targets for criminals. Some of the FGD participants also corroborate these sentiments as they mentioned increased levels of insecurity which caused some of them to lose their livelihoods.

FGD participant 3 narrated: old women with disabilities like us are always prone to attacks by criminals, there was an old woman who set up a vegetable kiosk but because she couldn't move fast enough in the evening after closing her business she was attacked, and all her money taken away. Even the young people who offer to help sometimes steal from us.

The Key informants in both Waithaka and Kawangware also mentioned insecurity as a contributor to food insecurity because of the high poverty levels in the area thus theft was very rampant. Vulnerable groups fell victim to attacks, those that have small gardens in their homes have had their produce stolen, a lot of theft cases were reported in the market which make it unsafe for older women with disabilities.

Other hazards in the environment also contributed to loss of property including flooding, fires. One of the interviewees reported losing all her belonging owing to floods in the area and they had been relocated by the government in another location in Kawangware which meant they had to start over without much support.

Two of the Key informants also sighted the frequent fires in the informal settlements which they state affects older women with disabilities more because they couldn't support themselves and therefore suffered more losses, which contributed to their food insecurity.

4.3.4.2 Risk of attacks from Gangs and Criminals

The study also revealed that older women with disabilities in the informal urban settlement under study faced increased risk of physical attacks from gangs and criminals. One of the participants on the in-depth interviews disclosed that they had

been a victim of rape and sexual abuse because of insecurity in the area which made her live in fear and she was afraid to venture out looking for income, this increased her food insecurity. Land disputes in the area due to insecure land tenure and the widowhood status of most of the interviewed older women with disabilities had posed challenges to some of them. One of the participants who now lives with her grandchildren reported receiving death threats from unknown people in the community due to land dispute where she was living, she had to move to another location but still lives in fear and only depends on support from family.

The Key informant at KARIKA CBO also reported the deplorable state of some of the older women with disabilities who had no caregivers, these women were victims of exploitation, physical and sexual abuse since they have no one defend them.

4.3.5. Theme 5: Lack of access to food and its contribution to food insecurity

The study also established that lack of access to food increased food insecurity among older women with disabilities. The lack of access to food in this case can be looked at from various aspects including: i) increased cost of living due to the prevailing inflation in the country ii) the ongoing drought has reduced food supplies in the market iii) lack of government food distribution. Most of the participants in the in-depth interviews stated that the current high cost of living had pushed up the cost of staple foods like flour, cooking oil, cereals, this meant that they had to purchase the little they could afford or depend on support from family and well-wishers, which was not regular in some cases since everyone was feeling the effects of the inflation. Several of the older women interviewed reported skipping meals as a coping strategy to the increased food prices and scarcity which increased their food insecurity. Others

who had support from family members, community-based organisations, and church still highlighted the fact that it was not sustainable in most cases it catered for their immediate food needs but there was no hope for the future. With the prevailing high cost of living some of the participants stated they did not notice any spikes in food scarcity, but that food scarcity seems to be a daily struggle and they just had to find ways of surviving with that situation. Most of the older women interviewed reported suffering from several diseases and with that cost of food and medicine made up their biggest expenses, because they had to cater for their health as well as food needs, in times of increased sickness it meant that they had to spend money on purchasing medicine and reduce their food intake which only made their health situation worse and increased their food insecurity.

Respondent 8 related that: The food I have in my house is not enough for me and my family, this forces me to skip some meals and when the situation is bad, I go without food unless I receive support from well-wishers. The current high cost of living has also caused food to be scarce because I am unable to afford food and still cover other expenses like rent and medication.

The Key informants on the other hand looked at the lack of access to food from a market perspective in that food supplies in the market have become scarce even with increased demand. This scarcity they have attributed to the prevailing drought that has reduced the amount of food supplies in the market. Since most of the residents in the informal settlement depended on the market to purchase their food reduced supplies meant the costs for basic commodities like vegetables, cereals, flour had gone up and most vulnerable groups including older women with disabilities couldn't afford it.

Government initiatives like food distribution for vulnerable groups is considered important in cushioning vulnerable households from food insecurity. Although its importance is underscored by those interviewed in this study, most of the participants in the in-depth interviews stated that food insecurity in the informal settlement had not been treated with the urgency that it deserved and was only seen as a disaster risk during the Covid-19 pandemic, most of the participants said that it was during the Covid-19 pandemic that they received food distributed by the government ‘chakula ya chief’. This food distribution initiative seems to have stopped at the time of conducting this study and the participants felt it would be more beneficial in alleviating their food insecurity.

Similar sentiments were shared by the KII at KARIKA CBO that during the Covid-19 pandemic community-based organizations were targeted by the government for support with food distribution which they further distributed to their members and other vulnerable groups in the community in their case their focus was on older persons, persons with disabilities and those with chronic illnesses.

KII 1 at KARIKA stated that: Local CBOs are currently facing massive funding shortages which has been made worse by the Covid-19 pandemic apart from the government support with food distribution most CBOs including KARIKA are struggling to provide food to the needy households.

4.3.6 Lack of equal opportunities to access resources to address food insecurity

This study focused on older women with physical disability, the study findings also established challenges related to unequal opportunities to accessing resources by older women living with disabilities in the informal settlements under study. This unequal opportunity is presented in the form of immobility. Immobility in this case is

presented in two categories i) Personal level inability to move and engage in income generating ventures, ii) Environmental, economic barriers to movement.

All the participants in the in-depth interviews highlighted the fact that their disability, and old age has greatly hindered their movement from one place to another. The participants state that this condition meant that they couldn't access equal income generating opportunities like able bodied members of the community. Some of the participants involved in petty trade like selling boiled beans and vegetables reported that they had to depend on their grandchildren or neighbors to go buy stock from the market. One of the participants added that some of the income generating activities require full-time commitment which at her age of 90years is not possible to manage. Some of the participants were bedridden and couldn't move around therefore couldn't engage in any income activities that would require venturing outside the home. One of the participants who is also 90years of age reported having multiple impairments including difficulty seeing and hearing in addition to physical impairment and depended on family members to support her with movement from one place to another. Some of the participants also stated that since food is mainly accessed from the market, they didn't feel safe to venture out and push around in the market because they considered themselves frail. All these challenges meant that the older women with disabilities' food insecurity situation was hard to alleviate at a personal level due to disability related barriers that hindered them from enjoying equal income, and choice of venturing into markets to either sell products or even purchase food items.

Respondent 5 said that in this community one must work to earn money to purchase food, this requires someone to move from one point to another but as a frail lady with disability I cannot go out to look for income opportunities. This affects my ability to cater for my food needs as compared to those who are free to move and work.

The KII respondents also supported these submissions, the project staff at KARIKA sighted the inability by older women to leave their homes to look for income opportunities and that they could not go to the market to purchase food.

KII respondent stated that older women with disabilities mainly engage in petty trade, weaving, beading, tailoring business ventures that require minimal movement due to mobility challenges.

Economic barriers that were established in this study include the high cost of assistive devices like wheelchairs, most of the participants in the in-depth interviews said they did not have assistive devices and could not move around easily to find income or purchase food thus increasing their food insecurity. Some of the participants only had a walking stick or had to depend on family members and neighbors to get around.

In the FGD only one participant had a wheelchair, while the others had to use walking sticks or just get around with difficulty for those with mild physical disabilities. The participants highlighted that the high cost of wheelchairs made them unaffordable to most older women with disabilities. Their movement was greatly hampered, and they could not enjoy movement like other members of the community, but even the one with the wheelchair shared that the device required maintenance and repairs which costed a lot.

Respondent 5 in the FGD stated that, Most older women with disabilities lack assistive devices for easy mobility in the community therefore engaging in income generating activities to cater for food needs is a challenge

On the other hand, environmental barriers in this study looked at physical barriers in the environment that hindered the engagement of older women with disabilities in income opportunities. In the FGD the participants reported challenges with accessing public transport systems in the location in that the operators sometime refused to pick them up as they were seen to be a burden. The participants also reported that accessing some of the buildings like banks and other government offices was a challenge. Some of the areas in the informal settlements had uneven terrain thus hindering movement for older women with disabilities lacking assistive devices. One of the participants in the FGD reported being told to go back to the rural areas because the city was not for older people with disabilities.

Respondent 2 in the FGD stated that: most older women with disabilities have mobility challenges due to lack of assistive devices, on the other hand public transportation is not always friendly to older women with disabilities, trying to access some building including government buildings, banks also prevent older women with disabilities from accessing services.

4.3.7 Intersectionality as an emerging theme on food insecurity among older women with disabilities

This study focused on intersectionality as an approach to understanding the different interrelated factors that interact to determine how certain vulnerable groups experience life despite their being in heterogenous groups for example older women,

persons with disabilities. This study benefitted from intersectionality theory that operates from the premise that people live multiple, layered identities that emerge from social relation, history and power structures hence determining how one experiences oppression, discrimination, and disadvantage (WREC,2004). Crenshaw (1989) discussed the intersection of race and sex, this focused on experiences of black women with specific intersecting axis of inequality.

Reflecting on the study findings, there seems to be two strands of intersectionality that seem to come up i) personal level challenges ii) ongoing experiences of marginalization and discrimination

At the personal level older women with disability seem to suffer from health-related challenges this both physical and mental. Most of the participants of the in-depth interviews associated their disability to chronic illnesses that came with old age including arthritis. In this case old age, disability and health interacted to increase food insecurity among these group because most participants reported having to spend their little income on medication. During spikes of diseases most of their income went into purchasing medication and food intake was reduced. Mental health well-being was also highlighted as resulting from discrimination, marginalization and neglect from close relations and community members. The feeling of loneliness, inadequacy, and frailty as reported by most of the participants discouraged most of them from wanting to venture out and engage other members of the community including looking for income opportunities. Some of the participants reported being neglected by family members this caused a lot of stress to them.

The perception that older women with disability were generally frail and entered a role less state has been alluded to by both participants of in-depth interviews and FGDs who reported that in most cases they were not considered for income opportunities, 'no one wants to employ a frail disabled old woman'. This perception has both ageism, ablism and gender discrimination as intersecting layers of discrimination against this vulnerable group, this has in turn denied this group an equal opportunity to engage in income opportunities that could have supported in alleviating their food insecurity. This discriminative perception of older women with disabilities also plays out in the issue of security and safety. This study has highlighted that this group was more susceptible to property loss and physical attacks by criminals because they are seen as defenseless. This has instilled fear in some of the older women with disabilities and caused some to relocate due to death threats targeted to them over land disputes. This perception therefore played out in various lenses and is layered at different levels each participant experiencing varying levels of discrimination.

Barriers to equal opportunities for older women with disabilities was associated with the inability to move and meaningfully engage in income opportunities like other members of the community. Inability to move associated with personal level barriers and environmental barriers interacted to hinder the active engagement of this group thus excluding them from taking charge of alleviating their food insecurity.

Observations of the study: **Observations of the study**, during the study I observed that, the respondents seemed to have decent houses most of them built out of iron sheets, while one was built out of bricks these were reasonably clean, apart from the

participants who lived alone who struggled to clean their houses and these were seen to be dirty, and unkempt. I also observed that some of the participants were wearing dirty clothes and were looking un-kempt especially the ones who had no caregivers to support them keep themselves clean. I also observed that most of the participants had no proper assistive devices most of them used walking sticks only two of the respondents had wheelchairs one from the in-depth interviews and one FGD participant. Walking around the neighborhood in the informal settlements I noticed a bit congestion and in some of the neighborhoods in Waithaka the terrain was rocky, that could possibly make it difficult for the older women with disabilities to move around, especially because most of them lacked proper assistive devices. Some of the grocery shops seemed to be a bit far from the houses thus for an older woman with disability they would have to depend on the support of relations, neighbors, or caregivers to access food stuffs. During my engagement with the older women with physical disabilities in the FGD, I noticed variations on the outlook of the participants a few were well groomed wore clean clothes, while others wore dirty clothes, and these were the ones who reported being discriminated by community members and being neglected by their family members. Only one of the participants had a wheelchair while the rest either used walking sticks or just got by without any assistive devices they had mild physical disabilities. I noticed a good sense group togetherness and belonging among the FGD members, they checked on each other's welfare, shared meals depicting, a sense of trust and security amongst the members.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents summary, conclusions of the findings of this study. This section further presents recommendations relevant to stakeholders and decision makers focusing on food insecurity and social welfare of vulnerable groups like older persons with disabilities in informal urban settings.

5.2. Summary of findings

The study sought to elucidate on the concept of food insecurity and factors that contributed to this among older women living with physical disabilities. The study also intended to highlight intersectionality as an important consideration when assessing vulnerability in a bid to better understand the layers of vulnerability and their effects on older women with disabilities. The main objective of this study sought to investigate the extent to which socio-economic factors within the context of the triple burden of gender, old age, and disability frames food insecurity as ongoing disaster risk among women with disability in Dagoretti south informal urban settlements. The three (3) specific objectives of this study intended to, i) Identify the challenges faced in accessing food by older women living with disability in the informal settlements of Dagoretti South, ii) Examine role of the existing income options and social networks in addressing food insecurity among older women with disability in Dagoretti South and iii) To thematically analyse the role of intersecting vulnerabilities in compounding food insecurity as a disaster risk. Further to this, three (3) research questions were constituted to support the achievement of the specific

objectives these questions included; i) What challenges do older women with physical disabilities face in accessing food in Dagoretti South constituency?, ii) Why do existing income options and social networks including (older people's cash transfers, wealth ownership, community care, familial care) fall short of reducing food vulnerabilities among older women with disability in Dagoretti South Constituency, iii) How do the intersecting vulnerabilities experienced by older women, frame disadvantages and increase food insecurity among older women with disabilities?

Further the study reviewed literature that expounded on the triple nexus of gender, old age, and disability and how these vulnerability risks exacerbated food insecurity among older women with disabilities. In part expounding on the different vulnerability risks and their contributions to food insecurity, elucidating the intersecting nature of vulnerabilities faced by older women with disabilities linking to global, regional, and local trends. On the other part the study drew parallels with the global sustainable development goals (SGDs), specifically goals focusing on ending hunger, gender equality, economic equality and the urge to leave no one behind. The study generated several themes that highlight the barriers that contribute to older women with disabilities' food insecurity; the **lack of stable source of income** was reported by most of the participants as a key challenge to alleviating their food insecurity. Similarly, UN women (2021) economic forecast show that in the year 2021-2022, 38million older women globally will be living in extreme poverty while 61 percent of older women will lose their income occasioned by the Covid-19 pandemic as compared to younger women.

Older women with disabilities who were part of community-based organizations seemed to have organized their skills and knowledge into gainful income activities

including soap making, crafting, beading and merry-go-rounds, these ventures supported to some extent in alleviating food insecurity.

Poor physical and mental health emerged as key contributors to food insecurity among older persons with disabilities. Diseases seemed to be directly associated with disability conditions of the study participants, diseases in part caused their disabilities especially for those suffering from chronic arthritis, which greatly contributed to their food insecurity because due to their sickness they could not venture out to access income generating activities or purchase food to alleviate food insecurity. Poor mental well-being emerged to be one of the contributors of food insecurity due to the discrimination and neglect of older women with disabilities affecting their willingness to engage in income generating activities as they consider themselves frail and incompetent, the neglect also meant that they sometimes couldn't prepare food for themselves especially during increased illness. Similarly (APHRC, 2019) posits that about 23percent of global disease burden can be attributed to conditions that affect older persons, this is due to chronic illnesses among this age group. Chronic illnesses affect older persons with physical impairment's ability to shop for food, carry food home, prepare meals thus just like lack of income ill health also increases food insecurity. Further to this literature indicates that older persons living in informal urban settlements in Nairobi faced vulnerability to non-communicable diseases which increases the disease burden among this age group (Eliya et al., 2011). According to Barbelet et al, (2018) older women often experience cumulative effects of lifelong gendered discrimination and inequality. Older women are likely to be widowed and less likely to remarry as compared to men which predisposes them to discrimination, exclusion, abuse, and neglect. Although the literature makes reference to old age and

gender as risk factors influencing vulnerability of women in these categories, this study's findings further add the disability lens which compounds the vulnerability and susceptibility to food insecurity among this group. older women with disabilities in community-based self-help groups seemed to benefit from psychosocial support and outreach interventions that provided them a chance to manage stress.

The availability of social networks (family members, relatives, neighbors, church members, community-based organizations) varied for the study participants the primary social network was family relations who provided food support, provided remittances that aided in the purchase of food as well as food preparation. The other social networks available to the study participants varied from neighbors, church members, community groups were seen to offer some reprieve in alleviating food insecurity mainly through donations, food support and help with shopping for food and food preparation these worked differently for each participants from those fully dependent on neighbors, because their immediate families had abandoned them, while church and community groups intervened to supplement their food needs These social networks although strong for most participants, there are some participants who reported being neglected and discriminated by family members. Ruel et al, (2017) argue that data is not always available on the type and strength of non-formal safety nets in urban settings because of weaker sense of community in urban areas, this weak social support networks coupled by the necessity to utilize cash for purposes of buying food contributes to significant insecurity and uncertainty for livelihoods and promotes food insecurity (Ruel et al., 2017). Linked to this is the case of **lack of access to food** which this study approached from the lens of high food prices, which significantly affected the purchasing power of older women with disabilities and

increased their food insecurity; lack of government support in the form of social protection and food distribution was seen as a contributor to food insecurity, the amount of cash transfer (2000kshs) failed to take to account the cost of living, it had limited coverage, most of the participants apart from one reported being beneficiaries of the older persons cash transfer. Food distribution by the government was also reported to have stopped as Covid-19 cases reduced. According to Knox (2012) one the challenges of social protection targeting in Kenya, is the targeting logic, which is argued to be based on the poorest, this approach is not always compatible with Kenya's political, social, and institutional context, measuring vulnerability involves a degree of subjectivity that has resulted in various challenges including, targeting where local perspectives of the neediest is not fully considered.

Gender based violence has been reported to be in the increase in the wake of the Covid-19 pandemic and global inflation. The UN Women's rapid gender assessment report (2021) indicates an increase in violence against women and girls. The assessment points out to the gaps in targeting older women by sexual and gender-based violence programmes under ageist assumption that these group does not experience these crimes. The study findings have established this challenge in the case of **lack of security and safety; attacks by criminal gangs and loss of property**, these forms of gender-based violence seem to be perpetrated on the premise that older women with disabilities are defenseless and cannot stand up for themselves, one participant reported that they were survivors of sexual and gender-based violence, while another suffered forced re-location due to threats to their lives. This has implications on their food insecurity since some of the participants stated that they were afraid of setting up businesses for fear of attacks and theft.

Older women with disabilities face barriers in meaningfully engaging in **income opportunities** to alleviate their food insecurity. A major challenge is the disability state that prevented most of the participants from venturing out of their homes. Externally older women with disabilities faced both environmental and economic barriers; economic in the form high cost of assistive devices like wheelchairs which would have helped them adapt to their environment and access income and purchase food, environmentally the uneven terrain, unfriendly public transport, and inaccessible buildings place barriers for older women with disabilities to move freely and engage in gainful income activities like other members of the community. According to Kabare (2018) he posits that persons with disabilities in Kenya face several barriers in accessing employment and social services. He further states that high poverty levels have strong correlation with disability and increased likelihood of food insecurity, poor health, and sanitation. On the other hand, Bigby (2004), depicts the multi-layered social contexts in which people grow old, these range from immediate relations family and friends, meso-level organizations and social services, macro social structural aspects. Each level of the social context impacts both directly and indirectly on the development, and opportunities available to the older person with disabilities. This study deployed two theories namely intersectionality and vulnerability theories respectively. The intersectional theory operates from the premise that people live multiple, layered identities that emerge from social relations, history and power structures hence determining how one experiences oppression, discrimination, and disadvantage (WREC, 2004). This study's findings drew correlations with this theory looking at the multiple vulnerability layers reported by the study participants. Intersectionality theme in this study identified personal level vulnerabilities drawn

from the findings including, older women with disabilities health conditions that seemed to exacerbate their disability conditions as well increase their food insecurity due to competing priority needs between health and food. Another intersectionality lens is older women with disabilities and mental health well-being where negative social conditions like discrimination, neglect, and isolation contribute to food insecurity due to prevailing perception that older women with disabilities have nothing meaningful to offer. This looked at ongoing experience of marginalization as an intersecting theme, that runs across the identified themes; the lack of income, lack of dependable social networks, lack of access to resources owing to immobility, lack of safety and security all depict ongoing layers of exclusion of older women with disabilities as ongoing barriers to alleviating food insecurity. Intersectionality calls for an in-depth look at multiple burdens faced by marginalized groups to obtain discrete vulnerability trends. The vulnerability theory further bolsters the intersectionality argument, according to Hansson et al, (2020) the approach to vulnerability in disaster as proneness of people to experience adverse outcome due to hazard impacts. They argue that factors increasing vulnerability should include beyond exposure to risks, susceptibility, and coping capacity, hence vulnerability should be looked at as a dynamic characteristic since it's because of interactions between individual, socio-cultural factors that are bound to change overtime. This argues against inherent nature of vulnerability or its uniformity. The study findings picked up poor health, lack of income, food insecurity, lack of safety and security, lack of access to resources. While all these themes seem to cut across most of the participants, there were distinctions on aspects of social networks and how these either reduced or increased food insecurity, access to assistive devices by some of the older women with disabilities means they

could at least move around easily than their counter parts who didn't have assistive devices.

5.3. Conclusion of the Study

Based on the findings, the study made the following conclusions in line with the research questions.

What challenges do older women with physical disabilities face in accessing food in Dagoretti South constituency?

Older women with physical disabilities faced varied challenges in accessing food in Dagoretti South constituency including:

Lack of income to alleviate food insecurity due to their disability condition, older women with disability could not engage in income generating activities as other members of the community. As posited by (Henry & Golam, 2021) they noted that older women faced more income insecurity, due to wage discrimination and having to leave work for caregiving making them more susceptible to food insecurity. Most of the older women in the study area relied on petty trade, and remittances from family, neighbors, and other well-wishers. Community self-help groups provided opportunities for older women to gain income through group income generating activities. **Poor physical and mental well-being:** disability was associated with sickness, poor physical health hindered the participation of older women with disabilities in income generating opportunities since they were too weak to engage, and employers opted not to employ them due to their frail condition.

Cost of medication competed with food needs and when diseases spiked the coping strategy applied was to reduce number of meals.

Mental health well-being of older women with disabilities was affected owing to discrimination, neglect, isolation this prevented them from seeking income opportunities as they felt inadequate and unwanted. According to Simone et al, 23% of the global disease burden can be attributed to conditions that affect older persons as caused by chronic illnesses among this age group.

Self-help initiatives support mental wellbeing through group psychosocial activities that helped members manage stress, hence supporting their mental well-being. **Poor security and safety:**

Loss of property and businesses and physical attacks by criminal gangs hindered women from setting up businesses for fear of attacks. Perceived defenselessness of older women with disabilities made them susceptible to attacks from criminal gangs and to occasioned loss of their property. This finding is further supported by Mc Sherry et al, who posited that gender-based violence cases increase in the wake of disasters. **Lack of access to food** high cost of food in the local markets reduced the ability of older women to purchase food to alleviate their food insecurity. Government food distribution initiatives were currently lacking in the area post Covid-19 pandemic creating gaps in the quantity of food available to older women with disabilities. Garschagen and Michael posit that extreme natural and manmade events turn into disasters when people are vulnerable and poor, food insecurity among older women increases their vulnerability especially when sufficient food was already lacking before a disaster thus furthering access barriers to food for this group. Prevailing drought crisis had affected the supply of food in the market pushing up prices and making most basic food commodities unaffordable for older women with disabilities. **Lack of access to resources** immobility is at two levels at personal level

having a physical disability hindered movement of older women with disabilities to engage in income generating activities or purchase food.

Cost of purchase and maintenance of assistive devices like wheelchairs excluded most older women with disabilities who could afford it, this hindered their ability to move freely to purchase food or engage in income generating activities. **Why do existing income options and social networks including (older people's cash transfers, wealth ownership, community care, familial care) fall short of reducing food vulnerabilities among older women with disability in Dagoretti South Constituency.** Older people cash transfer was limited in terms of amount (2000kshs) not enough to cater for food needs considering other priorities like medication. For those receiving cash transfers the massive delays in disbursement deemed it ineffective in alleviating food insecurity. The UN women rapid gender assessment report of (2021) shows that prior to the covid-19 pandemic, older women's access to social pensions was limited to 26% as compared to 39% of older men globally depicting the disparity that exists making older women more vulnerable and without any cushioning against disaster risks. Familial care and support are an important source of income to purchase food and for supporting in food preparation including self-care, this support is sometimes irregular and inadequate to cater for all priority needs including food and medication. Although familial care is important in addressing food vulnerabilities it did not apply to all older women with disabilities others were neglected and abandoned by family members. Community care, and support from well-wishers provided an alternative social network for those abandoned by their family members, this support varied from time to time and from participant to participant some depending on church members, community groups and neighbors,

this was not a uniform source of support to all older women with disabilities and was based on built relations overtime. Self-help group members benefited from financial and psychosocial support, but the benefits did not go beyond group members. Kauka and Jackline (2018), further posit that although the family structure remains a key support source for older persons, this structure has changed rapidly in urban areas thus the care function is no longer guaranteed, due to economic pressures, changing social values. **How do the intersecting vulnerabilities experienced by older women, frame disadvantages and increase food insecurity among older women with disabilities?** vulnerabilities intersect at multiple points to increase food insecurity among older women with disabilities, at the primary level is old age, gender, and disability, the second level the study participants faced varied levels of vulnerability expressed through; poor physical and mental health, lack of income opportunities, lack of access to food, lack of security and safety, and inadequate social protection and familial support, as well as a lack of access to resources. All these vulnerability factors interplay with differing intensities to increase food insecurity among older women with disabilities, some of the external vulnerability factors seemed to evolve with time.

Therefore based on the study finding a look at the challenges that older women with physical disabilities faced in accessing food in Dagoretti South constituency, further on why the existing income options and social networks including (older people's cash transfers, wealth ownership, community care, familial care) fell short of reducing food vulnerabilities among older women with disability in Dagoretti South constituency, and how the intersecting vulnerabilities experienced by older women, framed disadvantages and increased food insecurity among older women with

disabilities, the study was able to identify a variety of challenges as highlighted by study participants as contributors to their food insecurity including lack of income, poor physical and mental health, lack of security, lack of access to food and, lack of access to resources, these cut across all study participants but with varied severity and contribution to food insecurity, social networks appeared to both alleviate food insecurity to some extent but also on the contrary contributed to food insecurity. In alleviating food insecurity social networks among participants with strong connections to social networks got support in addressing their food needs through family remittances, food contributions from relatives, well-wishers like-churches, neighbors, community-based organizations. On the other hand, social networks and income options like government social protection had fell short in addressing food insecurity due to their unpredictability, delays, and limited amounts in the case of government cash transfers, neglect by family members, and linked to the first research question competing needs like ill-health meant applying negative coping strategies like skipping meals which further contributed to poor health. Intersectionality which is the key focus of this study is presented through layered levels of food insecurity vulnerability starting at individual level where old-age, disability and gender further contributed to varied challenges to the study participants who acknowledge their deplorable food insecurity situation as being as a result of their old-age and disability, on the next layer most of the disability and physical impairment was as a result chronic diseases, which placed barriers to their active engagement in economic and social activities, also increased their proneness to violent attacks including sexual and gender based violence. Physical disability placed movement barriers which was exacerbated by the high cost of assistive devices thus increasing food insecurity. The

participants of the focus group discussion who were used as a control in this study showed some level of resilience to food insecurity by being part of a community-based self-help group that has income generating activities that provided some income to support members' food needs, while also providing psychosocial social support. Lovell and Twigg, (2019) argue that most disaster risk reduction interventions, policies, and research tend to focus on vulnerable and marginalized groups as a collective, intersectional approach to vulnerability reduction must therefore take complex contextual realities into consideration to ensure meaningful targeting of vulnerable groups like older women with disabilities.

5.4. Recommendations

Based on the findings of the study the following recommendations were proposed:

- The study found that out of all the study participants apart from one were registered and benefitting from the OPCT, this study recommends that the ministry of special programmes should ensure that older women living with disabilities in Dagoretti south constituency are targeted for the older persons cash transfer (OPCT).
- The role of community-based self-help groups in addressing food insecurity among older women with physical disabilities was commended by most of the participants interviewed this study recommends that such organizations are supported with funding to increase their coverage in the community.
- Government of Kenya should have a policy framework that focuses on food distribution programs in urban informal areas ensuring vulnerable groups like older women with physical disabilities have regular access to food.

- The government should ensure that older women with physical disabilities access health care services to break the cycle of disease and hunger among this group.

5.5. Proposed areas for future research

This study focused on socio-economic factors influencing food insecurity among older women with disability living in informal urban settlements. A suggestion for further research includes inclusive social protection strategies to address access barriers and ensure older persons with disabilities are protected from disaster risks including food insecurity.

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APPENDICES

Appendix 1: Focus Group Discussion guide

Introduction

Dear respondent,

My name is Ayisha Nuru Mohamed. I am a student at University of Nairobi taking a master's degree in **Advanced Disaster Management**. I am conducting a study that looks to, Explore the Socio-Economic factors influencing food insecurity among older women with physical disabilities in informal urban settlements: A case of Dagoretti South constituency. Kindly give me 1 hour of your time. This study is for academic use only. In this regard, the responses obtained will be handled confidentially.

1. What types of disasters are experienced here? Is there a disaster committee?
2. How are the community members managing their food needs? What kind of older women live in this locality?
3. Describe your/ your organization's role in supporting older women living with disability in the informal settlements in Dagoretti South. What are some of the problems faced by female older persons with physical disabilities?
4. How are older women with disabilities managing their food needs? What challenges do they face in addressing their food needs?
5. Which are the common income and livelihoods options for older women with physical disabilities in this location?
6. How is the social network like in this location? With the social networks you have described, do you think they are a source of financial and food support for older women with disabilities?
7. Do you think these income covers their food needs? If not, why is this the case? What are the disadvantages related to old age, gender and disability, and how does each increase food insecurity?
8. Are there government or non-governmental projects or initiatives that support food interventions in this location?
9. If yes, who would be the typical target persons for these interventions? Do you think their target reach older women with disabilities?

Thank you for your participation.

Appendix 2:Key Informant Interview Guide

Dear respondent,

My name is Ayisha Nuru Mohamed. I am a student at University of Nairobi taking a master's degree in **Advanced Disaster Management**. I would like to get your perspectives on the Socio-Economic factors that influence food insecurity among older women with physical disabilities in informal urban settlements with a focus on Dagoretti South constituency. Kindly give me 1 hour of your time. This study is for academic purposes. In this regard, the responses obtained will be handled confidentially.

1. What is the food insecurity situation in this location?
2. Which are the drivers of food insecurity in this location?
3. Which vulnerable groups are impacted most by food insecurity? Name them, why are they impacted more?
4. What are the common disaster risks in this location? List (probe for food insecurity, environmental hazards)
5. What are some of the Disaster risk reduction initiatives in this informal urban settlement? Who supports this?
6. Which are the main sources of food in this location?
7. What are the main challenges of accessing these food sources? List this
8. How would these challenges affect older women with disabilities?
9. Explain the coping strategies related to meeting food needs for the vulnerable groups you have mentioned above?
10. How do these coping strategies apply to older women with disabilities?
11. Which are the main income sources in this location? list
12. In your opinion which groups (e.g., youth, men, women) engage in these income activities?
13. Would you say the mentioned income sources are accessible to older women with disabilities? Explain
14. What are some of the social protection interventions in this informal urban settlement? (Probe, amount, frequency, coverage)
15. How would you rate the social protection's capacity in addressing older women with disability's food needs? Is it adequate? if not why?

Thank you for taking part in this study, I will share the findings once completed.

Appendix 3: In-depth Interview Schedule.

Introduction

Dear respondent,

My name is Ayisha Nuru Mohamed an MA student at University of Nairobi taking a master's degree in **Advanced Disaster Management**. I am conducting a study focusing on exploring the state of food insecurity in this informal urban settlement, and how that affect older women with disabilities. Kindly, give me 2 hours of your time and we can take health breaks in between for your comfort. This study is for academic use only, responses obtained will be handled confidentially.

1. Tell me a little bit about yourself- level of education, marital status?
2. How did you end up living here and how did you become disabled? (Observe for type of housing, housing materials used, sanitation).
3. Tell me about your family? (Probe for children, close family members etc- (probe how often they interact) Do you have any care giver? Are you the head of your household? (**Explain in terms of managing all family needs**)
4. Could you describe some of the challenges you face personally and environmentally living in this community? (Probe for accessibility, movement, safety)
5. Let's expound more on the challenge you have described, tell me how these affect your ability to access and address your food needs?
6. I understand the challenges might not have the same impact on you, which of the challenges would you say affects your access to food most (rank).
7. Considering all these challenges, you have already mentioned, could you mention how you get your food daily?
8. Would you say that that the food that you get is enough for you and your family? (Probe for 3balanced meals a day)
9. How do you earn an income to cater for your daily needs?
10. Currently do you, have other additional income sources apart from what you have just mentioned to me? (Examples: OPCT, SDCT, family, community support,) (for any of the option mentioned ask how much a range- if monetary if in kind list)
11. Let's look at the income you receive in relation to your food needs, would you say this income covers your food needs i.e., able to buy enough food for you and your family?
12. How would you describe your relationship with family, neighbors, other women in the community? (Probe for frequency of engagement)
13. These relationships that you are part of do they offer you any support? what kind of support do you get? (list)

14. Would you say that part of the support you have described helps you address your food needs? If you agree tell me how? If you disagree, why is it?
15. If we could look at all the income you get from all the sources, you mention what cost takes up most of it? Could you explain more?
16. From your experience living in this locality would you consider lack/inadequate of food to be among the top disaster risks? which are the others?
17. Describe to me the times that you and your family face most scarcity of food? Why is this the case?
18. Let's explore the ways by which you and your family access food during these times? (Probe for coping strategies either positive or negative)
19. During these times of scarcity do you receive any support from anywhere? If you agree, what kind of support do you get? (Probe for government support, family, church, mosque etc.)
20. If you agree above, does the support you get assist you to build back better and better prepare for any future food scarcity threat? If you disagree why? If you agree explain how?

Thank you for taking time to engage in this study.

Appendix 4: Observation guide

At the household level:

1. Type of house- permanent, semi-permanent? building materials used to construct, size of the house
2. Accessibility and set-up of the house for a person with physical disability
3. Sanitation and general cleanliness of the house and the surrounding areas
4. Personal self-care- cleanliness, clothes,
5. Emotions and general expressions
6. Availability of assistive devices e.g., wheelchairs
7. Availability of a care giver – someone who supports with movement
8. Engagement in any income generating activities - e.g., small scale trade,
9. Mobile phone ownership

Neighborhood:

1. General layout of the surrounding and accessibility for person with physical disability
2. Status of roads and paths in the neighborhood
3. Availability Street lighting
4. Distance of shops and grocery kiosks
5. Distance and availability of water points
6. Health facilities
7. Churches /mosques in the vicinity

During FGD

1. Group interaction and relations
2. Group cohesion e.g., joint prayers, joint activities
3. Group activities engaged e.g., income generating activities
4. Accessibility of the area and proximity to their homes
5. Number of them with assistive devices like wheelchairs, or care givers for support for those with disability. Number of participants with mobile phones

Appendix 5: University of Nairobi field work letter



UNIVERSITY OF NAIROBI
DEPARTMENT OF SOCIOLOGY & SOCIAL WORK

Fax 254-2-245566
Telex 22095
Varsity Nairobi Kenya
Tel. 318262/5 Ext. 28167

P.O. Box 30197, Nairobi
Kenya
Email: dept-sociology@uonbi.ac.ke

13th June, 2022

TO WHOM IT MAY CONCERN


RE: AYISHA NURU MOHAMMED - C50/67548/2013

Through this letter, I wish to confirm that the above named is a bonafide postgraduate student at the Department of Sociology, Social Work & African Women Studies, University of Nairobi. She has presented her project proposal entitled; *“Exploring Socio-Economic Factors Influencing Food Insecurity among Older women With Disabilities Living In Informal Urban Settlements. A case of Dagoreti South Constituency”*

Ayisha is required to collect data pertaining to the research problem from the selected organization to enable her complete her thesis which is a requirement of the Master’s degree.

Kindly give her any assistance she may need.

Thank you.


Prof. C.B.K. Nzioka
Chairman, Department of Sociology, Social Work & AWS



Appendix 6: NACOSTI permit



THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

1. The License is valid for the proposed research, location and specified period
2. The License any rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies
5. The License does not give authority to transfer research materials
6. NACOSTI may monitor and evaluate the licensed research project
7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one of completion of the research
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

Appendix 7: Nairobi County Commissioner authorization letters



OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT
STATE DEPARTMENT FOR INTERIOR AND CITIZEN SERVICES

Telegrams.....
Telephone: Nairobi 316845, 341666
When replying please quote

COUNTY COMMISSIONER
NAIROBI COUNTY
P.O. BOX 30124-00100
NAIROBI

REF NO. ED 10/6 VOL. XXV (40)

28th June, 2022

Ayisha Nuru Mohamed
P.O. BOX 48784 - 00100
NAIROBI



RE: RESEARCH AUTHORIZATION

Your letter dated 24th June, 2022 refers.

This office has no objection and authority is hereby granted to conduct a research on "Exploring socio-economic factors influencing food insecurity among older women with Disabilities living in informal urban settlements" within Dagoretti Sub County for a period of two (2) weeks starting from 30th June, 2022 to 15th July, 2022.



FLORA MWOROA
COUNTY COMMISSIONER

CC: Deputy County Commissioner
DAGORETTI SUB COUNTY



**THE PRESIDENCY
MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT**

Telegrams. District Dagoretti
Telephone:
When replying please quote

DEPUTY COUNTY COMMISSIONER
DAGORETTI SUB-COUNTY
P.O.BOX. 30124-00100
NAIROBI.

RE: DAGO/ED/10/9 Vol. II/ (152)

Date: 30th June, 2022.

Assistant County Commissioner,
Kawangware Division.

Assistant County Commissioner,
Waithaka Division.

RE: RESEARCH AUTHORIZATION, AYISHA NURU MOHAMED

The above subject matter refers.

Please note that Ayisha Nuru Mohamed has been authorized to conduct a research on "Exploring socio-economic factors influencing food insecurity among older women with disabilities living in informal urban settlements" within Dagoretti sub-county for a period of two (2) weeks starting from 30th June, 2022 to 15th July, 2022.

This is therefore to request that you accord him with the necessary cooperation.



**PERIS MAINA,
FOR: DEPUTY COUNTY COMMISSIONER,
DAGORETTI SUB-COUNTY.**