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EFFECTS OF HEALTH CARE SYSTEM RESPONSIVENESS ON DIABETES MANAGEMENT AMONG THE PATIENTS SEEKING CARE AT ST. MARY'S MISSION HOSPITAL IN NAIROBI

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Abstract

Purpose: Diabetes is one of the non-communicable diseases (NCDs) of great global public health and development concern. This NCD has adverse effects on the social well-being of patients, their households, and the whole society. The overall objective of this study was to determine the effects of health care system responsiveness on diabetes management among the patients seeking care at St. Mary's Mission Hospital in Nairobi.

Methodology: This study drew on descriptive study design, involving quantitative and qualitative methods, particularly closed and open questions. The sample size was 269 respondents included in the study through purposive and convenient sampling. These sampling techniques were preferred in this research since data was gathered from the respondents during their visit to the hospital. The researcher collected data through interviewer-administered questionnaires containing both open and closed questions. Qualitative data was grouped, coded, and categorized, picking on cross-cutting issues, then compiled, analysed, and interpreted accordingly. Quantitative data was coded then entered into Statistical Package for Social Sciences (SPSS) version 22 for windows. SPSS was used to run frequency distributions and cross-tabulations for analysis and interpretation, and Microsoft Excel was used for graphical presentation.

Findings: The study established unequal distribution of health care facilities for diabetes management across the Counties in Kenya. This leads to a late diabetes diagnosis. The respondents reported that the health care system in Kenya does not offer an affordable quality of care to diabetes patients. This makes some patients skip days or weeks without medication.

Unique contribution to theory, practice and policy: The study recommends the hospitals to form support groups or devise other forums for patients' education and encouragement on diabetes management. They should also look into the possibilities of having diabetes services in one building. This would ensure rapid diagnostic tests and treatment for diabetes patients.

Key Words: *Health Care System Responsiveness and Diabetes Management*

Introduction

NCDs threaten to reverse substantial health gains achieved in recent decades, and the challenge would impair sustainable development for Low-Middle-Income Countries (LMICs) (Galambos & Sturchio, 2014). Massive national income percentage is channeled towards mitigating the impacts of diseases like diabetes, which are long-term, yet their prevalence is continuing to increase across the nations. The 2030 Agenda for Sustainable Development recognizes NCDs like diabetes as significant obstacles to sustainable development (WHO, 2021). A severe public health challenge imposes an intense burden on human beings and society (Beckles & Thompson, 2001). Diabetes is considered the world's quickest-growing persistent sickness (Bird, Lemstra, Rogers & Moraros, 2015). Diabetes can purpose undesirable results in the components of the human body system; consequently, overwhelming complications of this illness are evidence of the importance of its attention (Ayah et al., 2013). The WHO has expected twenty four million cases of diabetic neuropathy, six million amputations, and five million retinopathies because of diabetes. Heart problems (myocardial ischemia, attacks, and peripheral vascular ailments) are the primary reason for losing life in people with diabetes (Tol et al., 2017). Diabetes and its complications bring about tremendous financial decrease to patients and households, health structures, and countrywide economies through direct medical expenses and lack of work and wages (WHO, 2016). The world health expenses to treat and prevent diabetes and its complications were about 232 billion US dollars in 2007, an expected to rise to 302 billion US dollars by 2025 (Dieren et al., 2010).

Around 422 million persons have diabetes globally. This accounts for about 8.5% of the general international's population, yet the prevalence of the disease has been unexpectedly increasing in LMICs (Ayah et al., 2013). Diabetes is a crucial motive of lack of eyesight, kidney malfunction, coronary heart attacks, stroke, and accelerated lower limb amputation (Ayah et al., 2013). Diabetes induced 1.5 million deaths in 2012, and a number of those deaths (43%) happened below 70 years and WHO predicts that diabetes might be the 7th predominant motive to loss of life in 2030 (Ayah et al., 2013). Because of diabetes complications, patients and families spend vast amounts of money, which could be used for development activities for the well-being of the members. Additionally, increased mortality rates resulting from diabetes imply loss of productivity, and income in families and the nation as a whole, affecting the socio-financial growth of families and the nation. The diabetes charge repercussions to society encompass direct charges to patients, their households, and hospitals, and oblique expenses to communities and nations, which may be the productiveness fees, and insubstantial costs, bringing about the unfavorable consequence on quality of life (Islam et al., 2013).

Statement of the Problem

Diabetes affects patients' lives and their households, and its management impacts their social well-being. Lack of proper diabetes management resources and information results in socioeconomic problems worsened by smoking, advanced cholesterol levels, weight problems, increased blood pressure, and scarcity of regular workouts. Diabetes causes additional social well-being difficulties resulting from complications such as persistent wounds, commas, and heart illnesses. These difficulties nearly regularly bring about long periods of hospitalization ensuing in massive hospital payments and loss of working hours, which poses extensive financial and social demanding situations, which can affect the patient's capacity to manage the ailment as well as their social well-being (Muga, & Muhati, 2016). In LMICs, for example, Kenya, numerous patients struggle to obtain primary diabetes care (Shannon et al., 2019). Despite the efforts and the techniques like Kenya Health Policy (2014-2030) and Kenya National Diabetes Strategy (2010-2015), through the Ministry of Health and the Ministry of

Public Health and Sanitation, to make sure effective control of diabetes, more than 8,700 diabetes-associated demises were recorded in Kenya in 2015 (Shannon et al. 2019). Nearly all the deaths occurred in patients below 60 years. Diabetes patients in Kenya in recent times have encountered many obstacles to care that would consist of distance to the hospital, insufficient knowledge, drug treatments unaffordability, unavailability of diagnostic and monitoring tools, and inefficient nearby hospital structure capability.

Following the promulgation of the Kenyan constitution in 2010, the health system is expected to offer essential primary health care services through decentralized mechanisms. The National Ministry of Health has coverage and regulatory roles, and the 47 county health structures have provider provision roles for more efficient health care delivery (Oyando et al., 2019). Despite these provisions, the barriers mentioned above to health care services lead to poor diabetes management among the patients. These account for increased diabetes complications and frequent hospitalizations that affect socioeconomic development. These affect the social well-being of patients and their relatives who have to incur catastrophic health care expenses and make several sacrifices to provide whatever services their patients require. Diabetes cases are on the increase in Kenya, and patients are suffering from the illness at an earlier age than those in evolved worldwide nations. Kenya's public health care is organized into six tiers. Each of these is predicted to provide preventive, promotive, curative, and rehabilitative services, as noted in the Kenya Essential Package for Health, which incorporates interventions and services aimed at diabetes control (Oyando et al., 2019). Kenyans are at a threat of acquiring complications because they go to hospitals when the ailment has progressed (McFerran, 2008 as noted in Muga & Muhati 2016: 142). However, consistent with the Ministry of Public Health of Kenya (as said in EL-busaidy et al 2014: 1), above 50% of health centres hospitalizations and 55% of health facilities demises in Kenya are from NCDs and diabetes is one of the main. This has led to an increased social burden, particularly in low-income households. Some patients have progressed to adverse diabetes complications like kidney failure, loss of eyesight, and amputation of body parts. This reduces productivity in affected families with adverse outcomes at the social and economic improvement of the nation.

This study is concerned with how diabetes and its management affect patients' overall social well-being and their households as an essential dimension of livelihood resilience and development. The effects on the income status and stigma associated with diabetes lead to poor adherence to diabetes management strategies. This, in turn, leads to complications that hinder the patients' ability to manage their condition. In Kenya, initiatives to design effective diabetes management strategies to prevent the patients from progressing to adverse complications are still insufficient. Little is documented on how the responsiveness of the health system enhance diabetes management and prevent the rate at which the disease threatens to destabilize the overall social well-being of the patients and their families in Kenya.

Research Objective

To analyse the effects of health care system responsiveness on diabetes management among the patients seeking care at St. Mary's Mission Hospital in Nairobi.

Theoretical Review

Structural Violence Theory

The idea of structural violence first emerged within the 1960s to provide an explanation for disparities in health and development between rich nations and impoverished submit-colonial states (Hirchfeld, 2017). The idea of structural violence developed out of Dependency Theory

and defined poverty and ailment within the developing international because the manufactured from exploitation with the aid of colonial or neo-colonial powers. This theoretical framework can display dynamics of societal practices and structural forces that operate across a couple of dimensions of peoples' lives in approaches that may not right away appear associated with health (Page-Reeves & Janet et al., 2013:33). The term "Structural Violence" as implemented in health and healthcare studies is attributed to Farmer drawing at the work of Latin American liberation theologians and Johan Galtung (1969; 1990). The liberation theologians espoused an ethical vital for the Church in Latin America to move beyond responding to the desires of the poor people to actively undermine and challenge the social and economic inequality and promote social justice (Page-Reeves & Janet et al., 2013).

This structural violence theory is appropriate to this study about diabetes management and the social well-being of the patients in the sense that the social, economic, political, and religious structures contribute to the reduction of societal disparities, for example, health disparities hence ensuring societal well-being. However, in some nations like Kenya, some Counties are more structurally developed, for instance, in health care facilities than other Counties. With structural inequity, the poor and marginalized experience violence due to lack of accessibility to timely health care facilities, which contributes to late diagnosis of chronic diseases such as diabetes at advanced stages when the complications are irreversible. This leads to a social weight to the relatives and the community, affecting their overall well-being. This is in line with the argument in the authors of a review of the Southeast Asia situation as cited in Galambos & Sturchio (2014: 7) that NCDs affect millions of lives and often the lives of those who have the least and besides, the inequality in risk factors and disease impact between groups of lower socioeconomic status and those of higher socioeconomic status appears to be a global phenomenon (Galambos & Sturchio, 2014).

Health system responsiveness and quality of patient care

Diabetes may be asymptomatic for prolonged durations earlier than diagnosis. As much as half of persons with diabetes, mainly in LMICs, may not have been identified, many have complications at the time of diagnosis (Harris, 2008). This is probably because of inequality in health care structures responsiveness. A responsive health system encourages people to take care, allows them to interact better with health care providers, and allows better health information communication to the affected person, enhancing the patients' health status (Sajjadi et al., 2015). Some patients in structurally underprivileged areas with bad health care situations lack early prognosis in comparison to the most privileged areas. Individuals recognized with diabetes have to concern themselves approximately with various problems, like blood sugar level, food regimen, and a complex medicinal drug routine, which they are no longer efficiently facilitated to cope with (Krizner, 2019). Diabetes care is complex as it consists of an aggregate of clinical monitoring, the usage of medicines, nutrition, bodily exercise, and tracking of blood glucose (Maar et al., 2011). Diabetes patients frequently point at price, accessibility, competing priorities, or lack of information when they have problem adhering to a remedy (Appold, 2016). Many people who have diabetes live in societies that do not recognize their scenario. The belief that people with severe diabetes inject insulin stays commonplace in the preferred population and with a few health care specialists (Debono & Cachia, 2007). There is a gap in health education about diabetes and its control among the health care providers, the families, and society. With this gap, the prevalence of diabetes is anticipated to maintain rising over the years as hence continue being a challenge to the patients, households, and the whole society. The lack of know-how on diabetes manage blocks the patients' capacity to manage their sickness. This

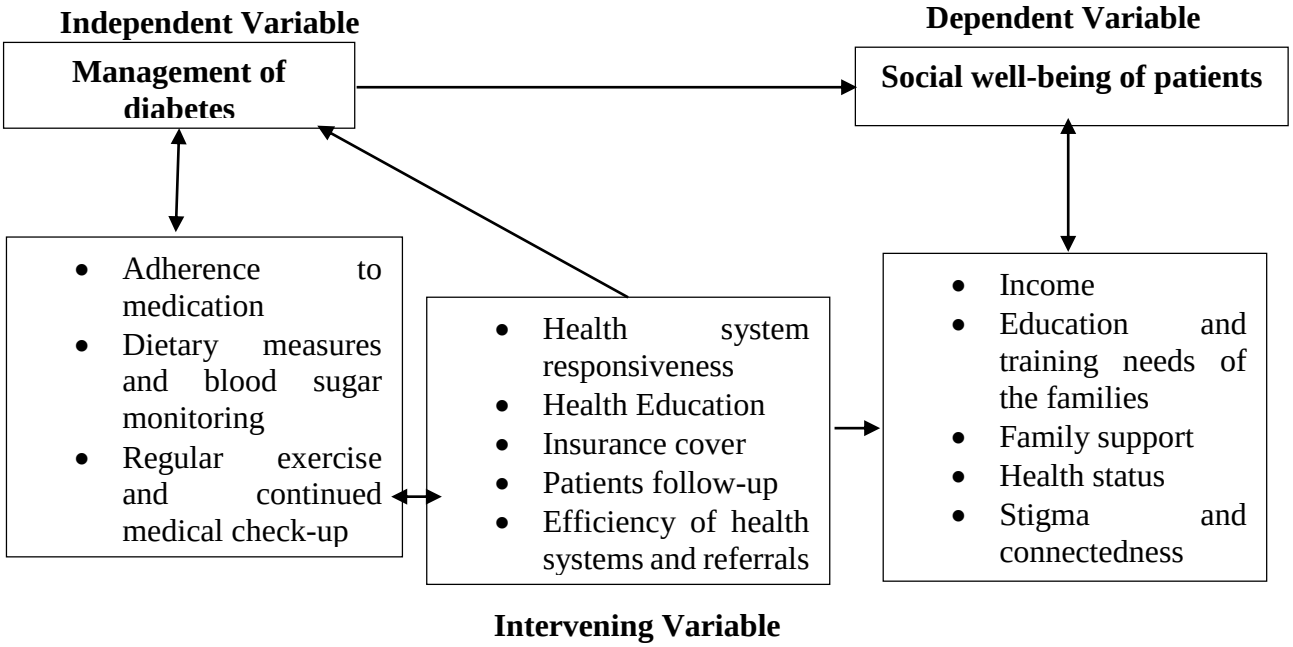
is important, as higher patient self-control potential is associated with progressed diabetes manage (Venkaraman, Kannan & Mohan, 2009).

Perceived quality of life decrease for diabetes patients because of lack of dramatic ailment-associated signs and symptoms, and side effects of interventions, affecting patient compliance with medical advice (Venkaraman, Kannan & Mohan, 2009). The unwillingness of the family members would be, therefore, a significant challenge to the diabetic patient. Besides, the patient's perception and awareness of diabetes play a tremendous role in managing the disease (Rintala, Paavilainen & Kurki, 2013). If the patient has adequate knowledge of diabetes and perceives that diabetes is a severe condition with serious complications that would affect their social well-being and that of their family and the entire society, they will have the necessary drive to manage their condition effectively. The high financial costs of treatment are a significant challenge to the economic well-being of the patients. They could reduce them to poverty, which contributes to poor adherence to remedy. Social support systems are core to patients' management of diabetes and their well-being. Diabetes manage is feasible whilst detected early and controlled efficiently (Shannon et al., 2019). However, if undetected or poorly controlled, the illness can result in excessive and everlasting complications, together with loss of eyesight, cardiovascular sickness, renal sickness, and amputation of the lower extremities (Shannon et al., 2019). Study has confirmed that low mood and melancholy are famous among men and women with diabetes (Nash, 2014). An individual with diabetes is much more likely to be considered depressed than a person not having diabetes (Barnard et al.,2006, as said in Nash, 2014:138). The burden of diabetes care, with its crucial life-style modifications and unremitting strength of control, can detrimentally have an impact at the quality of life of the individual having the illness (Rubin, 2000 as noted in Nash, 2014:138). Diabetes impacts patients' lives, and its presence deteriorates a person's quality of life (Trikkalinou et al., 2017). Therefore, the number one aim of diabetes early diagnosis and treatment is the quality of lifestyles (Trikkalinou et al., 2017).

The presence of diabetes management can also affect the amount and awesome of an affected individual's relationships. As patients begin to institute changes in each day conduct to control diabetes maximum efficaciously, cherished ones might also additionally begin to rebel (Debono & Boland, 2007). Friends or family members can also start to encourage modifications for self-care although the affected person may be unwilling to change, that is viable in younger, growing diabetic patients (Debono & Boland, 2007). In the preliminary stages of the ailment, the family members and the friends appear supportive and would love the patients to be well. However, because diabetes is a long-term disease, some of the family members the friends get tired of the management demands of the patient, and they subsequently surrender their initial enthusiasm to support their ill member. This diminishes the quality of life and patients' well-being since they may feel neglected and burdensome, leading them to give up their self-care management. This implies more complications, long-period hospitalization, and drained family earnings, which would affect the family members' education and their potential to meet basic needs.

Conceptual Framework

Figure 1 Conceptual Framework



Research Methodology

This study used mixed methods descriptive research design, which involved quantitative and qualitative methods. The research population was diabetes 900 patients aged 18 years and above who seeking treatment in St. Mary's Mission Hospital, Nairobi, from October 2021. The study used purposive and convenience sampling techniques. The sample size of 269 respondents was derived using Fisher's (1998) formulation and Mugenda & Mugenda (2003). Data was collected through interviewer-administered questionnaires containing both open and closed questions. Qualitative data was manually grouped, coded, and categorized, picking on cross-cutting issues according to the frequency of responses per question, then compiled, analyzed, and interpreted accordingly. Quantitative information was coded then keyed into Statistical Package for Social Sciences (SPSS) version 22 for windows. SPSS was used to run frequency distributions and cross-tabulations for analysis and interpretation. Microsoft Excel was used for graphical presentation.

Results

Respondents' Demographic Characteristics

The demographic characteristics of the study included the data on respondents 'gender, age, marital status, county of origin, level of education, sources of income, and the duration of experience with diabetes management.

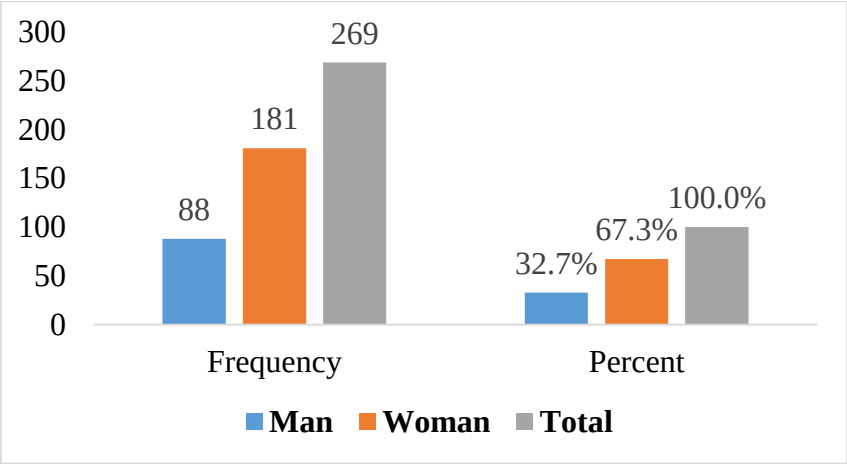


Figure 2: Summary of respondents by gender

The majority of the respondents (67.3 %, 181 n=269) were women, and 32.7 were men. These findings could imply that more women than men arrive for hospital care at the facility.

Respondents' Age

The study participants' age is shown in figure 3 below:

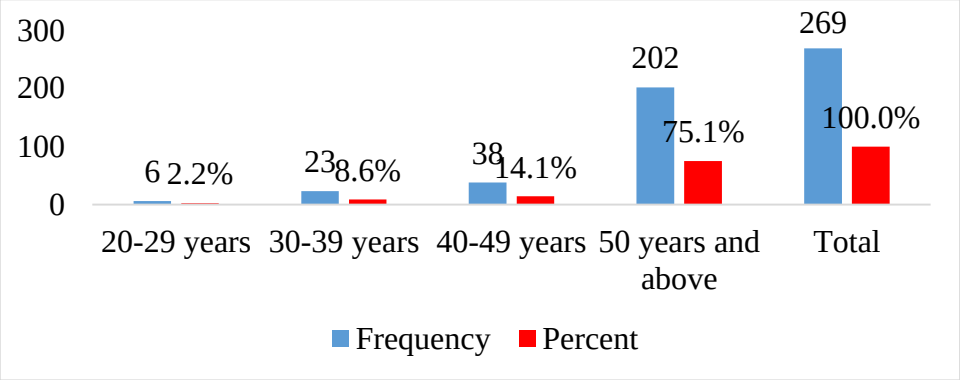


Figure 3: Summary respondents 'age

The majority (75.1%, 202 n=269) of the respondents were 50 years of age and above. 14.1% (38) were aged between 40-49 years, 8.6 % (23) were aged between 30-39 years, and 2.2% (6) were aged between 20-29 years. In this study, the young people with diabetes confirmed that diabetes cuts across all ages. Most of those patients aged 50 years and above were retired and had to depend on pension or family members for their diabetes management support, such as medication and diet. The retired citizens are not able to participate in the socio-economic development of their families and the society, which agrees with the argument by Medici, Hennis & Alleyne (2016) that LMICs like Kenya face a more remarkable boom in NCDs like diabetes burden due to hastily growing and aging populations and these sicknesses drive inequity, make contributions to poorer financial outcomes for individuals, communities, and societies.

Table 1: Respondents' County of origin

	Frequency	Percent
Mombasa	1	.4
Garissa	5	1.9
Wajir	2	.7
Mandera	6	2.2
Marsabit	2	.7
Isiolo	2	.7
Meru	8	3.0
Tharaka-Nithi	1	.4
Kitui	11	4.1
Machakos	20	7.4
Makueni	20	7.4
Nyandarua	5	1.9
Nyeri	11	4.1
Kirinyaga	2	.7
Murang'a	34	12.6
Kiambu	34	12.6
Turkana	2	.7
Nandi	1	.4
Laikipia	2	.7
Nakuru	6	2.2
Narok	2	.7
Kajiado	29	10.8
Kakamega	3	1.1
Vihiga	3	1.1
Busia	2	.7
Siaya	4	1.5
Kisumu	6	2.2
Homabay	2	.7
Migori	1	.4
Kisii	7	2.6
Nyamira	4	1.5
Nairobi City	24	8.9
Uganda (Nairobi)	2	.7
Ethiopia (Nairobi)	1	.4
South Sudan (Kajiado)	1	.4
India (Nairobi)	1	.4
Somalia (Nairobi)	2	.7
Total	**269**	**100.0**

The majority of the respondents were from Murang'a County and Kiambu County, with 34 (12.6%) respondents each representing the highest number of respondents combined (68) with a percentage of (25.2%). The respondents from other countries resided in the counties indicated in the brackets on the table above. These findings suggest that St. Mary's Mission Hospital, Nairobi serves patients from different counties in Kenya, giving some insight into diabetes management in the Kenyan health system. The hospital also serves patients from other countries who reside in Nairobi and Kajiado counties to access the hospital for their treatment. These patients expressed that the St. Mary's Mission Hospital offers quality care for diabetes patients compared to their countries of origin. The findings also indicate that the hospital is more easily accessed from some counties than others.

Respondents' Marital status

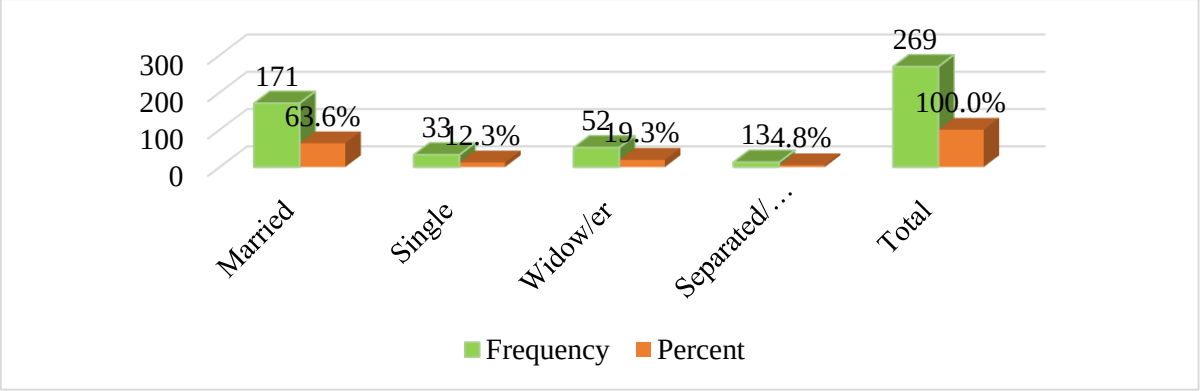


Figure 4: Summary of respondents' marital status

Majority of the respondents (63.6%, 171 n=269) were married, 12.3% (33) respondents were single, 19.3% (52) respondents were Window/er, and 4.8% (13) respondents were Separated/Divorced. Some of the married people aged 50 years and above were retired and depended on their family members for financial support on diabetes management, and others depended on pension. The majority of these respondents cannot enjoy their pension by going on vacation because the whole amount is spent on diabetes medication and diet, which are very expensive, reducing their quality of life. As a result of these expenses, people walking on the streets, especially diabetes patients, appear angry. This agrees with the argument by Nash (2014) that study has shown that low temper and melancholy are very common among diabetic patients. The findings show a possibility that married couples encourage their spouses to go to the hospital for effective diabetes management compared to people of another marital status. Hence, marriage could be a basis for proper diabetes management contributing to the social well-being of patients and their families.

Study participants' Level of education

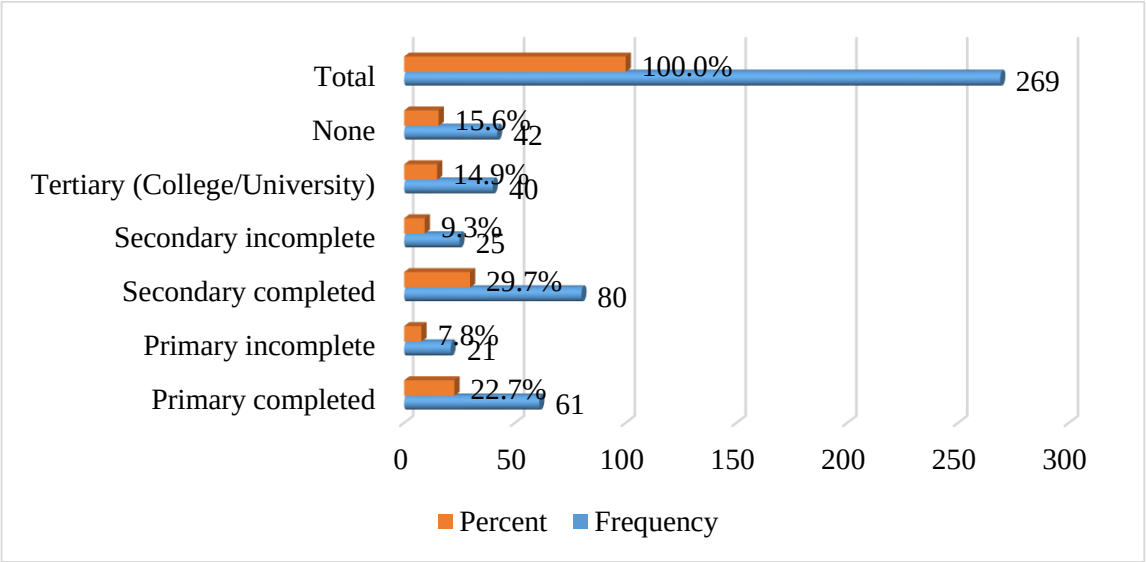


Figure 5: Education level of the respondents

The majority of the respondents (29.7%, 80 n=269) had completed secondary level accounting for the highest number of the respondents. However, these respondents had not progressed to the tertiary level of education. The findings show a difference in the prevalence of diabetes in terms of education level. With these differences, there is a likelihood that, as per the argument by Paula et al. (2008), people with higher education levels have a tendency to be healthier and live longer.A low education level as per the findings could indicate poor adherence to diabetes management strategies due to limited knowledge about diabetes complications and their effects on social well-being. Furthermore, according to Alwan (as cited in Khan & Khan, 2017: 2), without knowing about the diagnosis of a disease, one cannot manage an infection effectively.

Main sources of regular income

	Frequency	Percent
None	107	39.8
Self-employed	133	49.4
Salaried	23	8.6
Missionary	1	.4
Casual	5	1.9
Total	**269**	**100.0**

Table 2: Respondents source of Regular income

The majority of the respondents, 133 (49.4%), were self-employed in selling clothes, shopkeepers, farming, and selling vegetables. 107 (39.8%) respondents had no source of regular income. They said they had stopped working due to the demands for diabetes management and related health care. Others had retired and were on a pension while staying at home and depended on their family members and well-wishers for support. This confirms the argument by Dwyer & Mitchell (1999 as referenced in Bloom et al., 2013: 4) that sickness burden can impact economic increase through numerous methods, such as early retirement, and horrible expectancies regarding employment (McGarry, 2004 as stated in Bloom, et al., 2013: 4), and decreased productiveness (LopezCasasnovas, Rivera, & Currais, 2005 as cited in Bloom et al., 2013: 4). These elements may also make a contribution to decreasing exertions supply and growing the ratio of dependents to personnel (Bloom et al., 2013).Some patients who depended on family members for diabetes management requirements faced significant challenges. If the family members, who had their responsibilities, did not have the financial capacity to support their sick member, the patient stayed without medication and ate the wrong diet, which put them at risk of developing diabetes complications. As observed by Ciechanowski et al. (2001 cited in Waari, 2019:1), complications of diabetes result from poor adherence to best care practices, which affect the affected person's quality of life. This, in turn, increase death, disease, and the financial price of the illness to society.

	Frequency	Percent
One year	13	4.8
2-3 years	21	7.8
3-4 years	17	6.3
4-5 years	13	4.8
Five years and above	176	65.4
Less than one year	9	3.3
Newly diagnosed	20	7.4
Total	269	100.0

Table 3: The respondents' duration of diabetes management

As indicated in Table 3 above, most respondents had been managing diabetes for two years and above despite their inadequate income. The majority of the respondents (176) had managed diabetes for five years and above, accounting for the majority of the respondents. These findings portray that majority of the respondents had personal experiences for a substantive duration of how diabetes management has affected their social well-being over the years they have lived with it and the financial burden of diabetes management on them and their families. The following section presents the study findings and the discussion.

The effects of health care system responsiveness on diabetes management

Figure below presents how respondents view health care facilities' distribution for prompt diabetes diagnosis and quality of care.

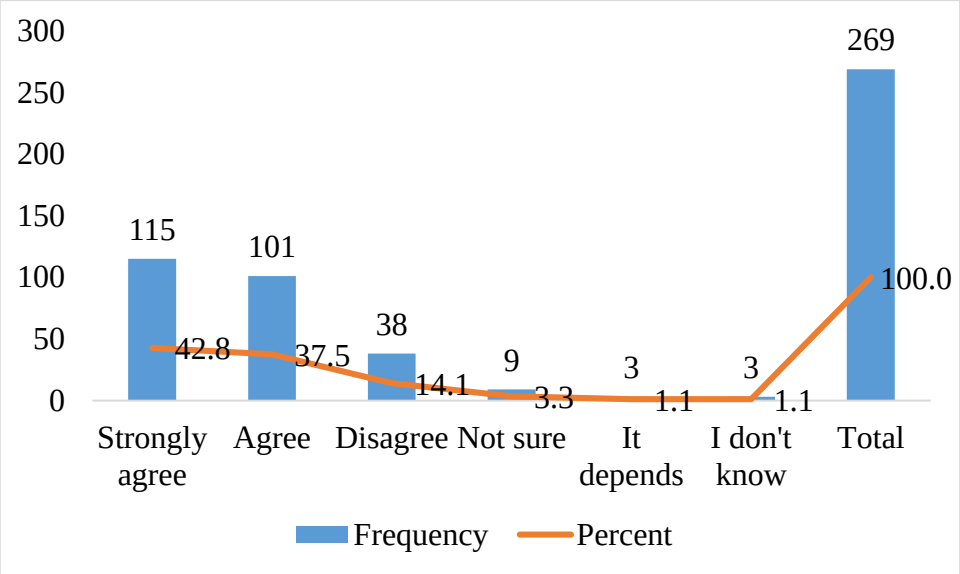


Figure 6: Respondents' views on whether diabetes management facilities were unequally distributed

The majority of the respondents, 115 (42.8%), strongly agreed that the health facilities were not equally distributed in all counties in Kenya. They also strongly agreed that unequal distribution of health care facilities would lead to a late diabetes diagnosis. 101 (37.5%) agreed that unequal distribution of health care facilities can lead to a late diabetes diagnosis. Table 4 below

highlights the respondents 'responses on easy access to hospital services in the county for earlier diagnosis.

	Frequency	Percent
Strongly agree	28	10.4
Agree	152	56.5
Disagree	85	31.6
Not sure	4	1.5
Total	**269**	**100.0**

Table 4: Whether it was easy to access county hospital services earlier diagnosis and care

The majority of the respondents, 152 (56.5%), said that access hospital services was easy in the counties for earlier diabetes diagnoses. However, 85 (31.6%) disagreed that it was easy for them to access hospital services in the counties for earlier diagnosis. A respondent said, *"I was told I had typhoid, but when I came to St. Mary's Mission Hospitals, I was diagnosed with diabetes, and the sugar levels were very high. Therefore, I was admitted."* Figure 7 below presents the respondents' source of income by healthcare responsiveness for diabetes management in Kenya and patients' quality of care.

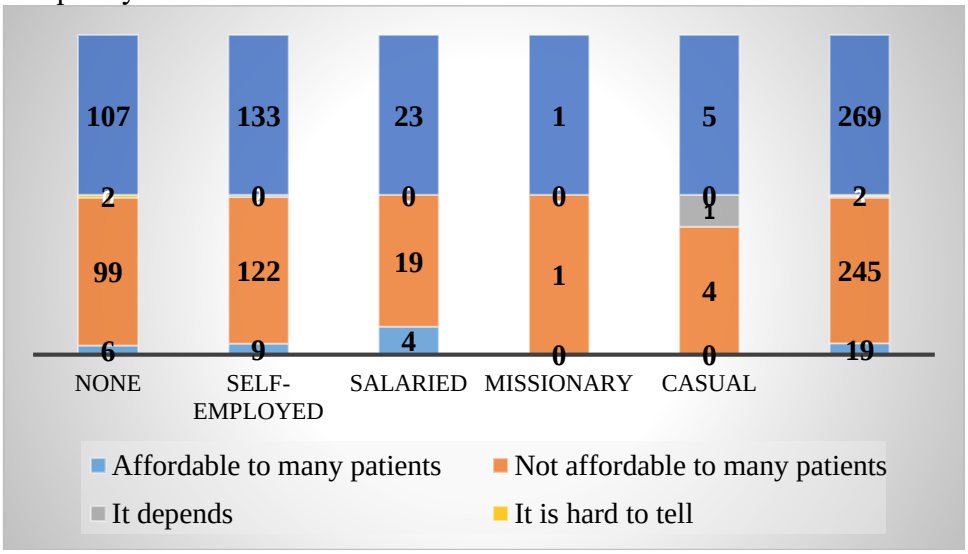


Figure 7: Respondents' source of income by healthcare responsiveness for diabetes management in Kenya and patients' quality of care

Despite their source of income, the majority of the respondents (245, 91.08% n=269) said that the health care services in Kenya for diabetes management are not affordable to many patients. (19) out of (23) respondents who had monthly salaries said that the health care services for diabetes management in Kenya are not affordable to many patients. The findings indicate that the health care system in Kenya does not offer an affordable quality of care to diabetes patients. Table 5 below presents the respondent's perceptions of the frequency with which hospital caregivers provided health education interactions with patients on how to manage diabetes.

	Frequency	Percent
Once a Month	65	24.2
Once a Year	9	3.3
More than once a year	33	12.3
N/A	104	38.7
A new patient in St. Mary's Hospital	2	.7
Newly diagnosed	10	3.7
More than once a Month	3	1.1
Patient's request	1	.4
Occasionally	38	14.1
Not sure	1	.4
It depends	1	.4
Only twice	1	.4
Thrice	1	.4
Total	**269**	**100.0**

Table 5: The frequency of education on effective diabetes management

The majority of the respondents, 104 (38.7%), said there is no frequency on which hospital caregivers educate the patients on how to manage diabetes because they have not received education from the hospital caregivers on how to manage diabetes, or some were not sure whether the hospital care givers effectively educate the patients on how to manage diabetes. However, 65 (24.2%) said that the hospital caregivers effectively educate the patients on managing diabetes every month. The findings imply that the hospital caregivers do not effectively educate the patients on diabetes management. This gap in the health care system needs to be addressed by the concerned authorities. Figure 8 below presents the respondents' report about the frequency of health education on diabetes management in their local communities.

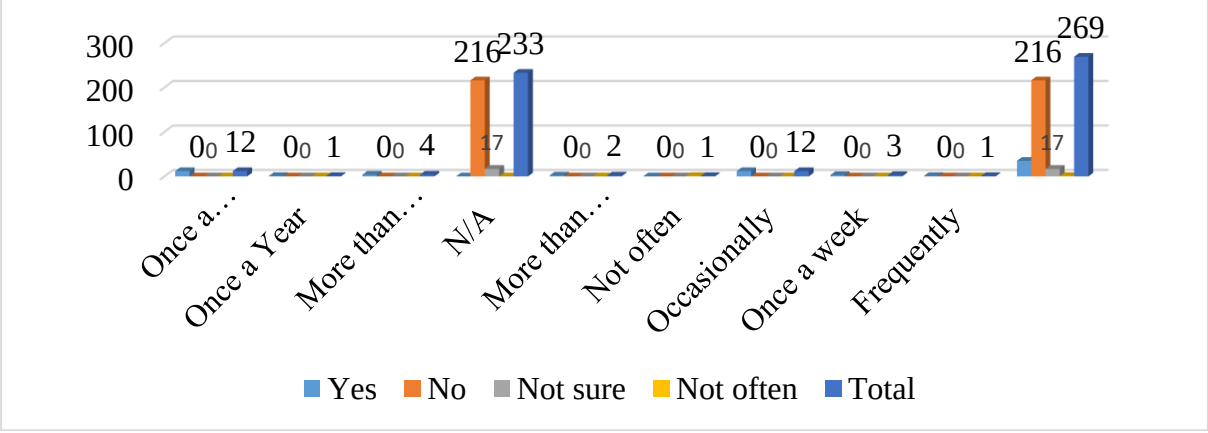


Figure 8: Frequency of the health education on diabetes in local communities

The findings indicate a gap in the health care responsiveness where the health care workers do not adequately educate people in the community about diabetes management. The majority of the respondents (216, 80.30% n=269) said no health education services for diabetes management in their community. Some respondents said, *"many people are dying of diabetes*

in the community without knowing they have it." This is a threat to the economic development of families and the entire nation. Table 6 below highlights the respondents' report on awareness of screening services to monitor diabetes in their communities and the frequency of the screening services.

	Once a Month	Once a Year	More than once a Year	N/A	Occasionally	Not often	Every week	Frequently	Total
Yes	8	2	3	0	14	0	3	1	31
No	0	0	0	219	0	0	0	0	219
Not sure	0	0	0	18	0	0	0	0	18
Not often	0	0	0	0	0	1	0	0	1
Total	**8**	**2**	**3**	**237**	**14**	**1**	**3**	**1**	**269**

The majority of the respondents (219, 81.41% n=269) said no screening services to monitor diabetes management in their community. However, (31, 11.52%) of the respondents said there are screening services to monitor diabetes management, and (14, 5.20%) of them said the screening services are done occasionally. The findings indicate that the health care system in Kenya does not adequately conduct screening for diabetes. Hence, most people in the community are diagnosed with diabetes when they already have complications.

On whether unequal distribution of health care facilities can lead to late diabetes diagnosis in counties, The majority of the respondents (115, 42.75%) across the counties strongly agreed that unequal distribution of health care facilities could lead to late diabetes diagnosis, which some of them had already experienced. The respondents were residents in different counties of Kenya as shown in table 1. Kiambu county recorded the highest with (15, 5.58%) respondents, followed by Makueni and Murang'a counties had the highest number of study participants, with (13, 4.83%) respondents each. (101, 37.55%) respondents agreed that unequal distribution of healthcare facilities can lead to late diabetes diagnosis, which some had also experienced. These respondents also varied across different counties, with Murang'a county and Kiambu county recorded the highest with (15, 5.58%) respondents each. The respondents from other countries resided in the counties indicated in the brackets on the table above. The respondents have to travel from their different counties or countries to seek treatment at St. Mary's Mission Hospital, Lang'ata, Nairobi. This is due to the lack of proper medication and diagnostic tests for diabetes management in various counties or countries and the high cost of medication in various hospitals. In contrast, there are well-equipped hospitals within Nairobi county like St. Mary's Mission Hospital, Lang'ata. The data above factors to the priority about inequality in health care services, which in line with UNICEF (2018), is proof for structural violence. This is known as patterns of variations inside huge-scale social structures that encompass differences of power, wealth, privilege, schooling, and health that is probably unjust and unequal. This form of violence takes location in society if institutions and policies are designed in a way that creates boundaries or inequitable access goods and services for some peolpe but not others (UNICEF, 2018:2). This shows a gap in the health care responsiveness to the management of diabetes in the counties.

On the access to Diabetes management and patient care services in the Counties, The majority of the respondents (152, 56.51% n=269) across all counties in the study agreed that it was easy for them to access the hospital services for earlier diabetes diagnoses. However, this 56.51% of respondents varied across different counties, with Murang'a county and Kiambu county recording the highest with (20, 7.43%) respondents each. (85, 31.60%) respondents disagreed that it was easy for them to access the hospital services for earlier diabetes diagnoses, of which some of them were diagnosed late. Of the (85, 31.60%) respondents, Murang'a county and Kajiado county recorded the highest number with (12, 4.46%) respondents each. The respondents from other countries resided in the counties. Though a majority of the respondents across various counties said that it was easier for them to access health care services for earlier diabetes diagnoses, some patients noted that they were misdiagnosed. They were initially told they suffered from other diseases like Typhoid until they came to the current study hospital (St. Mary's Mission Hospital) and were admitted. Patients travel from different Counties across Kenya to go for services at St. Mary's Mission Hospital. This indicates a gap in the health care providers in the Counties, which needs to be improved as these patients spend a lot of money on transport.

The respondents reported no diabetes medication and diagnostic machines in some county government hospitals and the quality of care for diabetes management. They had to seek treatment in private or mission hospitals like St. Mary's Mission Hospital in Nairobi and other counties. The respondents also said that it is easier to diagnose diabetes early in some hospitals within their counties than others within the same county. This implies that many people in the local communities of the Kenyan health system may be living with undiagnosed diabetes due to either lack of proper facilities or inaccessibility of the health facilities. In some Government hospitals, patients are not tested to see the sugar levels; they are just given medicines. In other Government hospitals, the patients are told to buy medicines elsewhere only to realize that those patients purchase the medicines from the same hospital. This makes the patients feel very bad. Some respondents reported that they developed complications with eyesight, which made their need to go to the hospital urgent. They said they were diagnosed with diabetes when it was rather late.

Summary

Implications of health care system responsiveness on diabetes management

The findings indicated the unequal distribution of health care facilities for diabetes management across the Counties in Kenya. This leads to a late diabetes diagnosis. The respondents reported that the health care system in Kenya does not offer an affordable quality of care to diabetes patients. This makes some patients skip days or weeks without medication. This places them at risk of developing diabetes complications. According to the findings, there are no screening services for diabetes in the communities. Hence, many people are dying in the community without knowing they have diabetes. The findings also indicated a gap in health education across the Counties. Thus, many people can stay for many years without knowing that they have diabetes. Some people come to know when they have already developed complications. This implies enormous expenses on the patients and their families. From the findings, the majority of the people in the community do not understand what diabetes is all about. This lack of understanding contributes to stigma from the community members to the patients. This prevents some patients from participating in social events. Some respondents reported having been misdiagnosed in some hospitals, which implied more expenses for hospitalization to stabilize their sugar levels. The findings indicated that the health education given in the hospitals is based on the diet at a cost to the nutritionist, excluding other crucial education on the diagnostic tests

and prevention measures that are of vital importance to proper diabetes management. Due to the cost requirements for education on a diet, many patients cannot afford it, and therefore, they do not know what to eat as diabetes patients. These patients eat whatever food they get hence risking their health. The section below presents insights on how diabetes care services to diabetes patients should be improved.

Improvement of care services to diabetes patients

The findings indicated that healthcare services to diabetes patients should be improved by providing free, available or affordable medication. Some respondents reported that the Health Care Workers should provide health education and screening services in the communities to create awareness of diabetes and its management. Other respondents said that the government should embark on training and capacity building of the health workers and ensuring that they are well paid so that they may be able to offer complete services to diabetes patients. The respondents also reported that the cost for NHIF should be reduced from Kshs. 500 per Month to around Kshs. 200 or Kshs. 300 per month so that all patients can be able to pay. NHIF should also cater to diabetes outpatient services such as medication and diagnostic tests since diabetes is costly and lifetime. The findings also indicated that the care services could be improved through building hospitals for diabetes care, removing taxation for diabetes medication, more research on diabetes management, converting the diabetes medicines into capsules that are easier to swallow, having projects to subsidize the cost of diabetes medication, providing financial support and food to the diabetes patients, a university with a hospital facility for diabetes care, bringing hospital facilities closer to the people in the community, and provision of water so that people could farm the right food for diabetes patients.

Conclusion

Diabetes is a collective issue that cuts across and affects the patients and their family members and the health structures. There is inequality in the health care services for diabetes management in Kenya which contributes to a late diabetes diagnosis. Besides, the management of diabetes is costly, and many patients cannot afford it. Therefore, the government should consider subsidizing the cost for diabetes medication or providing free medication and nutrition supplements in hospitals for patients who cannot afford the required diabetic diet. This would enhance the social well-being of the patients and their families.

Study Recommendations

The hospitals should form support groups or devise other forums for patients' education and encouragement on diabetes management. They should also look into the possibilities of having diabetes services in one building. This would ensure rapid diagnostic tests and treatment for diabetes patients. The hospitals should look into possibilities of reducing or subsidizing the cost of medication and diagnostic tests so that the patients can afford them. This would help the patient stop skipping clinic days which is detrimental to their health. The health care workers to move from offices and go to the community to educate and screen people for earlier diabetes diagnoses. The hospitals should ensure necessary tests are done for patients before administering medicines to them to avoid complications related to diabetes. The health caregivers should use forums like worship places to create awareness and screen diabetes for earlier diagnosis. The study recommends the government ensure that all hospitals have quality medicines for diabetes patients at affordable costs. The government should also discuss offering free diabetes medicines since this is a costly lifetime disease. The majority of the patients cannot afford its management, including the daily medication. The management is expensive as every

coin in the family goes to diabetes management. The government should have projects and social funds for diabetes patients since the majority are now suffering from the disease. The government should also incorporate lessons on health care issues like diabetes in the education curriculum. This would enhance awareness and early diagnosis.

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