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**DELIVERY OF HOME-BASED CARE IN THE CONTEXT OF UNIVERSAL
HEALTHCARE COVERAGE IN KENYA**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION IN HEALTHCARE MANAGEMENT OF STRATHMORE
UNIVERSITY, KENYA**



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MBA-HCM/79068/14

July 2022

DECLARATION

I declare that this work has not been previously submitted and approved for an award of any degree by this or any other university. To the best of my knowledge and belief, this research project contains no materials previously published or written by another person except where due reference is made in the research project itself:

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Signature: 

Date: 21st July 2022

Approval

This thesis has been submitted with my approval as the University Supervisor.



Signature:

Date: 21st July 2022

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ABSTRACT

Communicable and non-communicable diseases are a leading cause of morbidity and mortality and are contributing to over 60% of global mortality, out of which 80% occur in middle and low-income countries. The objectives of this study were: to examine the influence of legal factors, socio-economic factors, and demographic factors on home-based care delivery in Kenya. The study highlights the gaps in policy and hopefully guides future policy development to identify and establish a systematic approach to dealing with the gaps that relate to home-based care delivery in Kenya. A descriptive research design was utilized to collect data from healthcare workers working in health facilities registered to offer home-based care. The study population was 68 healthcare workers drawn from the nine home care facilities operating within Nairobi County and applied purposive sampling to collect data from healthcare workers. The study employed a semi-structured questionnaire in the data collection process and extensively utilized Google forms and physical questionnaires in the data collection. Data analysis was done using descriptive and inferential analysis. Based on the findings, the study concluded that legal, socioeconomic, and demographic factors had a positive and significant relationship with home-based care delivery in Nairobi. It also indicated that the current ethical concerns, guiding policies, laws, workers' rights, and privileges among healthcare workers do not contribute to home-based care delivery. The results also indicated that relying on the home environment, client affordability, occupants at home, hazards, and availability of home resources positively improved home-based care delivery. However, healthcare workers' gender and practice experience did not influence home-based care delivery. The results showed that healthcare workers with a bachelor's degree positively and significantly contributed to the delivery of home-based care. It was thus concluded that healthcare workers should develop cost-effective home-care management that can be utilized in the long-term by patients through practical guidelines

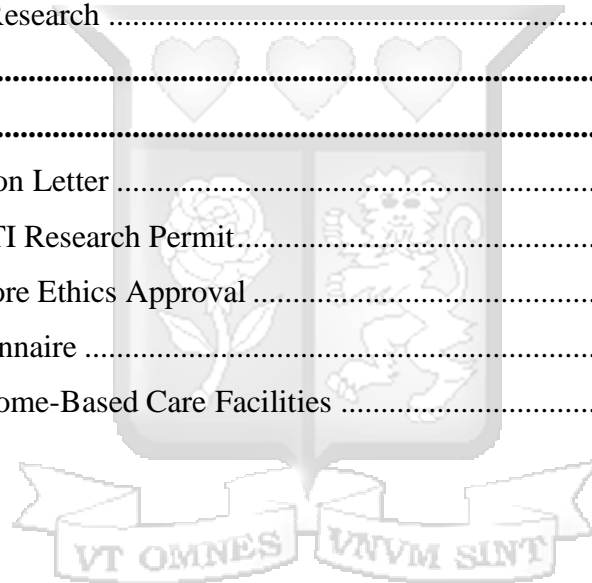


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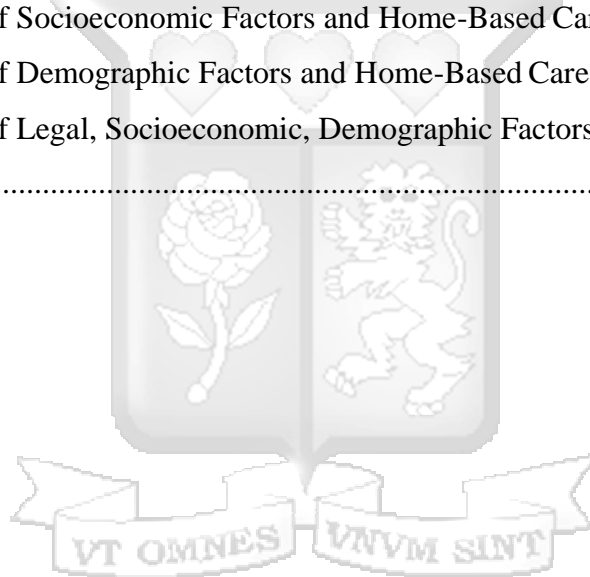
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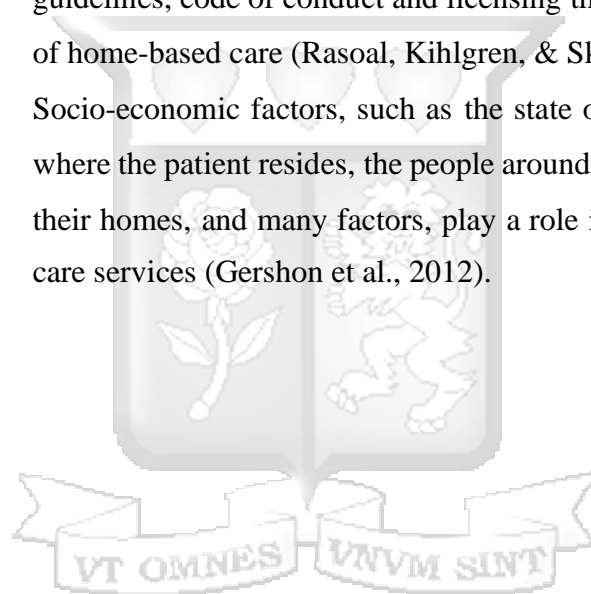


ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CME	Continuous Medical Education
DHIS	District Health Information Software
EM	Essential Medicines
HCP	Health Care Professional
HIV	Human Immunodeficiency Virus
HMT	Health Management Team
HSSP	Health Sector Strategic Plan
LMICs	Lower Middle-Income Countries
KHIS	Kenya Health Information System
KAFP	Kenya Association of Family Physicians
KPA	Kenya Pediatric association
KEHPCA	Kenya Hospices and Palliative Care Association
MOH	Ministry of Health
NACC	National AIDS Control Council
NASCOP	National AIDS and STI Control Program
NCCP	National Cancer Control Program
NCD	Non-Communicable Disease
NCI	National Cancer Institute
NHIF	National Hospital Insurance Fund
NCK	Nursing Council of Kenya
PC	Palliative Care
PHC	Primary Health care
PLWPCNs	Persons Living with Palliative Care Needs
PPB	Pharmacy and Poisons Board
SDG	Sustainable Development Goals
UHC	Universal Health Coverage
WHO	World Health Organization

DEFINITION OF TERMS

Caregiver	Can be a family member or paid helper who regularly looks after a child or a sick, elderly, or disabled person
Demographic factors	Provision of home-based care also depends on patient and caregiver demographics such as gender, literacy levels, their conditions (Danielsen, Sand, Rosland, & Førland, 2018).
Home-based care	According to Ellenbecker, Samia, Cushman, and Alster (2008), home-based care is a system of care provided by skilled practitioners to patients in their homes under the direction of a physician.
Legal factors	This refers to the various legal aspects such as regulations, ethical guidelines, code of conduct and licensing that support the provision of home-based care (Rasoal, Kihlgren, & Skovdahl, 2018).
Socioeconomic factors	Socio-economic factors, such as the state of the home environment where the patient resides, the people around them, the accessibility to their homes, and many factors, play a role in providing home-based care services (Gershon et al., 2012).

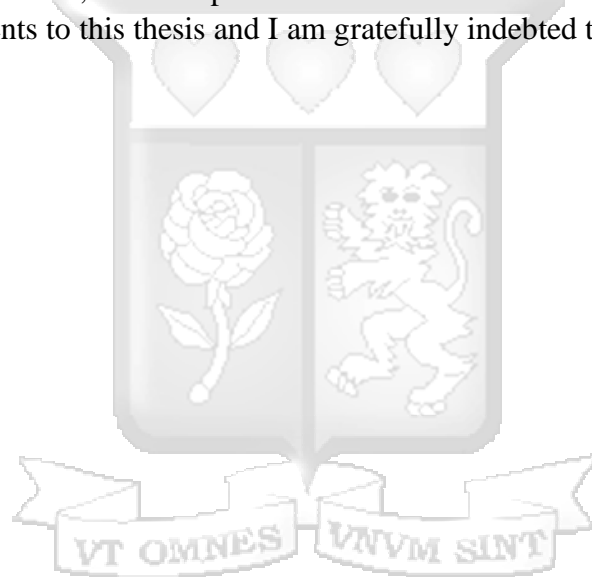


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CHAPTER ONE

1.0 Introduction

This chapter focused on the introduction and background of the study. It covered the background of the study where factors influencing home-based care were discussed. The chapter also presented the objectives and research questions, the problem statement, the scope of the study, and finally, the significance of the study.

1.2 Background to the Study

The liability placed on families resulting from the long hospitalization of their loved ones has made it difficult for them to bear both the economic and psychological effects of the burden of disease. Some of the conditions that probably lead to lengthy hospital stays include fractures, and immobility due to disease leaves the patient under the mercy of nurses in the hospital whose duties are to maintain their basic care such as cleaning, turning, and toiletry services of a patient instead of key nursing care required in hospital. With this in mind, such patients if critically analyzed would easily be managed at home with proper professional follow-up and thus reduce the burden of cost to the family. (Chong, De Castro, Teo, & Tan, 2017).

The recent pandemic (covid-19) has revealed the important role of home-based care and why this should be encouraged (Higginson, Brooks, & Barclay, 2021; Xinhua, 2020). According to Ellenbecker, Samia, Cushman, and Alster (2008), home-based care is a system of care provided by skilled practitioners to patients in their homes under the direction of a physician. Services under home-based care include nursing care; physical, occupational, and speech-language therapy; medical, paramedical services, and social services (Lin, Chin, Wang, & Tsui, 2016). Home-based care is instrumental to attaining Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs).

In Kenya, the uptake of services requiring home-based care has been increasing by the day as individuals get empowered. Technology has advanced in recent times to a point where there is adequate internet infrastructure enabling people to work from home. Thus, one can look after a loved one who is ailing from long-term diseases or immobility while at home, thus reducing the need to take them to care homes. In a miscellaneous application number E010 of 2020 under the constitution and human rights division and a matter of articles 2(1),3(1),10,19,20,21,22,23,27,28,43(1)(a) between Kenya health sector referral strategy, the Kenya health sector referral implementation guideline 2014 and a local hospital pointed a clear

picture in which the patient's next of kin required his patient to be placed under home-based care following a request by the next of kin due to accumulation of hospital bills and thus holding the patient in their custody due to accumulation of bills.

1.2.1 Global Perspectives on Home-Based Care

Home-based care is crucial to the attainment of both Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs), especially Goal number three on healthy lives and well-being at all stages (WHO, 2015; 2017). Generally, UHC aims at providing secure access to adequate healthcare for all at an affordable price (Fantaye & Yaya, 2019). Universal Health Coverage has been on the health spectrum that is receiving reinvigorated attention at both global and national levels. On the other hand, Martindale et al. (2017) argued that caregivers are pivotal in the home-based care of lymphatic filariasis patients, and this is one important contributor to SDGs. Therefore, home-based care needs to be given important consideration due to its contribution to UHC and SDGs.

Notably, the highest financial burden in many households is associated with accessing and utilizing health services. In a study of a case taken to the Kenyan courts where a simple elective cesarean section operation of a pregnant mother led to complications that led to the lady been placed under a High Dependent Unit for one year and a half leading to cumulation of a total bill amounting to Ksh.25 Million. Due to the dependent nature of the care without necessary requiring medication, it prompted the spouse of the respondent to go to court as the next of kin, requesting for the wife to be taken home for home-based care owing to the huge hospital bill that had accumulated to levels that were unattainable for them to continue utilizing the services of the hospital. The applicant suggested that it would be more cost-effective for the patient to be placed under home-based care with the consultation of the facility as the services being rendered to the patient can be rendered by public health institutions at a more subsidized cost to the benefit of the patient and her family (WHO, 2015).

The World Health Organizations' global estimates indicate that over 150 million people's health expenditure in a year was catastrophic and ended up in abject poverty (World Health Organization & The World Bank, 2019). This is characterized by household out-of-pocket payments for health care consuming such a huge percentage of their actual and perceived incomes that it forces them to forego other goods and services, while an equivalent or more pervasive proportion of the

The population is pushed into poverty. Although UHC has been improving over the years, there remains disparity across countries with those most developed (such as Japan and Iceland) doing better than less developed ones, like Somalia and other African countries (Lozano, et al., 2020). UHC is important to patients who have to be attended to from home about home-based care. For example, according to Adithyan and Jose (2018), palliative care patients, whose care is recognized under UHC, need recognition and consideration in the Indian context. The authors argued that palliative care is a novel concept in India, and traditional cultural practices can be looked into to help in this regard, for example adopting a communal approach to home-based care of such patients. Home-based support and caregivers are also crucial in managing children affected by HIV/AIDS, which contributes to the attainment of SDGs. Even then, this can be highly gendered with more women taking up the role of caregivers (Brear, Shabangu, Hammarberg, Fisher, & Keleher, 2019).

The increasing demand for home-based care has prompted many countries to adopt it, especially developed nations. In Europe, home-based care is prevalent within the continent, even though challenges to its financing remain an issue (Genet et al., 2011). Similarly, and especially during the covid-19 pandemic, the quality of home-based care was in question, owing to the increasing number of cases and fewer qualified care workers specializing in home-based conditions (Higginson et al., 2021). In Singapore, patients receiving home-based care recovered much earlier, had a better quality of care, and spent much lesser than those receiving standard care (Chong, De Castro, Teo, & Tan, 2017).

In 2008, the WHO facilitated the primary health care revitalization agenda. The purpose was to strengthen African health systems to address communicable and non-communicable diseases. The study aimed to assess the position of civil society-led community home-based care programs, which serve the needs of patients with HIV, within this agenda. Thus, countries differ in the means to integrate and coordinate government and civil society agencies but the net result is expanded primary health care capacity. In the context of changing health care demands, Home-based care programs are a vital mechanism for delivering primary health and social welfare services. (• Aantjes, Integration of community home-based care programs within national primary health care revitalization strategies in Ethiopia, Malawi, South Africa, and Zambia; a comparative assessment, 2014).

With demographic trends and spending concerns as a backdrop, the Medicare program began to emphasize the “Triple Aim” achievement in 2009. A framework initially conceived by the Institute for Healthcare Improvement but now almost universally accepted in health care policy and delivery, the Triple Aim has focused efforts to innovate in the Medicare program and has propelled considerable change. The Triple Aim declares that to improve the U.S. health care system, it is vital to pursue three goals simultaneously: Meroving the patient experience of care, improving the population's health, and reducing the per capita cost of health care. The Triple Aim has been used by policymakers and other leaders in healthcare delivery to focus their goals on reforming the healthcare delivery system.

1.2.2 Factors Influencing Home-Based Care Delivery

Many factors can influence the provision of home-based care; these include legal, socio-economic, demographic, and others. Such factors must be considered, including failure to affect the patients’ recovery. According to Craven, Byrne, Sims-Gould, and Martin-Matthews (2012), the home environment is very important for home-based care. This determines the quality of care given and the patients' recovery journey being attended to. Gershon et al. (2012) also observed that home-based care can be affected by hazards within the home environment such as fires, unsanitary conditions, etc., which suggests the need for training for those attending to patients at home. A caretaker is also an important individual where a patient requires someone to support them at home, based on (Szanton, Leff, Wolff, Roberts, & Gitlin, 2016). Therefore, the home where a patient resides while receiving home-based care must be conducive and supportive of the patient’s recovery.

Concerning Legal factors, the health act, 2019 in its content has not touched on anything regarding patients’ care at home and if it recognizes home-based care. The Constitution of Kenya 2010 describes clearly the importance of universal health coverage but focuses more on treatment rather than the care given beyond the hospital environment. Thus, for universal health coverage to be attainable, the provision of an integrated health system must incorporate and encompasses a multi-disciplinary, multi-sectoral, and inter-governmental approach to the implementation of a framework with each level taking responsibility to ensure that hospitals are decongested and care is integrated deep into the community with community nursing, public health officers and caregivers all recognized for their role they play to ensure that every citizen is catered for wherever they are in the country, without necessarily suffering the burden of trying to

seek health care in institutionalized facilities where such cares require basic management. In most cases, home-based care is considered core for palliative care in which hospices are institutions that provide care to persons living with palliative care needs and are placed in institutions or under home care under the care and supervision of qualified health providers or a public health officer. In many countries, the provision of home-based care is defined within the limits of the bodies and laws governing healthcare.

According to Tønnessen, Nortvedt, and Førde (2011), Norwegians have a legal right to home-based care services, implying that the state largely funds such services. Further, physicians, nurses, and other official caregivers in Norway have to attend to home-based patients as stipulated by their respective health facilities. However, the situation may not be the same in other countries, especially in third-world countries that still struggle with many health-related concerns such as shortage of healthcare workers and inadequate infrastructural facilities. In France, Vincent and Amalberti (2016) observed that all patients have to be given medication by professionals. If one is not qualified, one cannot administer any drug to a home-based patient. This also includes the patients themselves, who cannot be trusted to administer their drugs. Legal factors thus influence the provision of home-based care globally.

In the current guideline under the draft on palliative care, priority areas of action have been mapped. The establishment and integration of palliative care services in the health facilities at all levels of care were properly linked to community home-based care systems. The provision of home-based care also depends on patient and caregiver demographics such as gender, literacy levels, and conditions (Ellenbecker et al., 2008). Older adults, for example, may need more support at home than the young, and their environment will need greater attention. According to Suwa et al. (2020), older adults are on the increase in Japan, and since there are fewer caregivers, care robots are being used to assist the aged at home. On caregivers, Yang et al. (2019) argued that caregiver characteristics such as age and literacy levels affect home-based care, further observing that spouses of older adults have a 63% higher mortality rate than that similar spouses who are non-caregivers. The presence of enough qualified home care workers is also important and crucial to the success of home-based care, and this was evidenced in the covid-19 case (Higginson et al., 2021). Thus, the level of literacy can be matched up with the level of education of the current caregivers tasked with the job to care for and manage patients at home who require to stay at home for long periods. In the Kenyan context, such people are people with the lowest level of education

such as school dropouts or those who did not manage to progress career-wise and thus had the only option to carry out casual labor jobs such as housekeeping. In this case, when it comes to managing patients and their prescription follow-up is more dependable, this becomes a challenge as there are instances where prescription adherence is not well followed or more often given wrongly due to lack of knowledge or intellect on the level of the caregiver. Thus, in the long run, the patient is mismanaged, and eventually, their condition deteriorates due to factors of literacy by the caregiver.

1.2.3 Home-Based Care in Kenya

Kenya is one of the countries that has resorted to embracing home-based care, especially during the pandemic season. Covid-19 patients have been forced to self-isolation due to the increasing number of patients infected with the virus, and the need to de-congest the hospitals owing to the over-stretched health facilities (Xinhua, 2020).

There has been the need to protect the health care workers who are few and at risk of contracting the virus because they are overwhelmed by the current crisis with more patients requiring critical care services and resources such as oxygen and ventilators. The increase in the number of Covid patients thus has prompted the need to relook at the way treatment will be administered through categorizing and segregating those who have mild to severe disease presentation. Those who are mild and able to get management from home are thus encouraged to follow the home-based care protocols and guidelines laid out by the Ministry of health. Before that, however, home-based care existed and addressed the needs of many patients such as palliative, accident, old-aged, and those disabled, among others. Home-based care has largely been utilized by HIV/AIDS patients and the elderly. Therefore, demographic factors and legal factors played a key role in home-based care.

Today, many facilities offer home-based care services to patients in Kenya: while some are public, many of these facilities are privately run. However, based on the current guidelines on palliative care and the increase in numbers of non-communicable diseases such as Cancer, Diabetes, and Heart conditions among others have led to the need for many patients requiring home-based care. Studies have also examined the home-based care and practices of elderly people in Kenya. In their review, Ngaruiya, Orwa, and Waiganjo (2017) reviewed technology used in home-based support for the elderly. They concluded that inexpensive technology can be used, for example, in monitoring the health of the elderly at home. The increasing demand for care and increasing in-patient costs in health facilities has fueled the need for people to look into home-based care. Using

Kenya household health expenditure and utilization (KHHEUS) data, Njagi, Arsenijevic, and Groot (2020), realized that the reason for unmet needs in in-patient and outpatient services was cost-related. The high cost of accessing these services hindered many patients from benefiting from services, implying that others would resort to more affordable home-based care. To be legible for Insurance reimbursement, the physician in Kenya must deem home healthcare services medically necessary. In addition, the care must be provided on an intermittent and non-continuous basis (Keitany, Mabonga, & Kirigo, 2020). The cost of this care and the huge disparity in the provision of health insurance coverage is also a challenge, thus bringing in the element of socio-economic factors in home-based.

1.3 Statement of the Problem

Long-term care involves a variety of services designed to meet a person's health or personal care needs during a short or long period. Different caregivers provide care in different places depending on a person's needs (de Carvalho, et al., 2017). In most cases, unpaid family members and friends provide long-term care at home. It can also be given in a facility such as a nursing home or the community, for example, in an adult day care center (World Health Organization, 2017). The most common type of long-term care involves help with everyday activities also known as activities of daily living, this activity includes bathing, dressing, grooming, using the toilet, eating, and moving around such as getting out of bed and on the chair (Muthuri, Senkubuge, & Hongoro, 2020). More often, people who need long-term care are immobile and require high dependence, and often have serious, ongoing health conditions or disabilities. Such cases include heart attack or stroke, old age, and highly infectious diseases such as Covid 19. An increasing number of new and established organizations are launching and scaling models to move primary, acute, and palliative care to the home (Kraef, et al., 2020).

Unfortunately, not much attention has been paid to home-based care in Kenya, especially the factors that might influence its provision. Further, even the focus on home-based care has been provided by non-specialized individuals such as relatives. In contrast, such care should include services given by skilled and specialized individuals to patients such as accident victims, the elderly, palliative ones, and those with disabilities (Lin et al., 2016).

Home-based care is the one crucial ingredient in the attainment of both Universal Health Coverage and Sustainable Development Goals (WHO, 2017). When executed within the laid-down

framework, home-based care has the potential to meet the needs of patients at home, whose mobility, cost-implications, or other related factors may hinder them from regular visits to health facilities. According to Dorsey et al. (2016), home-based care for patients (such as those suffering from Parkinson's Disease) is the best option owing to age, mobility, and a host of other hindering factors. As demonstrated during the covid-19 pandemic, home-based care can be the best solution even for a country like Kenya struggling with health infrastructure (Xinhua, 2020). Therefore, it is important to investigate the factors that influence home-based care in Kenya as an important component of Universal Health Coverage and Sustainable Development Goals in the country. More specifically, it is crucial to understand how legal requirements, socio-economic components, and demographics of both patients and caregivers might influence home-based care services in Kenya.

1.4 Research Objectives

1.4.1 Main objective

The main objective of this study is to investigate the factors that influence home-based care delivery in Kenya.

1.4.2 Specific Objectives

- i. To examine the effect of legal factors on home-based care delivery in Kenya.
- ii. To establish the effect of socio-economic factors on the delivery of home-based care in Kenya
- iii. To establish the effect of demographic factors on the delivery of home-based care in Kenya

1.5 Research questions

- i. What is the effect of legal factors on the delivery of home-based care in Kenya?
- ii. What is the effect of socio-economic factors on the delivery of home-based care in Kenya?
- iii. What is the effect of demographic factors on the delivery of home-based care in Kenya?

1.6 Scope of the study

The scope of this study was in Nairobi County and focused mainly on facilities offering home-based care. The focus was on the registered healthcare workers to provide home-based care. The study specifically focused on the three factors influencing home-based care: legal, socio-economic and

demographic. The study relied on two theories; The Neal theory of home health nursing and Nightingale's environmental theory.

1.7 Significance of the study

Various stakeholders are likely to benefit from the findings of this study. The Ministry of Health is likely to benefit from the findings of this study as they will be guided on policy development, laws, and regulations, putting in place strategies and guidelines that may contribute to effective and sustainable home-based care delivery that will advance Universal Health Care (UHC) and Sustainable Development Goals (SDGs) following the economic, legal and demographic factors.

Based on the demographic factors identified, the study may also be useful to scholars and academicians as a tool of knowledge for those who may wish to use the findings of this study for further research in the development of curriculums that focus on home-based care delivery.

Legislation gaps noted from this study based on legal factors would help determine what legal instruments would be used to enforce proper home-based care management and protection of both the patient and health professional rights and privileges.

The study will also shed light on the gaps available within the health care system and add value to various health sectors on were to strengthen the systems required for effective and comprehensive health coverage such as financing, healthcare management, and social and public health.

Findings from this study will also be used as a reference and to prompt interest among researchers to further research on home-based care. The policy-makers would benefit from the findings of this study as they will understand the influence of legal, socio-economic, and demographic factors in the provision of home-based healthcare in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focused on content related to the theories and the review of the literature. Specifically, this chapter covers the study's theoretical foundation where Neal's theory of home health nursing and Nightingale's environmental theory are covered. The literature on the study objectives was then reviewed before a summary of the literature is given, and the conceptual framework.

2.2 Theoretical foundation

Two theories are proposed for this study: The Neal theory of home health nursing and Nightingale's environmental theory. As the next sections show, both theories addressed the provision of healthcare in a way that enhances patient recovery. While Neal's theory focused on the healthcare worker's qualifications and expertise, Nightingale's environmental theory looked at the provision of a conducive environment which enhances patient recovery. In home-based care, the qualifications, experiences, and expertise of the health care worker attending to home-based patients and the kind of environment created are crucial to the quick recovery and restoration of patients. The two theories were therefore relevant to the current study.

2.2.1 The Neal Theory of Home Health Nursing Practice

Leslie Jean Neal advanced the Neal theory of home health care nursing in 1998 (Neal-Boylan, 1998). The theory focuses on health care workers providing support and attending to home-based patients, and argues that such a worker goes through three stages as they relate with their patients: dependence, moderate dependence, and adaptation. Over time, nurses develop confidence and experience and these combined with an ability to make adaptations account for movement through the stages. Stage one is characterized by dependence on others for assistance in learning and dealing with the logistical and clinical questions presented in-home care. Nurses move to stage two, moderate dependence when there is a notable increase in comfort with these issues and the need to ask questions of others has decreased. Stage three, autonomy is achieved when nurses make clinical and logistical decisions independently, which are validated by others to be experts. Nurses periodically and temporarily move back from stage three to stage two when autonomy is restricted by reimbursement, patients, physicians, or other factors. Thus, nurses must adapt

to several situations to attain autonomy in-home care delivery. Such as logistics and clinical components; each patient's home, each patient's resources, needs, and learning capacity; and change in general. They adapt procedures, equipment, themselves, and their resources, both tangible and intangible to provide patient care. Thus, nurses must be creative, innovative, and flexible to be adaptable. The model is similar to Benner's ((1984) theory of novice to expert, but with the addition of the key component, adaptation. These stages are fluid (not fixed) as the home care workers can go back and forth depending on the relationships they have with their clients and as they adapt, gain experience, and confidence in their work (Mailey, 2002; Neal-Boylan, 1998).

Some studies have applied the Neal theory of home health nursing practice. Sherman, Gershon, Samar, Pearson, Canton, and Damsky (2008) used the Neal theory of home health nursing practice to survey the job satisfaction and retention of 823 Home Health Care Aides (HHA) in New York City. He realized that contextual factors (home, environment, etc.) and relational ones such as threats verbal, and physical abuse affected their job satisfaction and retention. A recent study by Unger (2021) used Neal's theory to examine resilience among home care nurses where the nurses expressed a desire to use the given strategies to enhance their resilience. Thus, demographic factors of healthcare professionals are the target group in this study.

The theory is useful in understanding the success of home-based care delivery, where home care workers play a very crucial role, thus applicable to responding to all three study objectives. For example, for home care workers to be successful in their work, legal, socio-economic and demographic factors play an instrumental role. Home care workers who have less knowledge of a given ailment affecting their patient are likely to be dependent on other workers and systems and may not be confident in their work (Polacsek et al., 2020). Studies have also shown that the changing legal factors and contextual environments in that home-based health care workers operate affect their effectiveness and success (Ellenbecker, Boylan, & Samia, 2006).

2.2.2 Nightingale's Environmental Theory

Nightingale's environmental theory was advanced by Florence Nightingale, a nurse (Hegge, 2013). This theory advocates for the creation of an environment that supports the quick recovery of patients. Nightingale advocated for a physical environment that aided patient recovery, for

example, one that was pure, clean, with fresh air, well-drained, etc. According to Gilbert (2020), Nightingale's environmental theory has had a great influence on the medical field, especially in preventing and treating infectious diseases. Nightingale believed in the role of sanitary conditions as part of the recovery process, and this was evident in the Crimean war victims. A healthy house, according to Nightingale had to have five key items: pure water, pure air, efficient drainage, cleanliness, and light (Gilbert, 2020).

Several studies have applied Nightingale's environmental theory. In their qualitative study, Roque and Carraro (2015) sought the experience of mothers of high-risk puerperal women about the hospital environment they were housed in and concluded that this environment was central to their wholeness. Similarly, (Hussian & Karim, 2020) examined selected cases and concluded that the patient's environments were instrumental to their recovery process based on Nightingale's theory. About this study, the kind of environment (physical, legal, etc.) that a patient is exposed to should support the recovery of home-based patients. The laws, policies, and regulations governing home-based care, both for patients and their caregivers should not hinder patients' quick recovery. Similarly, the physical environment, an important factor in home-based care (Lang et al., 2014), should be seriously considered when care delivery is discussed. Factors such as hygiene and physical location are important as far as the home-based care environment is concerned. This theory was therefore applied to all the study objectives. Further, these theories were revisited to see how best they fit in well with the study.

2.3 Empirical Review

2.3.1 Legal Factors and Home-Based Care

Several legal factors contribute to the success or failure in the provision of home-based care delivery. These factors are context-specific, suggesting that they will not be the same from one country to another. For example, while in some countries the provision of home-based care delivery is indicated in the medical and sometimes country laws, in other countries this is not the case (Tønnessen et al., 2011; Vincent & Amalberti, 2016). This implies that home-based care delivery will to a large extent be affected by diverse legal factors.

A study that focused on 31 dementia care workers in Norway demonstrated how the nation's professional and regulatory codes of ethics affected their work on an everyday experience in

relation to cooperation and coordination between the care workers, care recipient, and those family members providing the care with an indication that these workers were sometimes in a dilemma between meeting the needs of their care receiver, while carefully trying to follow the laid-down regulations governing home-based care for dementia patients. Thus, the administration of drugs and basic hygiene practices of the patients had to be carried out within the laid-down rules (for example obtaining informed consent from the patients or their next of kin). For instant, the theme of physical restraint, preventive measures against falling, and other physical risks were considered. Thus, force and restraint were tools that were avoided in the care work profession following new legislation and code of ethics. (Lundberg K., 2017). This study showed that legal factors do affect how home-based care delivery is administered.

Rasoal, Kihlgren, and Skovdahl (2018) in a similar (ethnographic) study with eight nurses and four nurse assistants revealed that several legal and contextual factors affected the effective provision of home-based care delivery. Ethical and confidential issues were legally challenging and could create conflict between the home-based care attendants, family members, and the patients, as observed:

Nurses and nursing assistants have asked patients if they can give out sensitive information concerning patients' health conditions to next-of-kin, and sometimes the patients declined. Personnel perceived such situations as ethically demanding. A conflict could develop between them and the next-of-kin if personnel respected the patients' wishes and did not provide any information to the next-of-kin. If personnel disclosed any information to the next-of-kin, they would conflict with the patient and the law and break the rule of confidentiality (p.5).

In Israel, the legal requirements for health care providers involved in home-based care have been found to affect the provision of such services. Ayalon and Baum (2010) in their study of 37 providers of home-based care, discovered that previously, such workers who were of foreign origin were taken advantage of in terms of remuneration. Change of laws and policies about the same had, however, granted them legal rights and ensured such workers were protected and could thus provide their services with ease. A related study in Israel among both foreign and local home care providers showed that their legal rights and privileges were being denied in the course of their work (Green & Ayalon, 2018). The study, a survey of 338 migrant home-based care providers, and 185 of their local counterparts established that as many as half of foreign workers were denied

their legally-mandated vacations and most did not get sick-off days. Their local counterparts suffered similar exploitations and challenges. The study concluded that though legally mandated to work as home-based workers, these workers' rights and privileges were abused, and suggested the need for active involvement of the host government for these violations to be mitigated.

In Kenya, one study found that legal challenges hindered the effective provision of home-based care delivery to patients. Rhee et al's. (2018) study focused on the development of palliative care in seven African countries and used semi-structured interviews with 16 palliative care experts. Findings from the study revealed that study participants from Kenya and other countries revealed that lack of legal protection was one of the reasons why they could not access some drugs (such as morphine) for their patients. This suggests that the success of home-based care delivery may be affected by the legal requirements within a country.

2.3.2 Socio-Economic Factors and Home-Based Care

Socio-economic factors, such as the state of the home environment where the patient resides, the people around them, and the accessibility to their homes, among many factors, play a role in providing home-based care services. Uneventful happenings like fires may also affect the provision of home-based care (Gershon et al., 2012), more so if the patient is alone, or without much help and support. The situation in Africa and Kenya to be specific, for example, the inaccessible roads, and long distances from patient homes, among others, are likely to make the provision of home-based care delivery a challenge.

A qualitative study in Canada among unpaid home-based care workers, their clients, and paid providers focused on these groups of people (Lang et al., 2014). Findings showed that some of the challenges related to home-based care delivery to older adults related to unhygienic environments and not conducive to accommodation. There were also concerns around equipment meant for use at home by patients (such as wheelchairs) whose initial design was for hospital environments, or those designed for outdoors but were now being used indoors. A similar study by King, Holliday, and Andrews (2018) revealed that home-based care delivery staff and patients had challenges with bathroom use, such as small and restrictive spaces and malfunctioning equipment. Therefore, the home environment can be challenging for patients and their caregivers in home-based care delivery.

The presence or absence of collaboration with key stakeholders can also affect the provision of home-based care. A study in Norway by Danielsen, Sand, Rosland, and Førland (2018) that used focus group discussions with 19 participants examined the factors that support or hinder effective home-based care. Results from the study showed that one of the key factors in establishing safety at home was close collaboration among care providers, patients, and their kin. In this way, they could discuss and agree on emerging issues and make suggestions on the best way to provide care. This collaboration was crucial from the first day, and as the patient progressed. Some studies have also focused on economic factors that contribute to the effective delivery of home-based care. For example, personal finance can aid or hinder the success of home-based care.

In their Australian study, Rahman, Efird, and Byles (2019) looked at old aged women and how finances affected their access to home-based services, among others. Study participants who had lower incomes were more likely to engage in home-based services. In contrast, a survey by Moholt, Friborg, Blix, and Henriksen (2020) in Northern Norway showed that individuals in urban areas made more use of home-based service delivery than their rural counterparts. This is possibly a financial decision owing to increased knowledge of home-based service delivery.

Based on (Bowman, 2019), the new prospects for alternative payment models that allow for sustainable interdisciplinary home-based care represent a promising opportunity for home-based care delivery in programs focused on palliative care.

2.3.3 Demographic Factors and Home-Based Care

Demographic factors affect in a great way the provision of home-based care delivery. Factors such as age, conditions, and land literacy levels, among others, contribute in a great way to the provision and success of home-based care (Yang et al., 2019). According to Mah, Stevens, Keefe, Rockwood, and Andrew (2021), most studies have focused on home-based care delivery to the aged population, suggesting an association between old age and home-based care. Other demographic factors such as gender, education levels, ethnicity, etc., have also been covered in literature, about home-based care delivery.

Moholt, Friborg, Blix, and Henriksen's (2020) study showed that the use of home-based services among dementia patients in Northern Ireland was related to several demographic factors. Similar to the study by Mah et al. (2021), age was positively associated with accessing home-based services and delivering such care. Further, individuals who lived alone used home-based services more than

those who lived in families. It was also evident from the study that individuals in full-time employment and those with higher levels of education used home-based care services more than those who either had lower education were or not employed. These findings support the argument that demographic factors affect the provision of home-based care delivery.

Some studies have also examined the contribution of literacy levels, both of the home-based care workers and those of the patients, to home-based care. In Australia, a mixed-method study by Palesy and Jakimowicz (2020) among 75 home care workers showed that the health literacy of both the patients and their care workers was worrying. The study established that home-based patients were inconsistent in accessing, interpreting, and acting on their health information. The home-based care workers were themselves hesitant in the provision of services to their patients. This study shows that health literacy affects the provision and delivery of home-based care to patients.

A similar study by Polacsek et al. (2020) in Australia used semi-structured interviews to collect data from 5 home-based health care workers and four people with dementia. The study focused on dementia home care workers. Findings from the study revealed that dementia home-based care workers lack the necessary skills and knowledge of dementia. Further, the workers were not only limited in knowledge of dementia but they were also challenged in basic skills such as communication and creating rapport with the patients. This shows that literacy skills, both related to health matters as well as general literacy, affect the administration and delivery of home-based skills.

The nature of illnesses also affects the provision of home-based care. For example, some diseases and conditions might be contagious and expose the home care workers to infection. A recent study was carried out on covid-19 and home care workers in New York during the onset of the pandemic in 2019 (Sterling et al., 2020). From the study, results showed that the healthcare workers working with home-based patients were at risk of contracting the covid-19 virus. Further, information on the virus was scanty for them and they had to rely on alternative sources for the relevant information.

In the case of Covid 19, the critical success factor for virtual ward support is that the patient needs to be trained and supported to self-manage and express concerns if things are not going according to plan. Thus, measures to compensate for inequalities where virtual ward support is more of a challenge in people with low health literacy, low digital literacy, limited connectivity or

lack of technology, T (• Aantjes) thus, using basic technologies such as the telephone would be reliable to extend the reach and accessibility of primary care offered at home. Based on (• Scheffler, 2019), specific training of the community Health care workers, focusing on how to educate, support, and train family caregivers, provide assistive devices, and understand when referring to health services is needed.

Literature Synthesis:

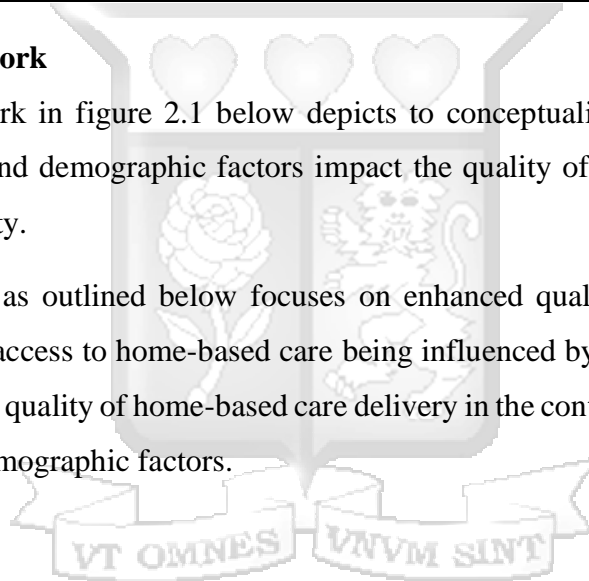
Author	Title	Dependent Variable
Tønnessen et al., 2011; Vincent & Amalberti, 2016).	Rationing home-based nursing care; Professional ethical implication	Legal Factors
Vincent & Amalberti, 2016	Human-Centered design of the patient journey for patient safety	
Lundberg K., 2017	Lifting the burden formal care of elderly and labor supply of adult children	
Rhee et al's. (2018)	Factors affecting palliative care development in Africa: In-Country experts' perceptions in seven countries	
Rasoal, Kihlgren, and Skovdahl (2018)	Balancing different expectations in ethically difficult situations while providing community home health care services: a focused ethnographic approach.	
Gershon et al., 2012	Safety in the home healthcare sector: development of a new household safety checklist.	Social-Economic Factors
Lang et al., 2014	Researching triads in-home care: perceptions of safety from home care clients, their caregivers, and providers	
Moholt, Friborg, Blix, and Henriksen (2020)	Factors affecting the use of home-based services and out-of-home respite care services: A survey of family caregivers for older persons with dementia in Northern Norway	
Yang et al., 2019	Ten things every geriatrician should know about house calls	Demographic factors
Moholt, Friborg, Blix, and Henriksen's (2020)	Factors affecting the use of home-based services and out-of-home respite care services: A survey of family caregivers for older persons	

	with dementia in Northern Norway	
Mah et al. (2021)	Social factors influencing utilization of home care in community-dwelling older adults: a scoping review	
Palesy and Jakimowicz (2020)	Health literacy support for Australian home-based care recipients: A role for home care workers	
Polacsek et al. (2020)	I know they are not trained in dementia’: Addressing the need for specialist dementia training for home care workers	
Sterling et al., 2020	Experiences of home health care workers in New York City during the coronavirus disease 2019 pandemic: a qualitative analysis	

2.4 Conceptual Framework

The conceptual framework in figure 2.1 below depicts to conceptualize how the various legal factors, socioeconomic and demographic factors impact the quality of home-based care service delivery in Nairobi County.

The Dependent variable as outlined below focuses on enhanced quality of care, health status, resource utilization, and access to home-based care being influenced by the independent variable to effectively measure the quality of home-based care delivery in the context of legal factors, socio-economic factors, and demographic factors.



Independent Variables

- Legal factors**
- Guiding policies and laws
 - Ethical concerns
 - Workers' rights and privileges

- Socio-economic factors**
- Home environment
 - Occupants in the home
 - Hazards at home
 - Client affordability

- Demographic factors**
- Age of patients
 - Patient's Gender
 - Nature of illness
 - Literacy levels
 - Homecare worker numbers and qualifications

Dependent Variable

- Home-based care**
- Enhanced quality of care
 - Enhanced health status
 - Better use of resources
 - Improved access to home-based care

Figure 2.1 Conceptual Framework

2.5.1 Operationalization of variables

Table 2.1 shows how the variables in this study have been operationalized.

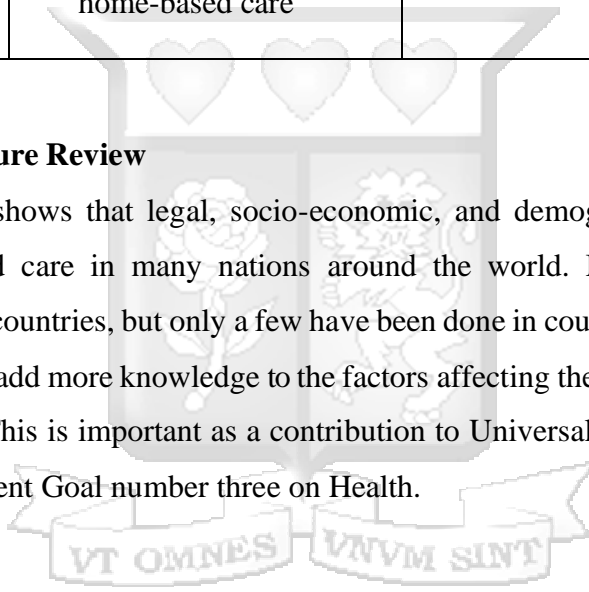
Table 2.1: Operationalization of variables

Variable	Variable type	Indicators	Item in questionnaire	Type of data	Analysis
Factors affecting home-based care	Independent	Legal factors <ul style="list-style-type: none"> • Guiding policies and laws • Ethical concerns • Workers' rights and privileges 	Questions No. 4-7	Ordinal data	Descriptive and inferential
	Independent	Socio-economic factors <ul style="list-style-type: none"> • Home environment • Occupants in the home • Hazards at home • Client affordability 	Questions No. 8-12	Ordinal data	Descriptive and inferential

	Independent	Demographic <ul style="list-style-type: none"> • Age of patients • Patient’s Gender • Nature of illness • Literacy levels • Homecare worker numbers and qualifications 	Questions No. 13-19	Ordinal data	Descriptive and inferential
Home-based care	Dependent	Home-based care <ul style="list-style-type: none"> • Enhanced quality of care • Enhanced health status • Better use of resources • Improved access to home-based care 	Questions No. 20-24	Ordinal data	Descriptive and inferential

2.5 Summary of Literature Review

The reviewed literature shows that legal, socio-economic, and demographic factors affect the provision of home-based care in many nations around the world. Many studies have been conducted in developing countries, but only a few have been done in countries such as Kenya. This study, therefore, seeks to add more knowledge to the factors affecting the provision of home-based care delivery in Kenya. This is important as a contribution to Universal Health Coverage as well as Sustainable Development Goal number three on Health.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter aims to present the research methodology that was used to respond to the research objectives. Thus, the research paradigm, design, population and sampling, data collection methods, validity and reliability, data analysis, and research ethics were covered.

3.2 Research Philosophy

This study utilized both a positivism and interpretivism paradigm, where a mixed approach was used to examine the factors that influence home-based care delivery in Kenya. From a healthcare personnel perspective, the research aimed to explore the delivery of home-based care and what factors influence their work environment in a more holistic approach based on Socioeconomic, Legal, and demographic factors.

3.3 Research design

A descriptive research design was adopted for this study as this is considered the most appropriate to answer the set objectives. Thus, a descriptive research design was used to examine the factors that influence home-based care delivery in Kenya regarding universal health coverage or answer the question: what factors influence the provision of home-based care delivery in Kenya regarding universal health coverage?

3.4 Target Population

There are several facilities in Nairobi that undertake home-based care, the basis of the selection criteria was based on the willingness of the facilities to be involved in the study. Other facilities were hesitant to undertake the study.

The target population for this study was health care workers registered as home-based care providers and the facilities providing such care. In Nairobi County, about 9 facilities were sampled offering home-based care with a combined population of 68 healthcare workers who formed the population of interest for this research. The participants were targeted based on their health care qualifications.

Table 3.1 Target Population

Facility	Number of Health Care Workers
Go Care	13
Avenue homecare	10
Heart of Hope	6
Pinnacle	7
Roseanne	5
Big heart	9
Zoya homecare	5
Helping hands	6
ScLife Care	7
Total	68



3.5 Sampling Design and Sample Size

Ordinarily owing to the size of populations, it is often more challenging to study the entire population, hence the need for a representative sample. In research, samples are chosen based on their representativeness, and will often have characteristics that mirror those of the entire population (Bryman, 2012). The sample frame for the study was drawn from the operational home-based care providers within Nairobi County. The research will conduct purposive sampling to select the participants in the survey. Through purposive sampling, the researcher ensured that only workers within the home-based care institutions were involved in the research. In this study, the interest was in healthcare workers and facilities licensed to carry out home-based delivery. The sample was not based on a formula of sampling but rather based on the availability of the few healthcare workers available for the study. The study utilized a total of 68 healthcare workers within the selected institutions.

3.6 Data Collection Instrument

Data collection in this study was done through researcher-administered semi-structured questionnaires (Appendix 1) with members of the selected registered facilities offering home-based care. According to Bryman (2012), questionnaires are easy to construct, cost-effective, and can be used to sample a large population within a short period. Thus, the questionnaires were most effective for a study being conducted across the County. The study questionnaires were developed in line with the study's objectives and informed by the operationalization of the variables. The research used a quantitative structured approach in questionnaire development. Further, qualitative questions were provided to the participants to provide more information that may have not been captured in the structured questions, thus enhancing the quality of the data utilized to answer the research problem.

3.7 Data Collection Procedures

The study ensured that various approvals from the institution and individual home-based care health facilities were given before data collection. The study engaged the participants before data collection and ensured they were aware of their rights and the aims of the study. The researcher used a trained research assistant to administer the questionnaires through a drop-and-pick method and further Google forms were applied in the data collection process. A pretest of the study instrument was conducted to ascertain its reliability and validity of the

research instrument. The pre-testing of the questionnaire was undertaken using the research assistant.



3.7.1 Validity and Reliability Tests

Validity in research refers to the ability of a research instrument to measure what it is supposed to measure. On the other hand, reliability focuses on the consistency of a measurement tool (Cohen et al. 2007; Bryman, 2012; Drost, 2011). Validity in this study was attained through discussion with subject experts, (the dissertation supervisor) while reliability was established through pilot-testing the instrument. The pilot results were analyzed via the Cronbach's Alpha test; if the value of the results attained is at least 0.7, then the tool was deemed reliable (Bryman, 2012; Tavakol & Dennick, 2011).

Table 3.2 Reliability Results

Variable	Cronbach's Alpha	N of Items
Legal factors	.810	3
Socioeconomic factors	.760	5
Delivery of home-based care	.832	4

The analysis showed that the study variables had a Cronbach alpha greater than 0.7 which ensured there was internal consistency in the study instrument.

3.8 Data Analysis and Presentation

The research utilized both quantitative and qualitative data. The qualitative data were the open-ended questions in the questionnaire administered to the healthcare workers, in analyzing the various factors that influence the delivery of home-based care services in Kenya. Quantitative data analysis was informed by the adoption of the Likert-based statements in the research questionnaire. For quantitative analysis, the researchers used both descriptive and inferential statistics were used in the analysis of data. Measures of central tendencies (mean, mode) and the standard deviations, as well as pie charts, and bar graphs were used to present descriptive data. The study applied correlation analysis as well as regression analysis for inferential statistics. The collected qualitative data was analyzed thematically in line with the objectives of the study. The research estimated the below regression analysis in analyzing the factors that influence home-based care delivery in Kenya.

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where:

Y = home-based care delivery in Kenya

X_1 = legal factors

X_2 = socioeconomic factors

X_3 = demographic factors

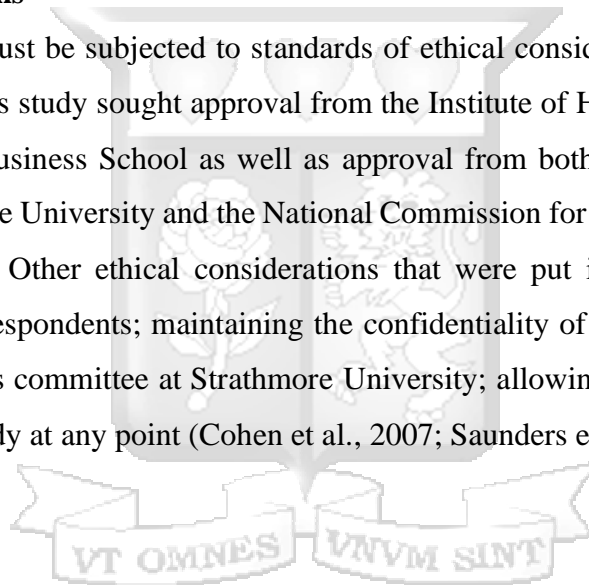
β_1 , β_2 , and β_3 are regression coefficients of the independent variables

ε = variance errors component

The results of the study were presented using charts, bar graphs, and tables as deemed appropriate.

3.9 Ethical considerations

All studies carried out must be subjected to standards of ethical consideration, more so those in healthcare. Therefore, this study sought approval from the Institute of Healthcare Management at Strathmore University Business School as well as approval from both the Institutional Review Board (IRB) at Strathmore University and the National Commission for Science, Technology, and Innovation (NACOSTI). Other ethical considerations that were put in place include: seeking informed consent from respondents; maintaining the confidentiality of the respondents and their institutions and the ethics committee at Strathmore University; allowing the participant free will to withdraw from the study at any point (Cohen et al., 2007; Saunders et al., 2016).



CHAPTER FOUR PRESENTS OF RESEARCH FINDINGS

4.1 Introduction

This chapter presents study findings emanating from the analysis of the data collected from the study responses. The chapter focused on the background information, the descriptive results, correlation tests, and both the simple linear regression and the multiple regression analysis to determine the strength of the relationship between the legal, socioeconomic, and demographic factors, and home-based care delivery.

4.2 Background Information

This section of the study presented the background information of the survey, which comprised the research response and the demographic profile of the participants.

4.3 Research Response Rate

The study sought to obtain responses from 68 health care workers from 9-home-based care facilities operating within Nairobi County. The research utilized a mixed approach in the data collection process and was able to obtain 87% (n=59) responses while 13% (n=9) of the participants were not able to participate in the survey. The non-responsive participant was not available to undertake the study since they were on duty at the time which did not provide sufficient time to undertake the study in the set timelines of the study. The response of that research was deemed adequate for consideration in the survey since it was beyond 60% which is expected for a quantitative research survey (Bryman, 2012).

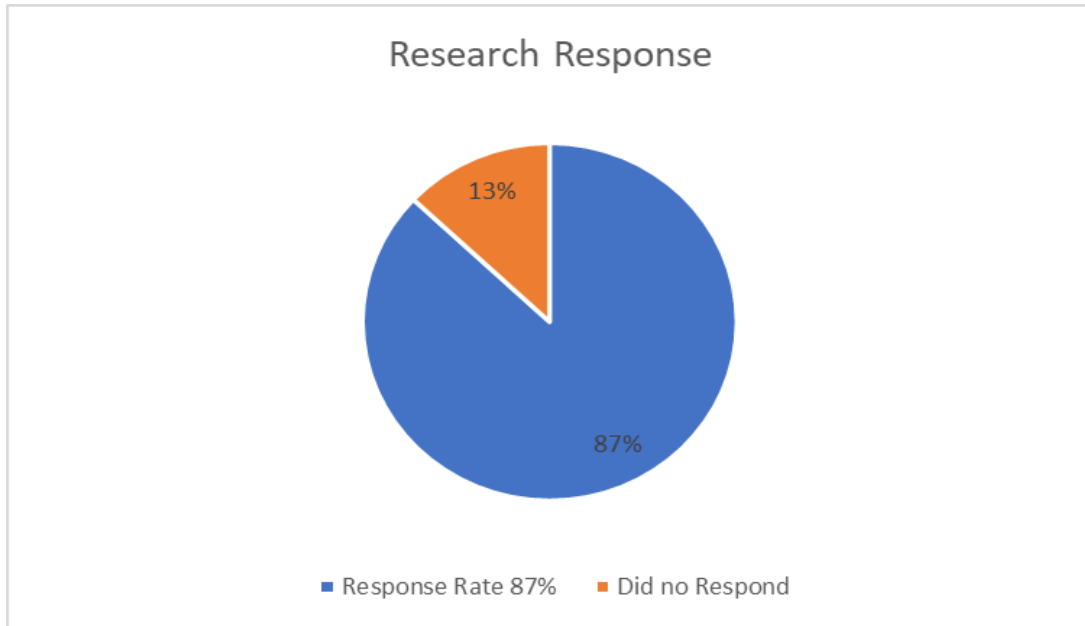


Figure 4.1 Response Rate

4.4 Demographic Information

The survey queried the healthcare workers on some demographic factors focused on their gender, education level, and level of experience in home-based care delivery. A summary of the responses is provided below.

Table 4.1 Demographic Result

Gender of Respondents	Frequency	Percentage
Male	26	44.1
Female	33	55.9
Total	59	100.0
Level of Education of respondent		
Diploma	16	27.1
Bachelor's degree	25	42.4
Master's	14	23.7
PhD	4	6.8
Total	59	100.0
Length of time practicing as a home-based care worker		
0-3 years	16	27.1
4-7years	31	52.5
Over 8 years	12	20.3
Total	59	100.0

The study revealed that the majority of the respondents 56% (n=33) were female health care workers and only 44% (n=26) were male workers. The study findings demonstrated that most of the health care workers 42% (n=25) had a bachelor's degree, 27% (n=16) had a diploma and only 25% (n=14) indicated they had a master's degree. These results demonstrated that most of the health care workers considered in the survey have a high educationalization qualification, which can be key to providing their home-based care services that rely on high competency and professionalism. The respondents showed that the majority of health care workers 53% (n=31) had 4-7 years of practice experience and 20% (n=12) had over 8 years which is an indication that the participants are in a position to identify the factors that are critical to the delivery of home-based care in Nairobi County.

4.5 Descriptive Analysis

The research employed questionnaires in the data collection and the various measures of central tendency such as mean, mode, and standard deviation were applied in the analysis. The findings are presented in line with the adapted study variables. The mean was interpreted using the key below; *less than 1.5 = to no extent, 1.50-2.49 = small extent, 2.50-3.49 = large extent, over 3.50 = very large extent.*

4.5.1 Legal Factors

The study focused on understanding if legal factors influence home-based care delivery and the summary of the findings is shown in Table 4.2.

Table 4.2 Legal Factor

	N	Mode	Mean	Std. Deviation
Guiding policies and laws	59	3.00	2.5932	.69775
Ethical concerns	59	3.00	2.8983	.80290
Workers' rights and privileges	59	3.00	2.7966	.76066
Overall			2.7627	0.754

The survey showed that to a large extent ethical concerns were key to home-based care delivery as demonstrated by a mean of 2.898 with a moderate deviation of .803. The findings noted that to a moderate extent the guiding policies and laws are vital to home-based care delivery (mean =

2.593, dev = .698). The overall results showed a mean of 2.763, dev = .754 which noted that participants agreed that to a moderate extent legal factors affect the provision of home-based care in Kenya. The responses recorded in the open-ended question showed consensus among participants that there is a need for the following legal factors to be considered;

‘Development of proper guidelines on provision of home-based care, revision of the taxation policies concerning home-based care facilities, formulation of safety and health guidelines for all home-based care institutions, education requirements for all workers in the facilities, and enforcement of ethical guidelines and moral code of conduct in the profession’

‘The participants further noted there is a need for a harmonized medical policy that will be the benchmark framework in the delivery of home-based care. The health workers revealed there is a need to enforce patient privacy laws to improve the quality of service delivered and protect patient data

‘The respondents agreed there is a need for the Ministry of Health to provide structured guidelines that will enhance patient safety through a robust practitioner qualification requirement. The government should also be clear in terms of regulations and policy guidelines on what encompasses home-based care management

4.5.2 Socioeconomic Factors

The research examined the socioeconomic factors and to what extent they influence home-based care delivery and the summary of the findings is shown in Table 4.3.

Table 4.3 Socioeconomic Factor

	N	Mode	Mean	Std. Deviation
Home environment	59	3.00	3.0678	.76258
Home resources in relation to care	59	3.00	3.2203	.69649
Occupants in the home	59	3.00	2.8983	.73567
Hazards at home	59	3.00	2.8475	.71471
Client affordability	59	3.00	3.2542	.73328
Overall			3.00	0.728

The health care workers noted that to a large extent the home resources did influence the delivery of home-based care (mean = 3.22, dev = .696). The results noted to a large extent that client affordability as denoted by a mean of 3.254 affected the provision of home-based care in Kenya.

The analysis noted that to a large extent the home environment also influenced the provision of home-based care in Kenya as shown by a mean of 3.068 and a moderate deviation of .763. The overall findings had a mean of 3.00 with a deviation of .728 which demonstrated that to a large extent the healthcare workers viewed socioeconomic factors as vital to the provision of home-based care in Kenya. Further analysis of the open-ended results showed a pattern where healthcare workers agreed that more socioeconomic factors influenced the provision of home-based care in Kenya such as;

'Language barrier and education qualification of the clients did impact the provision of home-based care. More so, the healthcare workers were in consensus that clients' marital status, religion, gender, and culture did affect the provision of home-based care. Further, long-term reliance on home-based care had financial constraints that most households could not manage.'

'Also, respondents noted that poor medical records storage and lack of financial capacity to acquire patient medical equipment impacted the provision of home-based care. The participants indicated that the availability of medical insurance has been key to ensuring the patients can afford home-based care. However, most insurers do not provide such services hence there is a need for improvement in the medical insurance industry to ensure home-based care patients are covered'

'The participants further acknowledged that affordability is a major concern in most households. More so, in cases where Long-term dependence on home-based care is needed the high costs make it untenable to deliver care since this service is not facilitated by the National Health Insurance Fund'

4.5.3 Home-Based Care Delivery

The dependent variable for the study focused on the healthcare worker's opinion on the characteristics of ideal home-based care. The analysis of the data is shown in Table 4.4

Table 4.4 Home-Based Care Delivery

	N	Mode	Mean	Std. Deviation
Enhances quality of care	59	3.00	3.3220	.70566
Enhances health status	59	4.00	3.3390	.73368
There are enough resources available	59	3.00	3.0169	.77663
Improved access to home-based care	59	3.00	3.2034	.76066
Overall	59		3.186	0.757

The healthcare workers noted that to a large extent the quality of care (mean = 3.322) and the enhanced health status (mean = 3.339) were ideal characteristics of home-based care delivery within the County. The respondents showed that to a large extent having enough resources and improved access to home care were key characteristics of ideal home-based care delivery as indicated by a mean of 3.017 and 3.203 respectively. The health care workers revealed that other ideal characteristics for home-based care delivery were;

‘Secure service provision, wider geographical access to home-based care, reliability, improved nutritional care, privacy and confidentiality of patients, commutant issues, adequate space, Water, and Electricity are required for an ideal home-based care environment, and provision of counseling and mental health programs.

4.6 Inferential Analysis

4.6.1 Correlation Analysis

The research used correlation analysis to determine the relationship between the study variables with Spearman rank correlation applied in the analysis. The test results are presented in Table 4.5.

Table 4.5 Correlation Result

		Delivery of Home-Based Care	
Spearman's rho	Delivery of Home-Based Care	Correlation Coefficient	1.000
		Sig. (1-tailed)	.
		N	59
	Legal Factors	Correlation Coefficient	-.067
		Sig. (1-tailed)	.307
		N	59
	Socio-economic Factors	Correlation Coefficient	.480**
		Sig. (1-tailed)	.000
		N	59
	Male	Correlation Coefficient	-.158
		Sig. (1-tailed)	.117
		N	59
	Female	Correlation Coefficient	.158
		Sig. (1-tailed)	.117
		N	59
	Diploma	Correlation Coefficient	-.353**
		Sig. (1-tailed)	.003
		N	59
	Bachelors	Correlation Coefficient	.257*
		Sig. (1-tailed)	.024
N		59	
Masters	Correlation Coefficient	.097	
	Sig. (1-tailed)	.232	
	N	59	
PhD	Correlation Coefficient	-.046	
	Sig. (1-tailed)	.364	
	N	59	
Less than 3years	Correlation Coefficient	-.173	
	Sig. (1-tailed)	.096	
	N	59	
4-7 years	Correlation Coefficient	.012	
	Sig. (1-tailed)	.464	
	N	59	
Over 8 years	Correlation Coefficient	.176	
	Sig. (1-tailed)	.092	
	N	59	

The findings showed there is a weak negative and insignificant relationship between the legal factors and the delivery of home-based care in Nairobi County ($r = -.067$, $\text{sig} = .307 > .05$). The correlation tests revealed a moderate positive and significant correlation between socioeconomic factors and delivery of home-based care ($r = .480$, $\text{sig} = .000 < .05$). The results established a weak negative association between diploma holders and delivery of home-based care ($r = -.353$, $\text{sig} = .003 < .05$). Findings noted a weak positive and significant effect on health care workers with bachelor's degrees and the provision of home-based care ($r = .257$, $\text{sig} = .024 < .05$). The analysis revealed a weak positive and insignificant effect of healthcare workers with 4-7 years ($r = .012$) and over 8 years ($r = .176$) with the delivery of home-based care ($\text{sig} = > .05$).

4.6.2 Simple Linear Regression

The research sought to establish the legal factors, socioeconomic factors, and demographic factors that influence home-based care delivery in Nairobi County. The study employed simple linear regression to establish the effect of each independent variable on home-based care delivery. The results are presented in line with the objectives of the research.

4.6.3 Effect of Legal Factors on Home-Based Care Delivery

The study influence effect of legal factors on home-based care delivery and the results are shown in Table 4.6.

Table 4.6 Regression of Legal Factors and Home-Based Care Delivery

a. Dependent Variable: Delivery of Home-Based Care

The regression findings in Table 4.6 show a regression coefficient of determination yielded from the analysis ($R^2 = .010$) which signified that holding other factors constant legal factors determined 1% of the changes in the delivery of home-based care in Nairobi County. The ANOVA analysis was conducted to ensure the results of the regression presented above have statistical significance. The ANOVA findings showed a $F = .578$, with a $\text{Sig} = .450 > .05$. This was an indication that legal factors had a positive and insignificant relationship delivery of home-based care in Nairobi County. The regression coefficient showed a coefficient for legal factors $\beta_1 = -.119$, $\text{sig} = .450 > .05$. This implied that legal factors do not influence the delivery of home-based care services in Nairobi County.

$$Y = 13.867 + -.119X_1 + .156$$

Where; Y is delivery of home-based care in Nairobi County, X_1 is labor factors

4.6.4 Effect of Socioeconomic Factors on Home-Based Care Delivery

The regression analysis sought to establish the effect of socioeconomic factors on home-based care delivery and the results are shown in Table 4.7.

Table 4.7 Regression of Socioeconomic Factors and Home-Based Care Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.520 ^a	.271	.258	1.94643		
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	80.221	1	80.221	21.174	.000 ^b
	Residual	215.949	57	3.789		
	Total	296.169	58			

a. Dependent Variable: Quality of Home-Based Care

b. Predictors: (Constant), Socioeconomic Factors

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.625	1.597		3.522	.001
	Socioeconomic Factors	.475	.103	.520	4.602	.000

a. Dependent Variable: Quality of Home-Based Care

The regression findings in Table 4.7 show a regression coefficient of determination yielded from the analysis ($R^2 = .271$) which signified that holding other factors constant socioeconomic factors determined 27.1% of the changes in the delivery of home-based care in Nairobi County. The ANOVA analysis was conducted to ensure the results of the regression presented above have statistical significance. The ANOVA findings showed an $F = 21.174$, with a $Sig = .000 < .05$. This was an indication that socioeconomic factors had a positive and significant relationship delivery of home-based care in Nairobi County. The regression coefficient showed a coefficient for socioeconomic factors $\beta_2 = .475$, $sig = .000 < .05$. This implied that socioeconomic factors have a positive influence on the delivery of home-based care services in Nairobi County. A change in socioeconomic factors will lead to a .475 (47.5%) positive change in the delivery of home-based care services.

$$Y = 5.625 + .475X_2 + .103$$

Where; Y is delivery of home-based care in Nairobi County, X_2 is socioeconomic factors

4.6.5 Effect of Demographic Factors on Home-Based Care Delivery

The study examined the effect of demographic factors on home-based care delivery and the results are shown in Table 4.8.

Table 4.8 Regression of Demographic Factors and Home-Based Care Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.469 ^a	.220	.130	2.10769		
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	65.168	6	10.861	2.445	.037 ^b
	Residual	231.002	52	4.442		
	Total	296.169	58			

a. Dependent Variable: Quality of Home-Based Care

b. Predictors: (Constant), Over 8 years, Bachelors, Female, Ph.D., less than 3 years, Masters

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.766	.821		13.113	.000
	Female	.518	.604	.115	.857	.396
	Bachelors	2.347	.786	.518	2.987	.004
	Masters	2.252	.927	.428	2.428	.019
	PhD	.803	1.314	.090	.611	.544
	Less than 3years	.403	.778	.080	.518	.607
	Over 8 years	.656	.736	.118	.891	.377

a. Dependent Variable: Quality of Home-Based Care

The regression findings in Table 4.7 show a regression coefficient of determination yielded from the analysis ($R^2 = .220$), which signified that holding other factors constant demographic factors determined 22% of the changes in home-based care delivery in Nairobi County. The ANOVA analysis was conducted to ensure the regression results presented above have statistical significance. The ANOVA findings showed an $F = 2.445$, with a $Sig = .037 < .05$. This was an indication that demographic factors had a positive and significant relationship delivery of home-based care in Nairobi County.

The regression coefficient showed a significant coefficient for healthcare workers with a bachelor's degree ($\beta_2 = 2.347$, sig = .004<.05) and healthcare workers with a master's degree ($\beta_3 = 2.252$, sig = .019<.05), showing that education qualification will significantly lead to better delivery of home-based care. The study indicated a coefficient for healthcare workers with less than 3 years ($\beta_3 = .403$, sig = .607>.05) and over 8 years ($\beta_4 = .656$, sig = .377>.05) which was an indication that t length of time practicing home-based care did not have a significant influence on the delivery of the services.

The findings also showed that female health workers did not significantly improve the delivery of home-based care services ($\beta_5 = .518$, sig = .396>.05). As a result of the model's collinearity issues, the following demographic factors were excluded in the regression; male, diploma-holders, and health care workers with 4-7 years of practice.

4.7 Regression Summary

The research applied a simple linear regression to estimate the composite effect of legal factors, socioeconomic factors, and demographic factors on the delivery of home-based care services in Nairobi County. The findings are presented in Table 4.9

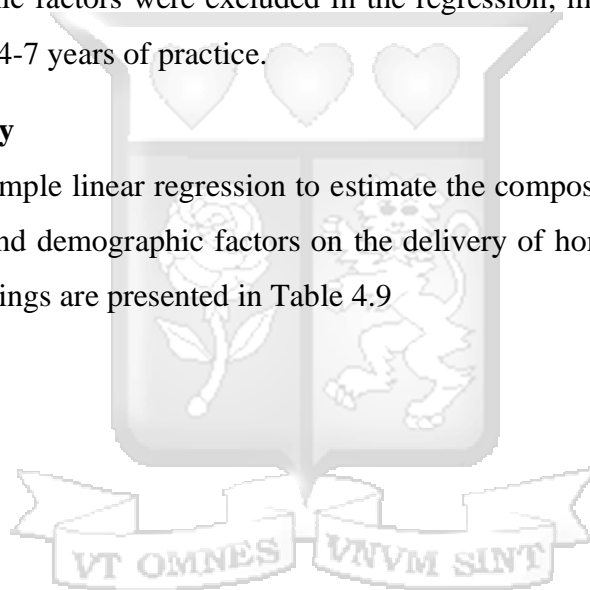


Table 4.9 Regression of Legal, Socioeconomic, Demographic Factors and Home-Based Care Delivery.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.626 ^a	.391	.294	1.89874

a. Predictors: (Constant), Over 8 years, Bachelors, Legal Factors, Socioeconomic Factors, Female, Ph.D., less than 3years, Masters

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	115.909	8	14.489	4.019	.001 ^b
	Residual	180.261	50	3.605		
	Total	296.169	58			

a. Dependent Variable: Quality of Home-Based Care

b. Predictors: (Constant), Over 8 years, Bachelors, Legal Factors, Socioeconomic Factors, Female, Ph.D., less than 3years, Masters

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.503	2.014		3.229	.002
	Legal Factors	-.106	.134	-.089	-.790	.433
	Socioeconomic Factors	.387	.108	.424	3.595	.001
	Female	.248	.551	.055	.449	.655
	Bachelors	1.654	.736	.365	2.246	.029
	Masters	1.505	.871	.286	1.727	.090
	PhD	.833	1.186	.093	.703	.486
	Less than 3years	-.043	.713	-.009	-.060	.952
	Over 8 years	.495	.665	.089	.744	.460

a. Dependent Variable: Quality of Home-Based Care



The regression findings in Table 4.9 show a regression coefficient of determination yielded from the analysis ($R^2 = .391$) which signified that holding other factors constant legal factors, socioeconomic factors, and demographic factors determined 39.1% of the changes in the delivery of home-based care in Nairobi County. The ANOVA analysis was conducted to ensure the results of the regression presented above have statistical significance. The ANOVA findings showed an $F = 4.019$, with a $Sig = .001 < .05$. This was an indication that legal factors, socioeconomic factors, and demographic factors had a positive and significant relationship with the delivery of home-based care in Nairobi County home-based session coefficient showed a negative and insignificant coefficient for legal factors ($\beta_1 = -$

.106, $sig = .433 > .05$) on home-based care delivery. The study indicated a coefficient for socioeconomic factors ($\beta_2 = .387$, $sig = .001 < .05$) was significant which established that changing socioeconomic factors will contribute to a 0.387 positive change in the delivery of the services. The findings also showed that health workers with bachelor's degrees significantly improved the delivery of home-based care services ($\beta_3 = 1.654$, $sig = .029 < .05$). This showed that recruiting more health care workers with a bachelor's degree will result in better delivery of home-based care. The study noted there was an insignificant influence of female healthcare workers on = .655 > .05), Master's degree holders ($sig = .090 > .05$), PhD holders ($sig = .486 > .05$), less than 3-years of experience ($sig = .952 > .05$) and over 8-years' experience ($sig = .460 > .05$).

4.8 Summary

The fourth chapter of the study focused on presenting the results of the data analysis that was conducted. The research obtained 87% of the responses from the sample participants. The correlation tests conducted indicated a negative effect of legal factors on the delivery of home-based care while socioeconomic factors positively influenced the service delivery. The results also showed that in relation to demographic factors education (diploma-holders had a negative effect; degree holders positively influenced the delivery of services) and experience of healthcare workers had an insignificant effect. Regression results established that determined 39.1% of the changes in home-based care delivery in Nairobi County can be predicted by legal, demographic, and socioeconomic factors.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The last chapter of the study dwelt on the summary of the research and the discussion of the study findings inconsistent with the empirical studies. The chapter presented the conclusions in line with the results, the recommendations, and areas for further examination.

5.2 Summary

Kenya has resorted to home-based care, especially during the pandemic in which covid-19 patients have been pushed to self-isolation due to the increasing number of patients. Further, the pandemic has stretched the local health sector, which has led to home-based care facilities bridging the culminating gap and assisting in the provision of home-based care for patients. Despite understanding the concept of home-based care, there has been minimal interrogation of the factors that impact home-based care delivery. This necessitated the current research to determine the influence of demographic, legal, and socioeconomic factors on home-based care delivery in Nairobi County. The research scope was focused on the 8 home-based care facilities within Nairobi County.

The study was premised on the Neal Theory of home health nursing and Nightingale's Environmental theory. The study was grounded on the positivist paradigm, where a mixed approach was used to examine the factors that influence home-based care in Kenya. The population for the examination was drawn from 68 health care workers drawn from the 9 home-based care facilities in Nairobi County. The study utilized a semi-structured tool in the data collection process with both physical questionnaires and online data collection procedures utilized in the examination. The study was able to obtain an 87% response rate from the sample participants. The study revealed that the majority of the respondents 56% were female health care workers and only 44% were male workers. The correlation tests showed that legal factors had a negative insignificant effect on home-based care delivery.

Findings also established that socioeconomic factors had a moderate and positive relationship with home-based care delivery. The demographic result showed that gender did not have a significant correlation with the delivery of home-based care. The analysis also showed that health care workers with a diploma had a negative and significant effect on the delivery of home-based care

while workers with bachelor's degrees positively and significantly contributed to the delivery of home-based care. The regression tests showed that 39.6% of the changes in the delivery of home-based care factors are determined by demographic, legal, and socioeconomic factors.

5.3 Discussion

The regression findings revealed that holding other factors constant legal factors, socioeconomic factors, and demographic factors determined 39.1% of the changes in home-based care delivery in Nairobi County. These findings mirror the tenet of the Neal Theory of Home Health Nursing which posited that for home care workers to be successful in their work, legal, socio-economic and demographic factors play an instrumental role. This has been confirmed in the current study context which has shown these three critical factors have a significant role in contributing to home-based care delivery. The study results are also consistent with Nightingale's environmental theory which is premised on the proposition that the kind of environment (physical, legal, etc.) that a patient is exposed to should support the recovery of home-based patients.

5.3.1 Legal Factors and Home-Based Care Delivery

The respondents noted that to a small extent the guiding policies and laws, ethical concerns, and worker rights and privileges were viewed to influence home-based care delivery. The correlation showed that legal factors did not significantly affect home-based care delivery. This was also ascertained in the regression results which showed no significant influence of legal factors on home-based care delivery. These results are consistent with Tønnessen et al., (2011) who found out that failure in home-based care in some countries was due to a lack of an effective legal environment. Rasool, Kihlgren, and Skovdahl (2018) in their examination noted that inconsistencies between the legal, ethical, and confidential issues contributed to challenges and conflicts in the provision of home-based care. Green and Ayalon (2018) believed that poor protection of workers' rights and privileges impacted the delivery of home care. Similar observations were made in a Kenyan study by Rhee et al's. (2018) found that poor legal protection contributed poorly to the administration of home-based care. However, the findings are not consistent with Vincent and Amalberti (2016) contend that to some large extent the provision of home-based care is affected by the various legal factors within a country. Similarly, Lundberg (2018) noted that compliance with the laid-down regulations and guidelines by care workers did significantly contribute to the quality of care administered.

5.3.2 Socioeconomic Factors and Home-Based Care Delivery

The analysis pointed out that the home environment and the home resources for care were to a great extent key to home-based care delivery. The findings showed participants' agreement that to a great extent occupant at home, hazards at home, and client affordability do influence home-based care delivery. The regression established a positive and significant effect of socioeconomic factors on home-based care delivery. Lang et al., (2014) in a survey were able to confirm that having a conducive environment can be integral to improving the provision of home-care services. King, Holliday, and Andrews (2018) revealed that home environment, availability of equipment, and collaborative stakeholders can significantly lead to better provision of home-based care. Similar sentiments were made by Danielsen, Sand, Rosland, and Fjørland (2018) who found out that collaboration between care providers, patients, and their kin is vital to the effectiveness of home-based care. Rahman, Efird, and Byles (2019) established that the availability of adequate finances is key to improving engagement in home-based care services. This is in line with Moholt, Friberg, Blix, and Henriksen (2020) who showed that people in urban areas have more access to home-care-based services.

5.3.3 Demographic Factors and Home-Based Care Delivery

The study revealed that the majority of the respondents 56% were female health care workers and only 44% were male workers. The regression tests showed that the presence of female health workers did not significantly impact the delivery of home-based care. This was an indication that gender did not play any role in impacting the delivery of home-based care in Nairobi County. These findings are inconsistent with Mah, Stevens, Keefe, Rockwood, and Andrew's (2021) study that found that gender was a key factor influencing the provision of home-based care. The findings demonstrated that of most of the health care workers 42% had a bachelor's degree, had a diploma, and only indicated they had a master's degree. Further regression testing confirmed that healthcare workers with a Bachelor's degree significantly improved the delivery of home-based care in Nairobi County. These findings agree with Yang et al., (2019) who concluded that literacy levels contributed successfully to the provision of home-based care. Mah et al. (2021), the study noted that higher education levels were associated with increased access to home-based care services. Palesy and Jakimowicz (2020) revealed that health literacy among care workers was a significant predictor of the provision of home-based care to patients. The study showed that healthcare workers with a Masters's and a Ph.D. degree did not have any influence on the delivery

of home-based care in Nairobi County. The respondents showed that the majority of health care workers 53% had 4-7 years of practice experience and 20% had over 18 years. The analysis established that the level of experience practicing did not have a significant influence on the delivery of home-based care in Nairobi County. The findings are inconsistent with Polacsek et al. (2020), who found that general literacy of health matters significantly improved the administration and provision of home-based skills.

5.4 Conclusions

The study aimed to understand how factors such as legal requirements, socioeconomic, and demographics of both patients and caregivers might influence the delivery of home-based care services in Kenya. In line with the findings, the overall conclusion of the research is that legal factors, socioeconomic factors, and demographic factors significantly influence the delivery of home-based care in Nairobi County. The first objective reviewed the legal factors and the findings established no significant influence on home-based care delivery in Nairobi County. This led to the conclusion that the current ethical concerns, guiding policies and laws, and the workers' rights and privileges among healthcare workers do not contribute to home-based care delivery in Nairobi County. The second objective analyzed the effect of socioeconomic factors and the results revealed a positive and significant relationship with the delivery of home-based care in Nairobi County. The results supported the conclusion that relying on the home environment, client affordability, occupants at home, hazards, and availability of home resources to care positively improved home-based care delivery in Nairobi County. The third objective examined the demographic factors and the findings supported the conclusion that gender and practice experience did not influence the delivery of home-based care in Nairobi County. The findings however led to the conclusion that healthcare workers with a bachelor's degree positively and significantly contributed to the delivery of home-based care in Nairobi County.

5.5 Recommendations

Policy-wise the study findings showed there is a gap in the legal factors concerning the delivery of home-based care. The research recommends that the Ministry of Health in collaboration with health care workers and nurses should together develop a collaborative framework that will create guidelines to guide the provision of home-based care. The study also noted there is a gap in the development of a legal framework to guide home-based care management, as such stakeholders in

the health sector should deliberate and develop a comprehensive policy to foster safety and health guidelines in the provision of home-based care. It's' further recommended that the Ministry should develop regulations to protect patient's rights and their data to ensure it's only utilized by authorized personnel and following the stated legal statutes. Lastly, in collaboration with government stakeholders, the health care workers should develop a standard ethical guideline that will be pivotal in contributing to the effective delivery of home-based care in Kenya.

Concerning the socioeconomic factors, the study recommends that through practical guidelines healthcare workers should develop cost-effective home-care management that can be utilized in the long-term by patients. This will be key to ensuring that patients can depend on and be able to maintain an affordable care service in the long term. The study recommends that creating awareness and providing knowledge on the various home-care-based services available in the country will improve the service demand. Further, the respondents noted that religious background and cultural beliefs impacted the delivery of home-based care services hence there is a need for health care workers to provide their services without any religious or cultural biases. This will lead to better delivery of home-based care in Kenya.

The study also recommends that healthcare workers concentrate on developing standardized methods and requirements for measuring and reporting the quality of home-based care services, which will be integral to supporting the better provision of home-based care. Further, through certification programs for health care workers, the facilities will positively improve the delivery of care within the community. It's' further recommended that increased education and professional development of healthcare will significantly improve their competencies, which can help drive home-based care delivery in Kenya.

5.6 Areas for Further Research

The study focused on home-based care facilities within Nairobi County. Such further studies should be conducted examining the provision of home-care-based services in marginalized communities in the country. The findings also noted an insignificant effect of legal factors, further studies should focus on the challenges of the legal environment in supporting the provision of home-based care in Kenya. Lastly, another study could be undertaken taking into consideration the patients' views on the critical factors to the quality of home-care-based services.

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APPENDICES

Appendix I: Introduction Letter

Ole Sangale Rd, Madaraka Estate,
P.O Box 59857 00200, Nairobi, Kenya.
Cell: +254 703 414/6/7, Twitter: @SBSKenya
Email: info@sbs.ac.ke or visit www.sbs.strathmore.edu



Tuesday, 02 November 2021

To Whom It May Concern,

RE: FACILITATION OF RESEARCH – CHESARO SARAH CHEBET

This is to introduce Sarah Chebet who is a **Master's of Business Administration in Healthcare Management** (MBA HCM) student at Strathmore University Business School, admission number MBA HCM 79068. As part of our MBA HCM Program, Sarah is expected to do applied research and undertake a project. This is in partial fulfilment of the requirements of the MBA HCM course. To this effect, she would like to request for appropriate data from your organization.

Sarah is undertaking a research paper on "**Influencing Home-Based Care Delivery in Universal Healthcare Coverage in Kenya.**" The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MBA HCM Program seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and shall be willing to provide any further information if required.

Yours Faithfully,

A handwritten signature in black ink, appearing to read "Caroline Tiara".

Caroline Tiara.
Manager – Graduate Programs.
Strathmore University Business School



Appendix II: NACOSTI Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 646942	Date of Issue: 15/November/2021
RESEARCH LICENSE	
	
This is to Certify that Ms.. Sarah Chesaro of Strathmore University, has been licensed to conduct research in Nairobi on the topic: FACTORS INFLUENCING HOME-BASED CARE DELIVERY IN UNIVERSAL HEALTHCARE COVERAGE IN KENYA for the period ending : 15/November/2022.	
License No: NACOSTI/P/21/14131	
646942 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code 
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	

Appendix III: Strathmore Ethics Approval



11th November 2021

Dr Chesaro Sarah,
schebett@gmail.com

Dear Dr Chesaro,

RE: Factors Influencing Home-Based Care Delivery in Universal Healthcare Coverage in Kenya

This is to inform you that SU-IERC has reviewed and **approved** your above **SU-master's** research proposal. Your application reference number is **SU-IERC1206/21**. The approval period is **11th November 2021 to 10th November 2022**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 48 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 48 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,

for: Prof Fred Were,
Chairperson; SU-IERC

Appendix IV: Questionnaire

Dear Respondent,

The current study is part of a study for the Master of Business Management in Healthcare Management at Strathmore University. It seeks to collect data on 'factors influencing home-based care in Kenya'. You are kindly requested to participate in this voluntary study, and should you wish to withdraw at any point and time during the study, then you may do so. Your feedback was treated with the utmost confidentiality.

Thanks in advance for participating in the study.

Instructions: Please tick (✓) in the boxes given, or fill in the blanks given.

SECTION A: Demographic Data

1. Please indicate your gender?

Male () Female ()

2. What is your highest level of education?

Diploma () Bachelor's degree ()

Master's () Ph.D. () Other.....

3. How long have you been practicing as a home-based care worker?

0-3 years () 4-7years () 8 years and above ()

SECTION B: Legal factors *(Tick in the appropriate box)*

4. To what extent do the following legal factors affect the provision of home-based care i

5. What other legal factors affect the provision of home-based care in Kenya?

.....
.....
.....

SECTION C: Socio-economic factors (*Tick in the appropriate box*)

6. To what extent do the following socio-economic factors affect the provision of home-based care

7. What other socio-economic factors affect the provision of home-based care in Kenya?

.....
.....
.....

SECTION D: Demographic factors (*Tick in the appropriate box*)

8. What other demographic factors affect the provision of home-based care in Kenya?

.....
.....
.....

SECTION F: Home-Based Care (*Tick in the appropriate box*)

9. To what extent do you agree with the following as characteristics of ideal home-based care?

	Statement	Very large extent	Large Extent	Small Extent	No Extent
a)	Enhances quality of care				
b)	Enhances health status				
c)	There are enough resources available				
d)	Improved access to home-based care				

10. Kindly indicate any other point you may have on ideal home-based care.

.....

.....

.....



**Appendix V: List of Home-Based Care F
Facility**

- 1) Go Care
- 2) Avenue homecare
- 3) Heart of Hope
- 4) Pinnacle
- 5) Roseanne
- 6) Big heart
- 7) Zoya homecare
- 8) Helping hands
- 9) ScLife Care

