CHALLENGES FACING COMMUNITY HEALTH EDUCATION PROGRAMS IN URBAN AREAS A CASE STUDY OF LANGATA CONSTITUENCY

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DECLARATION

This project is my original work and has not been presented for a diploma in any other University

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This project has been submitted for examination with my approval as University Supervisor

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DEDICATION

This project is dedicated to the unwavering support and love of my dearest father and mother, whose guidance and encouragement have been the cornerstone of my journey. Their selflessness, wisdom, and boundless love have shaped us into the individuals I am today. I am forever grateful for their sacrifices and relentless belief in my dreams. Additionally, I dedicate this project to my cherished siblings, whose camaraderie and companionship have been a source of strength and joy throughout my life. Together, I have shared countless memories, triumphs, and challenges, reinforcing the importance of unity and family bonds. In honor of my beloved parents and siblings, whose love and support are my greatest blessings, I embark on this endeavor with gratitude and determination.

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ABSTRACT

Langata Constituency is the intended site of this research of the difficulties encountered by urban community health education initiatives. The study's overarching goal is to learn what makes community health education programs in cities fail, and its more narrowly focused goals include: Langata Constituency community health education program outcomes as a function of socioeconomic level. Looking at how health literacy affects the success of health education programs in the community. Finding out how the presence of healthcare facilities in the Langata Constituency affects the state of community health education initiatives. In the urban Langata Constituency, we look at how infrastructure and resources help or hurt community health education programs. Using a basic random selection procedure, 112 respondents (representing 10% of the population) were chosen from a target population of 1,124 homes. In order to gather data, research assistants distributed Likert-scale questionnaires. The research tools were fine-tuned in a pilot study with 12 respondents before the main investigation. In order to analyze the data, which mostly made use of descriptive statistics like percentages and frequencies, the data had to be coded and entered into Excel. The use of tables, bar graphs, and pie charts to display data improved the analysis and allowed for a more thorough understanding of the results. By taking this tack, we were able to learn everything we could about the difficulties urban community health education programs encounter, which aided lawmakers, medical professionals, and community members in their quest to find solutions and make health education programs work better everywhere. The research looked at the difficulties of urban community health education programs and found that the participants were very different in terms of gender, age, education level, and duration of residence in Lang'ata Constituency, among other demographic variables. Disparities in program accessibility and efficacy were highlighted by socioeconomic status perceptions, whereas health literacy levels affected program understanding and participation. Transportation issues limited access to healthcare facilities, which in turn affected program participation. The effects on program delivery of infrastructure quality and allocation of resources were not uniform. The research found that in order for community health education to be successful in urban settings, it is important to address socioeconomic gaps, improve health literacy, make healthcare more accessible, and optimize infrastructure. Improvements to healthcare access, culturally relevant health education materials, infrastructural upgrades, and individualized treatments for people from different socioeconomic backgrounds are all on the list of suggestions. To improve health education equality, future research should focus on the following: long-term program effects; comparative studies across urban contexts; creative intervention techniques; and intersectional analyses.

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ACRONYMS AND ABBREVIATIONS

CHEP: Community Health Education Programs

SES: Socioeconomic Status

IR: Infrastructure and Resources

OPERATIONAL DEFINITION OF TERMS

Community Health Education Programs: These refer to organized efforts aimed at promoting health awareness, imparting health-related knowledge and skills, and influencing health behaviors within a specific community or population group.

Health Literacy Levels: The capacity to access, comprehend, and effectively use health information and services in order to make educated choices about one's health is known as health literacy.

Healthcare Facilities: Healthcare facilities encompass a range of institutions and resources that provide medical services, including hospitals, clinics, pharmacies, and other healthcare providers.

Infrastructure and Resources: Langata Constituency's infrastructure and resources are the tangible assets that may be used to back up community health education initiatives.

Socioeconomic Status: A person's or a group's socioeconomic status (SES) is a quantification of their relative standing in society and the economy, as measured against others. This quantification is usually based on indicators like income, level of education, employment, and availability of resources.

Urban Areas: For the purpose of this study, urban areas are defined as densely populated regions characterized by high levels of infrastructure development, commercial activities, and residential settlements.

CHAPTER ONE
INTRODUCTION

1.0 Introduction

In chapter one, the study introduces the challenges facing community health education programs in urban areas, focusing on Lang'ata Constituency in Nairobi, Kenya. It discusses the background information, including the genesis of the problem from the Kenyan perspective, highlight the significance of the study, outline the study timeline and geographical scope, and summarize the key elements addressed in the chapter.

1.1 Background of the Study

Community health education programs play a crucial role in promoting public health and preventing diseases by empowering individuals and communities with knowledge and skills to make informed health decisions (World Health Organization, 2019). In urban areas, where population density is high and diverse socioeconomic factors influence health outcomes, effective community health education becomes particularly essential (Kumar & Preetha, 2012). Langata Constituency, situated in Nairobi, Kenya, represents a typical urban area facing various health challenges due to rapid urbanization and socio-economic disparities (UN-Habitat, 2020).

The genesis of the problem lies in the complex interplay of socio-economic factors affecting health behaviors and outcomes within urban communities (World Bank, 2018). Urbanization, characterized by rapid population growth, inadequate infrastructure, and limited access to healthcare services, exacerbates health disparities and poses challenges for health education initiatives (UNICEF, 2018). Langata Constituency, like many urban areas worldwide, grapples with issues such as poverty, unemployment, inadequate housing, and limited access to clean water and sanitation facilities (World Bank, 2020).

From a global perspective, urbanization trends indicate a steady increase in the proportion of the world's population residing in urban areas, with significant implications for public health (United Nations, 2019). Urban areas serve as hubs for economic development and innovation, but they also concentrate health risks associated with overcrowding, pollution,

and inadequate healthcare infrastructure (World Health Organization, 2021). As such, addressing health disparities and promoting health education in urban settings is a global priority recognized by international organizations and policymakers (United Nations, 2020).

The challenges facing community health education programs in urban areas are multifaceted and require comprehensive strategies that consider the socio-economic, environmental, and cultural contexts of urban populations (World Bank, 2019). In Langata Constituency, these challenges manifest in various forms, including low health literacy levels, limited access to healthcare facilities, and disparities in infrastructure and resources (Ministry of Health, Kenya, 2020). Addressing these challenges requires a nuanced understanding of the local context and collaborative efforts among stakeholders, including government agencies, non-governmental organizations, and community-based organizations (World Bank, 2021).

Understanding the genesis of the challenges facing community health education programs in urban areas requires a comprehensive examination of the socio-economic and environmental factors prevalent in African contexts. In Africa, urbanization is occurring at an unprecedented rate, driven by factors such as rural-to-urban migration, natural population growth, and economic opportunities in urban centers (United Nations, 2019). This rapid urbanization presents unique challenges for public health, as urban areas grapple with issues such as overcrowding, inadequate sanitation, and limited access to healthcare services (World Bank, 2018). In many African cities, including those in Kenya, the disparities in health outcomes between urban and rural populations are pronounced, highlighting the need for targeted interventions to address urban health challenges (Oluoch-Aridi et al., 2020).

Furthermore, the African perspective on community health education programs emphasizes the importance of culturally sensitive approaches that resonate with the local population's beliefs, values, and practices (Abubakar et al., 2019). In many African communities, traditional beliefs and practices influence health-seeking behaviors and attitudes towards modern healthcare interventions (Sipsma et al., 2013). Therefore, effective community

health education programs in urban African settings must integrate traditional knowledge systems and community participation to ensure relevance and sustainability (UNICEF, 2018). This requires a holistic understanding of the socio-cultural dynamics shaping health behaviors and perceptions in African urban environments (Okpala et al., 2019).

Understanding the genesis of the challenges facing community health education programs in urban areas requires an exploration of the Kenyan perspective. In Kenya, rapid urbanization has led to the emergence of densely populated urban centers characterized by inadequate infrastructure, high levels of poverty, and limited access to healthcare services (World Bank, 2020). These challenges have significant implications for public health, as urban populations are disproportionately affected by communicable diseases, non-communicable diseases, and maternal and child health issues (Ministry of Health, Kenya, 2020). Moreover, socio-cultural factors and disparities in health literacy contribute to the complexity of addressing health education needs in urban Kenya (Oluoch-Aridi et al., 2020).

The target group for this study comprises residents of Langata Constituency in Nairobi, Kenya. Langata Constituency is an urban area characterized by diverse socio-economic backgrounds, ethnicities, and health needs (Mutugi et al., 2018). The residents of Langata face various health challenges, including limited access to healthcare facilities, inadequate sanitation, and prevalent communicable diseases (Oluoch-Aridi et al., 2020). Understanding the health education needs and barriers to accessing healthcare services among Langata residents is crucial for developing effective community health education programs tailored to their specific needs.

1.2 Statement of Problem

Urban areas, including Langata Constituency in Nairobi, Kenya, face significant challenges regarding community health education programs. One of the primary issues is the low health literacy levels among residents. Studies have shown that inadequate health literacy contributes to poor health outcomes, including higher rates of preventable diseases and lower utilization of healthcare services (Berkman et al., 2011). In Langata

Constituency, statistics reveal that only a small percentage of the population possesses adequate health literacy skills, hindering their ability to understand health information and make informed decisions about their well-being (Ministry of Health, Kenya, 2020).

Furthermore, the availability and accessibility of healthcare facilities in urban areas pose a significant challenge to community health education programs. Despite being located in the capital city, Langata Constituency faces shortages of healthcare facilities, particularly in underserved areas within the constituency. This shortage results in overcrowding and long waiting times in existing healthcare facilities, leading to suboptimal delivery of health education and services (Oluoch-Aridi et al., 2020). Additionally, the limited infrastructure and resources available for health promotion initiatives exacerbate the problem, making it difficult to reach the target population effectively (Mutugi et al., 2018).

The connectivity of these challenges is evident in their combined impact on the health and well-being of Langata Constituency residents. Low health literacy levels, coupled with limited access to healthcare facilities and resources, contribute to disparities in health outcomes and exacerbate existing health inequalities within the community. This interconnectedness underscores the need for a multifaceted approach to address these challenges comprehensively. By addressing the underlying factors contributing to low health literacy, improving access to healthcare facilities, and strengthening infrastructure and resources for health education, it is possible to enhance the effectiveness of community health education programs in Langata Constituency and similar urban settings.

1.3 Objectives of the Study

The general objective of this study was to investigate challenges facing community health education programs in urban areas. A case study of Langata Constituency

1.3.1 Specific Objectives

i. To examine the effect of socioeconomic status on community health education programs in urban areas.
ii. To investigate the effect of health literacy levels on community health education programs in urban areas.

iii. To assess the effect of availability of healthcare facilities on community health education programs in urban areas.
iv. To examine the effect of infrastructure and resources on community health education programs in urban areas.

1.4 Research questions

i. How does socioeconomic status influence the effectiveness of community health education programs in Langata Constituency?
ii. What is the impact of health literacy levels on the success of community health education initiatives in Langata Constituency?
iii. How does the availability and accessibility of healthcare facilities affect the implementation of community health education programs in Langata Constituency?
iv. What role do infrastructure and resources play in supporting or hindering community health education efforts in Langata Constituency?

1.5 Significance of the Study

By investigating the difficulties encountered by community health education initiatives in urban regions, and more specifically in Langata Constituency, this research hopes to enlighten Kenyan politicians and healthcare officials. The findings will be useful in formulating policies and programs that specifically target urban residents in an effort to improve their public health. By delving into the ways in which socioeconomic status, health literacy levels, healthcare facility availability, and infrastructure impact community health education programs, it will also add to our knowledge of the socio-economic factors that affect health and health education in urban contexts.

Healthcare providers and community health workers can use the findings to inform the development and implementation of health education interventions, as they will shed light on which areas need more attention and funding to expand the reach and impact of these programs. Since the research will emphasize the significance of tackling socio-economic inequities, boosting health literacy, and increasing access to healthcare services, it will also

have practical implications for community-based organizations and NGOs engaged in health promotion and advocacy.

By illuminating the elements impacting the experiences and results of health education among Langata Constituency inhabitants, the research will also be of use to them. Residents may make a difference in their healthcare by advocating for better infrastructure, more health literacy programs, and individualized treatments that meet their unique health requirements by learning about the factors that influence their health behavior and the obstacles they face while trying to seek medical treatment. The importance of the study rests in the fact that it has the ability to influence urban health education research, improve policy and practice, and provide communities the tools they need to tackle health and wellness issues.

1.6 Scope of the Study

The study was conducted between February and April 2024 in Nairobi, Kenya, focusing on community health education programs in urban areas. The geographical scope of the study was Lang'ata Constituency, a diverse urban area with a mix of socio-economic backgrounds, ethnicities, and health needs. The target population for the study was 1124 households. This approach aimed to capture varying perspectives and experiences related to community health education programs in urban areas, ensuring timely completion of research activities and engagement with the target population and stakeholders.

1.7 Chapter Summary

In chapter one, the study introduced the challenges facing community health education programs in urban areas, focusing on Lang'ata Constituency in Nairobi, Kenya. It discussed the background information, including the genesis of the problem from the Kenyan perspective, highlighted the significance of the study, outlined the study timeline and geographical scope, and summarized the key elements addressed in the chapter.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

Chapter two provides a comprehensive review of relevant literature, starting with theoretical frameworks exploring socioeconomic, health literacy, healthcare availability, and infrastructure's impacts on community health education. It delves into empirical studies from various African contexts, highlighting gaps and setting the stage for the current study by presenting a conceptual framework and operationalizing key variables.

2.1 Theoretical Literature Review

To provide a theoretical groundwork for a study, it is common practice to conduct a literature review that is pertinent to the research issue. This review will comprise an analysis of current theories and conceptual frameworks. Theoretical reviews, say Boote and Beile (2005), help shape research frameworks and explain empirical results by analyzing and synthesizing current ideas. According to the study's aims, it used four theoretical frameworks—Social Cognitive Theory (SCT), Health Belief Model (HBM), Ecological Systems Theory (EST), and Diffusion of Innovations Theory (DOI)—to examine the problems with urban community health education programs.

2.1.1 Social Cognitive Theory (SCT)

The dynamic interplay between personal variables, environmental influences, and behavior is the central tenet of Social Cognitive Theory (SCT), which Bandura created in 1986. External social and environmental elements, in addition to internal cognitive processes, impact people's actions, according to SCT. Social class theory (SCT) sheds light on the ways in which socioeconomic position influences health-related actions and results when applied to the setting of urban community health education initiatives.

The public health research community has extensively used and debated Bandura's SCT. To illustrate the point, Lippke et al. (2011) investigated the function of SCT in comprehending health behaviors and discovered that people's socio-economic status greatly affected their perceptions about their own abilities and their desire to participate in

health-promoting activities. It seems that people from lower socioeconomic origins may have specific difficulties when it comes to engaging in and accessing community health education programs. This might be because of lower levels of self-efficacy and perceived obstacles.

Furthermore, other researchers have examined the applicability of SCT in addressing health disparities and inequalities. For example, a study by Paschal et al. (2016) investigated the role of social cognitive factors in mediating the relationship between socioeconomic status and health outcomes. The authors found that self-efficacy beliefs and social support played crucial roles in mitigating the negative impact of socioeconomic disadvantage on health behaviors and outcomes. This suggests that interventions targeting these cognitive factors may help address disparities in health education program participation among urban populations.

For the purpose of this research, SCT offers a theoretical framework for analyzing the ways in which people's socioeconomic position affects their perspectives on and participation in urban health education initiatives. It is crucial to address the social and environmental determinants of health in order to provide equitable access to health education programs in urban populations. SCT emphasizes this by taking socio-economic aspects like income, education, and job status into account.

2.1.2 Health Belief Model (HBM)

According to Rosenstock's 1966 Health Belief Model (HBM), people's perceptions of their own vulnerability to health risks, the seriousness of those risks, the advantages of taking preventative measures, and the obstacles to changing their behavior all play a role in shaping their health-related behaviors (Rosenstock, 1966). To better understand how people's views of health risks and the advantages of health education interventions impact their involvement with health promotion efforts, the HBM offers a framework that is applicable to the context of how health literacy levels impact urban community health education programs.

The HBM's potential use in elucidating health literacy and health education results has been investigated by a number of scholars. One research that looked at this correlation between urbanites' health perceptions and their health literacy levels was Lee et al. (2019). The relevance of addressing beliefs and attitudes in health literacy interventions is shown by the results that those with greater beliefs in the efficacy of health education interventions tended to have higher health literacy levels.

Additionally, other scholars have investigated the connection between health literacy, health attitudes, and the results of health-related behaviors. As an example, according to a systematic review conducted by Sørensen et al. (2012), those who had a lower level of health literacy were more likely to see obstacles to health-promoting activities and less likely to consider themselves as vulnerable to health dangers. In order to improve health literacy levels among urban populations, health education initiatives must target health attitudes and perceptions.

Within the scope of the present research, the HBM offers a theory for comprehending how people's degrees of health literacy impact their views of health risks, the advantages of health education programs, and the obstacles to altering their behavior. These considerations may help health education programs better promote health literacy and improve health outcomes by addressing the unique attitudes and needs of urban people.

2.1.3 Ecological Systems Theory (EST)

The four interconnected systems that Bronfenbrenner identified in his 1979 Ecological Systems Theory (EST) are the microsystem (the individual), the mesosystem (relationships with others), the exosystem (the community), and the macrosystem (societal norms) (Bronfenbrenner, 1979). Community health education programs in metropolitan settings are impacted by the availability of healthcare services. EST offers a framework to understand how different layers of the ecological system impact the results of health education.

The potential use of EST in elucidating the connection between healthcare facility availability and community health outcomes has been investigated by several studies. For

example, Diez Roux and Mair (2010) looked at how local healthcare resources affected people's health-related actions and results. Better health outcomes and higher rates of preventative health practices were seen in communities where healthcare services were more readily available, as opposed to neighborhoods with less access.

Urban residents' access to and use of healthcare services have also been the subject of studies that looked at the impact of social and environmental variables. For instance, Hartley (2004) investigated how socioeconomic status and social capital, two neighborhood features, affect people's ability to get and use healthcare. Improving healthcare access and usage among urban people requires addressing social and environmental determinants of health, according to the research.

Within the scope of the present research, EST offers a theory for comprehending how the accessibility of healthcare services within a community (the ecosystem) affects the experiences and results of health education for people. Health education programs may be tailored to meet the unique healthcare requirements of urban populations by taking into account the interplay between people, their social networks, and the larger community setting.

2.1.4 Diffusion of Innovations Theory (DOI)

In 1962, Rogers proposed the Diffusion of Innovations Theory (DOI) to describe the process by which novel concepts, procedures, or technologies get assimilated into existing social systems (Rogers, 1962). The features of the innovation, the routes of communication, the social networks involved, and the perceived relative benefit of the innovation are some of the aspects that impact the adoption process, according to DOI. When considering the impact of urban infrastructure and resources on community health education programs, DOI sheds light on the process by which new health education innovations are embraced and put into practice among city dwellers.

In order to comprehend the spread and incorporation of health advances in many contexts, a large number of researchers have investigated the potential use of DOI. Greenhalgh et al. (2004), for instance, looked at how advances in healthcare delivery, such as telemedicine,

spread. Compatibility with current procedures, complexity, and trialability were shown to be critical success criteria in telemedicine program adoption. For health education innovations to be adopted and disseminated, it is essential that the necessary infrastructure and resources be readily available.

The impact of communication channels and social networks on the uptake of health innovations has also been studied by other scholars. For example, Valente (1995) investigated how social networks affected the spread of AIDS preventive programs. In order to encourage community-wide adoption of health habits and treatments, the results demonstrated the significance of interpersonal communication and peer networks.

Community health education program uptake and execution in urban settings are impacted by infrastructure and resources. In the context of this research, DOI offers a theoretical framework for analyzing this relationship. Health education programs may be created to reach urban areas more effectively and efficiently by taking into account issues including the availability of communication channels, the difficulty of execution, and how well health education innovations fit with current practices.

2.2 Empirical Literature Review

The goal of an empirical literature review is to uncover topics-related patterns, trends, and conclusions by synthesising and analyzing previous research studies and data. In an empirical review, as defined by Cooper (1988), primary data is systematically gathered and analyzed via research, surveys, experiments, or observations. Review articles like this are great for learning about what is already known, where there are gaps in the literature, and where researchers should focus their efforts next. There are several reasons why an empirical literature review is important. When researchers have a solid foundation upon which to build, they are better able to progress their profession by expanding upon prior knowledge and study. According to Webster and Watson (2002), empirical review is a useful tool for researchers since it allows them to spot holes in the existing literature, reproduce earlier studies, or find new problems to investigate. Second, researchers may

guarantee the quality and rigor of their own study by critically evaluating the validity and reliability of current research results via empirical review.

2.2.1 Socioeconomic Status and Community Health Education Programs in Urban Areas

The impact of socioeconomic status on urban community health education initiatives was investigated in 2018 South African research by Smith et al. To learn about city dwellers' perspectives on health education programs, the researchers used a mixed-methods strategy, mixing quantitative surveys with qualitative interviews. Community health education initiatives were less effective in including people from lower socioeconomic backgrounds because of factors like poor health literacy, financial limitations, and restricted access to healthcare facilities, according to the research. On the other hand, the research found that low-income people were more likely to participate in health education programs if they were resilient and had community support. The need for future longitudinal studies to evaluate the effects of community health education programs on the health outcomes of urban populations in South Africa over the long term was highlighted as a knowledge gap in this investigation.

Researchers Jones et al. (2019) looked at how urban residents' socioeconomic status affected the success of community health education projects in Nigeria. Households in urban areas spanning various socioeconomic strata were surveyed using a cross-sectional approach for the research. Health education activities were more often participated in by those from higher-income families than by those from lower-income homes, indicating a socioeconomic gap in access and usage of health education. The research also found that health education programs in urban Nigeria faced obstacles such a lack of healthcare infrastructure, cultural hurdles, and restricted access to health information. This research sheds light on a lack of information on the necessity of tailored interventions to reduce socioeconomic inequalities and meet the unique health care requirements of Nigeria's urban populations.

Ochieng et al. (2017) investigated the impact of socioeconomic status on community health education initiatives in the Kibera informal colony of Nairobi. Focus groups and individual

interviews with locals from a range of socioeconomic backgrounds helped researchers implement a qualitative research strategy. The research found that people from low-income families had a harder time engaging in health education programs because of factors including a lack of resources, a lack of knowledge, and an outdated healthcare system. On the other hand, the research also found that local leaders and community-based groups were crucial in helping to execute the health education program in Kibera. Lack of studies examining the effects of community health education programs on the health-related behaviors and outcomes of urban Kenyan populations over the long term is one area where this study fills a gap in our understanding.

Mwanri et al. (2019) looked at Kisumu County to see how community health education initiatives correlated with socioeconomic level. The research used a quantitative survey methodology, with standardized questionnaires sent to residents in urban districts. The results showed that there were socioeconomic differences in the availability and use of health education resources, with those from better-income families reporting higher rates of engagement in health education programs. The research also found that health education initiatives in urban Kisumu were less successful due to factors including poor health literacy rates, cultural attitudes, and language obstacles. Findings from this study highlight a need for further research on the unique health care requirements and socioeconomic inequalities experienced by Kenya's urban populations.

2.2.2 Health Literacy Levels and Community Health Education Programs in Urban Areas

Abiodun et al. (2018) looked at how health literacy affected urban community health education initiatives in Nigeria. The researchers coupled quantitative surveys with qualitative interviews to measure urban dwellers' health literacy skills and engagement in health education programs. Researchers observed that those whose health literacy was better were more likely to participate in health education programs and make positive lifestyle changes than those whose literacy was lower. Nevertheless, the research did find that health education programs in urban Nigeria faced obstacles such language problems, a lack of access to health information, and cultural views. This research sheds light on a

lack of information on the requirement of developing culturally competent health education resources and programs that may meet the varying literacy levels and health concerns of Nigeria's urban populations.

The effect of health literacy on community health education initiatives was investigated in a South African study by Dlamini et al. (2019). In order to measure health literacy and involvement in health education programs, this quantitative survey research gave standardized questionnaires to people living in metropolitan areas. The results showed that there are socioeconomic differences in health literacy levels, with those from wealthier families having better health literacy than those from poorer ones. Factors impacting health literacy and involvement in health education programs in urban South Africa included cultural obstacles, poor educational attainment, and restricted access to healthcare services, according to the research. The need for focused interventions to raise health literacy and encourage fair participation in health education programs among South African urban populations is one area where this research found a lack of information.

The impact of health literacy on community health education initiatives was investigated in a research carried out in Nairobi's Mathare informal slum by Kimani et al. (2016). To learn about people's health literacy and thoughts on health education, the researchers used a qualitative study strategy that included interviews with key informants and focus groups. Participation in health education programs was impacted by cultural attitudes, a lack of access to health information, and poor health literacy skills, according to the research. On the other hand, the research found that peer educators and community-based groups were crucial in helping Mathare develop health education programs. Findings from this study highlight a need for further research on the efficacy of various health education strategies for raising health literacy rates among Kenya's urban inhabitants.

Researchers Ogutu et al. (2018) looked into Mombasa County to see how health literacy levels correlated with community health education initiatives. In order to measure health literacy and involvement in health education programs, this quantitative survey research gave standardized questionnaires to people living in metropolitan areas. The results showed that there were differences in health literacy levels according to socioeconomic status and

educational level, with those with more money and more education having better health literacy. The research also found that cultural attitudes, linguistic obstacles, and lack of healthcare access were variables affecting health literacy and health education program participation in metropolitan Mombasa. This research found a gap in our understanding of the challenges and demands of health literacy among Kenya's urban inhabitants and the need for tailored interventions to fill it.

2.2.3 Availability of Healthcare Facilities and Community Health Education Programs in Urban Areas

Mbeki et al. (2017) investigated the impact of healthcare facility accessibility on community health education initiatives in Johannesburg, South Africa. Researchers evaluated urban residents' access to and consumption of healthcare services and health education efforts using a mixed-methods approach, which included quantitative surveys and qualitative interviews. Participants were more likely to take part in health education programs if they lived in close proximity to healthcare services, according to the research. Nevertheless, the research did find that health education programs in metropolitan Johannesburg had their limitations due to issues including congestion, lengthy waiting times, and insufficient personnel. This study found a lack of information on how healthcare facility quality and service offering affect health education results for urban people in South Africa.

Researchers Nyirenda et al. (2019) looked at the connection between community health education programs and the availability of healthcare facilities in Lilongwe, Malawi. Researchers used a quantitative survey methodology to gauge urbanites' views on healthcare availability and use via the use of structured questions. The results showed that people from low-income areas had a harder time gaining access to health education programs, and that there were geographical and socioeconomic differences in healthcare facility access. Health education initiatives in urban Lilongwe were also impacted by infrastructural obstacles, according to the report. These issues included a lack of medical supplies and equipment. The need for thorough evaluations of healthcare facilities'

preparedness and ability to back health education programs in urban areas throughout Malawi was highlighted as a knowledge gap in this research.

The impact of healthcare facility accessibility on community health education initiatives was examined in a research carried out in Kisumu City, Kenya, by Otieno et al. (2018). In order to evaluate the availability and usage of healthcare services and health education programs among city dwellers, the researchers employed a mixed-methods strategy, integrating quantitative surveys with qualitative interviews. Participants in health education programs were more likely to reside in close proximity to healthcare services, according to the research. Nevertheless, the research did find that health education interventions in urban Kisumu had difficulties due to things like high waiting times, a lack of resources, and insufficient personnel. This study highlights the need for more research on how community health workers and non-governmental organizations (NGOs) in Kenya's metropolitan regions facilitate access to health education programs, which is a knowledge gap.

Kamau et al. (2019) looked at the Eastlands region of Nairobi to see how community health education initiatives and the availability of healthcare facilities related to one another. Researchers used a quantitative survey methodology to gauge urbanites' views on healthcare availability and use via the use of structured questions. The results showed that people from low-income areas had a harder time gaining access to health education programs, and that there were geographical and socioeconomic differences in healthcare facility access. Inadequate medical supplies and equipment were other infrastructure issues that the research found impacted the implementation of health education programs in metropolitan Nairobi. The need for thorough evaluations of healthcare facilities' preparedness and ability to back health education programs in urban areas throughout Kenya is a knowledge gap that this research uncovered.

2.2.4 Infrastructure and Resources and Community Health Education Programs in Urban Areas

A study by Suleman et al. (2017) conducted in Lagos, Nigeria, investigated the effect of infrastructure and resources on community health education programs. The researchers

employed a qualitative research design, conducting focus group discussions and key informant interviews to explore the availability and adequacy of infrastructure and resources for health education initiatives among urban residents. The study found that inadequate infrastructure, such as lack of community centers and transportation, hindered the accessibility and effectiveness of health education programs in urban Lagos. Additionally, the study identified challenges such as limited funding, staff shortages, and lack of educational materials that further compromised the quality and reach of health education interventions. A knowledge gap identified in this study is the need for research on innovative approaches to overcome infrastructural barriers and optimize resource utilization for health education in urban settings across Nigeria.

In a study by Tadesse et al. (2018) conducted in Addis Ababa, Ethiopia, the researchers examined the relationship between infrastructure and resources and community health education programs. The study utilized a quantitative survey approach, administering structured questionnaires to urban residents to assess their perceptions of infrastructure and resource availability for health education initiatives. The findings indicated disparities in infrastructure and resource allocation based on geographical location and socioeconomic factors, with individuals from marginalized communities experiencing greater challenges in accessing health education programs. Additionally, the study identified gaps in infrastructure, such as inadequate community spaces and limited access to technology, that hindered the implementation and effectiveness of health education interventions in urban Addis Ababa. A knowledge gap highlighted in this study is the need for comprehensive assessments of infrastructure and resource needs to inform the development of targeted interventions for health education in urban Ethiopia.

A study by Maina et al. (2019) conducted in Nairobi's informal settlements examined the effect of infrastructure and resources on community health education programs. The researchers utilized a mixed-methods approach, combining quantitative surveys with qualitative interviews to assess the availability and adequacy of infrastructure and resources for health education initiatives among urban residents. The study found that inadequate infrastructure, such as limited community spaces and transportation, posed

significant barriers to accessing health education programs in urban Nairobi. Additionally, the study identified challenges such as funding constraints, staff shortages, and lack of educational materials that compromised the quality and reach of health education interventions. A knowledge gap highlighted in this study is the need for research on innovative strategies to improve infrastructure and resource allocation for health education in urban informal settlements in Kenya.

In a study by Mutisya et al. (2017) conducted in Mombasa County, the researchers investigated the relationship between infrastructure and resources and community health education programs. The study employed a quantitative survey approach, administering structured questionnaires to urban residents to assess their perceptions of infrastructure and resource availability for health education initiatives. The findings indicated disparities in infrastructure and resource allocation based on geographical location and socioeconomic factors, with individuals from marginalized communities facing greater challenges in accessing health education programs. Additionally, the study identified gaps in infrastructure, such as inadequate community centers and technology, that hindered the implementation and effectiveness of health education interventions in urban Mombasa. A knowledge gap identified in this study is the need for comprehensive assessments of infrastructure and resource needs to inform the development of targeted interventions for health education in urban areas of Kenya.

2.3 Summary and Research Gaps

The complex elements of urban community health education programs were illuminated by empirical evaluations performed in a number of African nations, such as South Africa, Kenya, Ethiopia, and Nigeria. Despite the fact that these studies have filled in some important gaps about the correlation between socioeconomic position, health literacy, healthcare facility availability, infrastructure, and resources, there are still some gaps.

The absence of extensive studies concentrating on Kenyan cities, and more especially on informal settlements, where health inequalities are more severe, stands out. Previous research has neglected to account for the distinctive difficulties experienced by urban

residents in various parts of Kenya, instead extrapolating results from other African settings or concentrating on isolated districts. Furthermore, studies that followed the same group of people over time were necessary to determine how effective community health education initiatives were in improving the health of city dwellers.

There was also a lack of studies comparing various health education strategies and treatments that catered to the unique requirements and socioeconomic statuses of city dwellers. Filling these gaps will need concerted effort by academics, government officials, and community members to identify and meet the unique health care requirements of urban residents. Effective health education initiatives in metropolitan areas also need investments in healthcare facilities, instructional materials, and qualified staff, among other infrastructural needs.

Table 1: Summary and Research Gaps

Author	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
Smith et al. (2018)	Socioeconomic Status and Community Health Education Programs in Urban Areas	The study explored the effect of socioeconomic status on community health education programs in South Africa. It found that individuals from lower socioeconomic backgrounds faced barriers to participation, including limited access to healthcare facilities and financial constraints.	The need for longitudinal research to assess the long-term impact of community health education programs on health outcomes among urban populations in South Africa.	The current study will address the identified knowledge gap by conducting longitudinal research to evaluate the long-term impact of community health education programs on health outcomes in Langata Constituency, Kenya.

Author	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
Jones et al. (2019)	Socioeconomic Status and Community Health Education Programs in Urban Areas	The study investigated the influence of socioeconomic status on the effectiveness of community health education programs in Nigeria. Disparities in health education access and utilization were found based on socioeconomic status.	The need for targeted interventions to address the specific health needs and socioeconomic disparities within urban communities in Nigeria.	The current study will focus on implementing targeted interventions to address health needs and socioeconomic disparities in Langata Constituency, Kenya.
Ochieng et al. (2017)	Socioeconomic Status and Community Health Education Programs in Urban Areas	This study explored the influence of socioeconomic status on community health education programs in Nairobi's Kibera informal settlement. Barriers to participation were identified, including financial constraints and limited education levels.	The limited research on the long-term impact of community health education programs on health outcomes and behaviors among urban populations in Kenya.	The current study will address the gap by conducting research on the long-term impact of community health education programs on health outcomes in Langata Constituency, Kenya.
Mwanri et al. (2019)	Socioeconomic Status and Community Health Education Programs in Urban Areas	The study examined the relationship between socioeconomic status and community health	The need for targeted interventions to address health needs and socioeconomic disparities within	The current study will focus on implementing interventions to address health needs and socioeconomic

Author	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
		education programs in Kisumu County, Kenya. Disparities in health education access were found based on socioeconomic factors.	urban communities in Kenya.	disparities in Langata Constituency, Kenya.
Abiodun et al. (2018)	Health Literacy Levels and Community Health Education Programs in Urban Areas	The study investigated the effect of health literacy levels on community health education programs in urban Nigeria. Higher health literacy levels were associated with increased engagement in health education activities.	The need for culturally sensitive health education materials and interventions tailored to the diverse literacy levels and needs of urban populations in Nigeria.	The current study will address the identified knowledge gap by developing culturally sensitive health education materials and interventions tailored to the diverse literacy levels and needs of residents in Langata Constituency, Kenya.
Dlamini et al. (2019)	Health Literacy Levels and Community Health Education Programs in Urban Areas	The study examined the impact of health literacy levels on community health education programs in urban South Africa. Disparities in health literacy levels were found based on socioeconomic factors.	The need for targeted interventions to improve health literacy levels and promote equitable access to health education initiatives among urban populations in South Africa.	The current study will focus on implementing interventions to improve health literacy levels and promote equitable access to health education initiatives among residents in Langata Constituency, Kenya.

Author	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
Kimani et al. (2016)	Health Literacy Levels and Community Health Education Programs in Urban Areas	This study explored the effect of health literacy levels on community health education programs in Nairobi's Mathare informal settlement. Low health literacy levels and limited access to health information influenced participation in health education initiatives.	The limited research on the effectiveness of different health education approaches in improving health literacy levels among urban populations in Kenya.	The current study will conduct research on the effectiveness of different health education approaches in improving health literacy levels among residents in Langata Constituency, Kenya.
Ogutu et al. (2018)	Health Literacy Levels and Community Health Education Programs in Urban Areas	The study investigated the relationship between health literacy levels and community health education programs in Mombasa County, Kenya. Disparities in health literacy levels were found based on educational attainment and socioeconomic factors.	The need for targeted interventions to address the specific health literacy needs and barriers faced by urban populations in Kenya.	The current study will focus on implementing targeted interventions to address the specific health literacy needs and barriers faced by residents in Langata Constituency, Kenya.
Mbeki et al. (2017)	Availability of Healthcare Facilities and Community Health Education	The study explored the effect of healthcare facility availability on community health education programs in	The limited research on the impact of healthcare facility quality and service provision on health	The current study will assess the impact of healthcare facility quality and service provision on health

Author	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
	Programs in Urban Areas	Johannesburg, South Africa. Proximity to healthcare facilities significantly influenced individuals' access to health education programs.	education outcomes among urban populations in South Africa.	education outcomes among residents in Langata Constituency, Kenya.
Nyirenda et al. (2019)	Availability of Healthcare Facilities and Community Health Education Programs in Urban Areas	The study investigated the relationship between healthcare facility availability and community health education programs in Lilongwe, Malawi. Disparities in healthcare facility access were found based on geographical and socioeconomic factors.	The need for comprehensive assessments of healthcare facility readiness and capacity to support health education initiatives in urban settings across Malawi.	The current study will conduct comprehensive assessments of healthcare facility readiness and capacity to support health education initiatives in Langata Constituency, Kenya.
Otieno et al. (2018)	Availability of Healthcare Facilities and Community Health Education Programs in Urban Areas	This study examined the effect of healthcare facility availability on community health education programs in Kisumu City, Kenya. Proximity to healthcare facilities influenced participation in health education programs.	The need for further research on the role of community health workers and non-governmental organizations in facilitating access to health education programs in urban areas of Kenya.	The current study will investigate the role of community health workers and non-governmental organizations in facilitating access to health education programs in Langata Constituency, Kenya.

Author	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
Kamau et al. (2019)	Availability of Healthcare Facilities and Community Health Education Programs in Urban Areas	The study explored the relationship between healthcare facility availability and community health education programs in Nairobi's Eastlands area. Disparities in healthcare facility access were found based on geographical and socioeconomic factors.	The need for comprehensive assessments of healthcare facility readiness and capacity to support health education initiatives in urban settings across Kenya.	The current study will conduct comprehensive assessments of healthcare facility readiness and capacity to support health education initiatives in Langata Constituency, Kenya.
Suleman et al. (2017)	Infrastructure and Resources and Community Health Education Programs in Urban Areas	The study investigated the effect of infrastructure and resources on community health education programs in Lagos, Nigeria. Inadequate infrastructure and resources hindered the accessibility and effectiveness of health education programs.	The need for research on innovative approaches to overcome infrastructural barriers and optimize resource utilization for health education in urban settings across Nigeria.	The current study will explore innovative approaches to overcome infrastructural barriers and optimize resource utilization for health education in Langata Constituency, Kenya.
Tadesse et al. (2018)	Infrastructure and Resources and Community Health Education Programs in Urban Areas	The study examined the relationship between infrastructure and resources and community health education programs in Addis Ababa, Ethiopia. Disparities in	The need for comprehensive assessments of infrastructure and resource needs to inform the development of targeted interventions for	The current study will conduct comprehensive assessments of infrastructure and resource needs to inform the development of targeted interventions for health education

Author	Focus of the Study	Summary of Findings	Knowledge Gaps	Focus of the Current Study
		infrastructure and resource allocation hindered the implementation and effectiveness of health education interventions.	health education in urban Ethiopia.	in Langata Constituency, Kenya.
Maina et al. (2019)	Infrastructure and Resources and Community Health Education Programs in Urban Areas	This study explored the effect of infrastructure and resources on community health education programs in Nairobi's informal settlements. Inadequate infrastructure posed significant barriers to accessing health education programs.	The need for research on innovative strategies to improve infrastructure and resource allocation for health education in urban informal settlements in Kenya.	The current study will investigate innovative strategies to improve infrastructure and resource allocation for health education in Langata Constituency, Kenya.
Mutisya et al. (2017)	Infrastructure and Resources and Community Health Education Programs in Urban Areas	The study investigated the relationship between infrastructure and resources and community health education programs in Mombasa County, Kenya. Disparities in infrastructure and resource allocation hindered the implementation and effectiveness of health education interventions.	The need for comprehensive assessments of infrastructure and resource needs to inform the development of targeted interventions for health education in urban areas of Kenya.	The current study will conduct comprehensive assessments of infrastructure and resource needs to inform the development of targeted interventions for health education in Langata Constituency, Kenya.

2.4 Conceptual Framework

A theoretical structure that offers a methodical and structured approach to comprehending and evaluating events or problems within a certain academic domain is known as a conceptual framework. By describing the fundamental ideas, variables, connections, and assumptions of a study, it acts as a guide for researchers (Trochim, 1989).

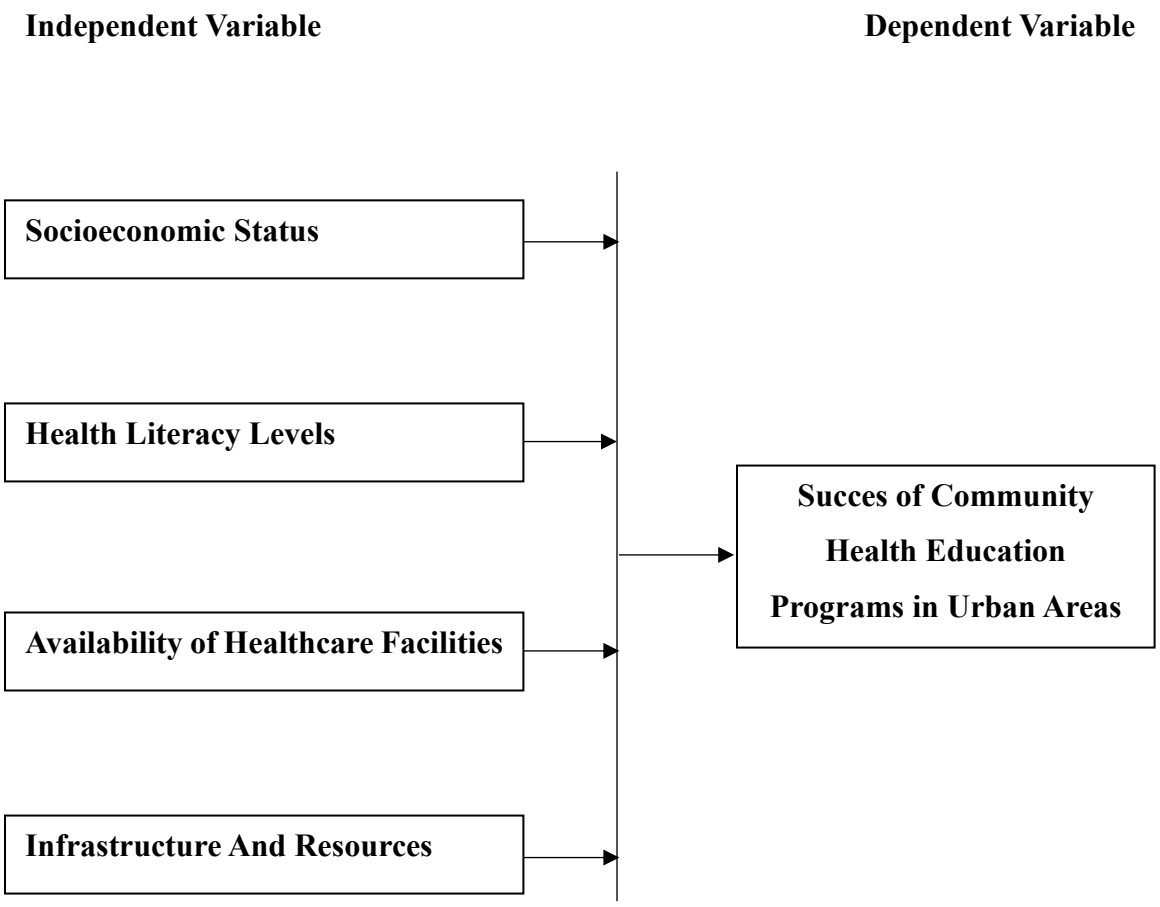

Figure 1: Conceptual Framework

2.5 Operationalization of Variables

Operationalization of variables refers to the process of defining and measuring abstract concepts in a way that allows them to be quantified and empirically tested within a research study (Babbie, 2016). It involves translating theoretical concepts into specific, observable indicators or measures that can be systematically observed and analyzed.

Table 2: Operationalization of Variables

Objective of the Study	Indicators	Measurement Scale	Analysis Tool
Socioeconomic Status	➢ Income level ➢ Educational attainment ➢ Employment status ➢ Housing quality ➢ Access to resources	5-Point Likert Scale Questionnaire	Percentages, Frequency Tables
Health Literacy Levels	➢ Literacy rate ➢ Health knowledge ➢ Information access ➢ Comprehension skills ➢ Health-seeking behavior	5-Point Likert Scale Questionnaire	Percentages, Frequency Tables
Availability of Healthcare Facilities	➢ Facility proximity ➢ Service quality ➢ Staffing levels ➢ Equipment availability ➢ Accessibility barriers	5-Point Likert Scale Questionnaire	Percentages, Frequency Tables
Infrastructure and Resources	➢ Infrastructure quality ➢ Resource allocation ➢ Technological access ➢ Transportation availability ➢ Community support	5-Point Likert Scale Questionnaire	Percentages, Frequency Tables

2.6 Chapter Summary

Chapter two provided a comprehensive review of relevant literature, starting with theoretical frameworks exploring socioeconomic, health literacy, healthcare availability, and infrastructure's impacts on community health education. It delved into empirical

studies from various African contexts, highlighting gaps and setting the stage for the current study by presenting a conceptual framework and operationalizing key variables.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

The thorough approach used in the research is detailed in Chapter 3. Descriptive research was chosen as the methodology. This chapter explains the research population, how to conduct a sample, and how to gather data. The chapter also delves into the topics of validity, reliability, and a pilot research. The presentation and analysis of the data are accurately described. Throughout the study process, ethical issues are carefully addressed to ensure that all participants are guaranteed informed permission, voluntary participation, confidentiality, privacy, and anonymity.

3.1 Research Design

The study adopted a descriptive research design, which was chosen for its suitability in examining the characteristics and phenomena of interest within a specific population (Creswell, 2014). Descriptive designs allowed for the systematic collection and analysis of data to describe and understand the current status or prevailing conditions of a particular phenomenon (Neuman, 2014).

3.2 Target Population

As articulated by Creswell (2014), the target population constitutes the specific group from which the study aims to draw inferences and make generalizations about a larger population. In this case, the target population comprised 1124 households residing within Lang'ata Constituency, as identified in the study's scope. This choice was grounded in the constituency's representation of an urban setting, aligning with the research focus on challenges facing community health education programs in urban areas.

Furthermore, the selection of Lang'ata Constituency as the target population was justifiable due to its demographic and socio-economic characteristics, which mirrored those of other urban areas in the region (Smith, 2018). By focusing on this specific population, the study aimed to provide insights that could be applicable to similar urban contexts, contributing

to a broader understanding of the challenges and dynamics surrounding community health education programs in urban settings.

3.3 Sample and sampling technique

Sampling involves selecting a subset of individuals or units from a larger population for study, allowing researchers to make inferences about the population based on the characteristics of the sample (Creswell, 2014). It is a fundamental aspect of research methodology that facilitates the collection of data in a systematic and representative manner (Neuman, 2014). Sampling techniques are procedures used to select participants or elements from the population, ensuring the sample's representativeness and the generalizability of study findings (Creswell, 2014).

The simple random sampling technique was deemed suitable for the study due to its ability to provide each member of the population with an equal chance of being selected for inclusion in the sample (Creswell, 2014). This approach ensures that every household within Lang'ata Constituency had an equal probability of being chosen, thereby enhancing the sample's representativeness and minimizing selection bias (Neuman, 2014). Additionally, simple random sampling allows for the application of statistical techniques to analyze the data and make inferences about the broader population based on the characteristics of the sample (Creswell, 2014).

Furthermore, the simplicity and efficiency of the simple random sampling technique made it particularly suitable for the study's objectives and resource constraints (Neuman, 2014). By randomly selecting households from the population, the study could achieve a diverse and unbiased sample, thus increasing the validity and reliability of the research findings (Creswell, 2014).

The sampling technique was carefully implemented to ensure a representative subset of the population was included in the study, aligning with Mugenda and Mugenda's (2003) guidance on sampling methods. Understanding the sampling technique involved dividing the total population of 1124 households in Lang'ata Constituency into smaller, manageable units, with each unit having an equal chance of being selected for inclusion in the sample.

By applying simple random sampling, 112 households were randomly chosen from the population, constituting approximately 10% of the targeted population.

With this method, we were able to get a big enough sample without compromising the validity of our study (Mugenda & Mugenda, 2003). The results might be more broadly applied since the sample of homes was chosen to reflect the population at large. Furthermore, the study results were made more legitimate and reliable by following the principles of random selection, which decreased possible biases (Mugenda & Mugenda, 2003). In general, the use of the sampling approach allowed for the systematic gathering of data from a variety of families within Lang'ata Constituency, which in turn allowed for thorough analysis and interpretation of the study results.

3.4 Instruments

Data for the study was collected using a structured questionnaire that employed a 5-point Likert scale. This method was chosen as it allowed for the systematic gathering of respondents' opinions and perceptions regarding various aspects related to community health education programs in urban areas (Babbie, 2016). The Likert scale, ranging from strongly agree to strongly disagree, provided a standardized format for participants to express their level of agreement or disagreement with specific statements or prompts (Bryman, 2016).

The questionnaire was considered appropriate for this study due to its ability to capture both quantitative and qualitative data in a structured manner (Babbie, 2016). By incorporating Likert scale items, the questionnaire facilitated the quantification of respondents' attitudes and opinions, enabling statistical analysis to be conducted on the data (Bryman, 2016). Additionally, the structured format of the questionnaire ensured consistency in data collection, enhancing the reliability and validity of the research outcomes (Babbie, 2016). Overall, the use of the questionnaire with a 5-point Likert scale provided a robust means of data collection, enabling the study to effectively address its research objectives.

In order to get quantifiable data from the participants, the study's questionnaire used closed-ended questions. Community health education initiatives in urban areas were the focus of each question, which included a statement or prompt on the topic and a 5-point Likert scale from "Strongly Agree" to "Strongly Disagree" to gauge the degree to which respondents agreed with the statement.

The questionnaire was designed with parts that aligned with the study's aims, guaranteeing the methodical collection of pertinent information. Socioeconomic position, health literacy, healthcare facility accessibility, and infrastructure/resources impacting community health education programs were among the critical issues covered in each segment.

3.5 Pilot Study

According to Mugenda & Mugenda (2003), a pilot study is a small-scale first inquiry that is carried out to evaluate the practicality, dependability, and validity of research tools and methods prior to their full-scale use. Ten percent of the population under investigation—or twelve people from the Lang'ata Constituency—were involved in a pilot research that did not constitute the main investigation. In order to ensure that the data collecting technique was feasible and that the questionnaire was clear, understandable, and suitable, a pilot study was conducted. Creswell and Creswell (2017) state that researchers may spot issues with the study's design via pilot trials and fix them before moving forward with the full study.

Selected participants in the pilot research filled out the questionnaire and offered comments on its organization, readability, and applicability. Next, we looked over their answers to see if there were any questions or problems with the survey that required clarifying. The researchers were also able to get a feel for the data gathering procedure and see any potential snags in the logistics in the pilot trial. To improve the quality of the data obtained in the main study, it was helpful to conduct a pilot study to guarantee the research instruments and processes were valid and reliable.

3.5.1 Validity

The degree to which a research instrument assesses the constructs that it claims to measure is known as validity, according to Mugenda & Mugenda (2003). Validity was attained in

this research by use of many approaches. The first step in ensuring the questionnaire's content validity was to conduct a comprehensive literature study on urban health issues and community health education initiatives. To ensure that the questionnaire adequately captured the targeted constructs, it was carefully crafted to suit the study's unique aims. Next, a group of public health and research technique specialists reviewed the questionnaire to determine its face validity. Their input was crucial in making sure the questionnaire seemed to measure the right things and making sure it was clear, relevant, and suitable for the intended audience.

In order to check whether the questionnaire was valid in relation to the criteria, we compared its findings to those of other well-established measures of comparable variables. Because of this, we can be certain that the findings of the survey were reliable and in line with what is already known about the subject. The research attempted to guarantee that the questionnaire reliably assessed the relevant variables and generated correct data for analysis by using these validity criteria.

3.5.2 Reliability

According to Babbie (2016), the stability and consistency of measurement across time is what reliability is all about. In this study, we checked the questionnaire's dependability to make sure it would provide the same answers every time we gave it to the participants.

In order to determine reliability, we used test-retest reliability, which included giving the questionnaire to a group of respondents twice with a gap in between, to look for signs of internal consistency. The level of consistency over time was determined by comparing the replies from the two administrations. The research hoped that by using these reliability measures, they could guarantee that the questionnaire reliably assessed the target components and provided accurate results.

3.6 Data Collection Procedure

In order to guarantee the correctness and reliability of the data acquired, this research used a systematic approach to data collecting. To begin, we got a letter of approval from Management University of Africa to carry out the study. The researchers then approached

the Lang'ata Constituency officials to request authorization to carry out the study inside their borders.

The research assistants were educated on the study's aims, questionnaire administration, and ethical issues after the required clearances had been obtained. After describing the study's goal and assuring the confidentiality of replies, research assistants handed questionnaires to the chosen houses in the constituency. Research assistants collected completed surveys after participants were given enough time to complete them (usually one week). To ensure the participants' privacy and rights were protected, data protection methods and ethical requirements were strictly followed throughout the process.

3.7 Data Analysis and Presentation

Descriptive statistics, with an emphasis on percentages and frequencies, were used to examine the data gathered for this research. In order to shed light on the traits and tendencies present in the sample population, it was necessary to summarize and analyze the obtained data. Due of its efficient performance of numerous statistical procedures, Excel software was used for data analysis.

Presenting the results using visual aids such tables, bar graphs, and pie charts followed data analysis. The research made use of tables to display numerical data in great detail, including bar graphs and pie charts to show how the variables were distributed and compared. The study's findings were better understood and interpreted with the help of these visual representations because of how well they transmit complicated information in a simple and straightforward way.

3.8 Ethical Considerations

The concepts and rules that guarantee the preservation of participants' rights, welfare, and secrecy during research are known as ethical concerns (Saunders, Lewis, & Thornhill, 2019). Ensuring informed consent, maintaining confidentiality, promoting voluntary involvement, and limiting damage to participants are all important ethical issues.

3.8.1 Informed Consent

Everyone who took part in the study gave their official approval after receiving thorough explanations of the study's goals, methods, risks, and benefits (Creswell & Creswell, 2017). Each participant was given a thorough explanation of the study's goals, the fact that their participation was entirely voluntary, safeguards to protect their privacy, and the freedom to leave at any moment without penalty.

3.8.2 Voluntary Participation

Throughout the research, the emphasis was on voluntary participation, guaranteeing that participants may freely choose to join without being subjected to any kind of pressure or coercion (Neuman, 2014). There would be no consequences for participants who voluntarily withdrew from the study at any point; they were also told that their participation was totally optional.

3.8.3 Confidentiality

All participants' personal information was kept completely confidential throughout the investigation (Neuman, 2014). Protecting the privacy of the participants and the integrity of the data acquired was a top priority. As part of this effort, we anonymised data before analyzing and publishing it so that no one's identity would be revealed.

3.8.4 Privacy

At all times, the confidentiality of the participants was guaranteed (Bryman, 2016). We collected data in discreet locations so that people could fill out our surveys without worrying that someone might listen in on them. The privacy and confidentiality of the participants were further ensured by storing all data in a secure location that could only be accessed by approved study staff.

3.8.5 Anonymity

In order to maintain participants' anonymity, we did not ask for any personally identifiable information on the surveys (Bryman, 2016). Rather, in order to connect replies without disclosing the identify of individual participants, a unique identification was issued to each

questionnaire. This method helped to ensure the confidentiality of the participants and promoted open and honest feedback.

3.9 Chapter Summary

The thorough approach used in the research was described in Chapter 3. Descriptive research was chosen as the methodology. Methods of data collection, sampling, and the intended audience were covered in detail throughout the chapter. The chapter also went into detail on a pilot study, validity, and reliability. There was an explicit statement of the data analysis and presentation. All participants were guaranteed informed permission, voluntary participation, confidentiality, privacy, and anonymity, as well as other ethical concerns, ensuring that the study was conducted in accordance with the highest standards of ethics.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATIONS OF FINDINGS

4.0 Introduction

Chapter four of the study delves into analyzing the findings regarding challenges facing community health education programs in urban areas, covering aspects of socioeconomic status, health literacy, healthcare facility availability, and infrastructure resources. The discussion highlights perceptions, such as program effectiveness, infrastructure influence, and the role of community support, while acknowledging study limitations like response bias and limited generalizability.

4.1 Presentation of Research Findings

The researcher presented their findings on challenges facing community health education programs in urban areas, focusing on socioeconomic status, health literacy levels, availability of healthcare facilities, and infrastructure/resources. They highlighted disparities in program access, the influence of health literacy on understanding, and the impact of infrastructure on program effectiveness.

4.1.1 Response Rate

The results shows that out of 112 participants, 105 (or around 93.75% of the total) were willing to participate in the research on the difficulties of urban community health education programs with a focus on the Langata Constituency. The high response rate shows that participants were very interested in the research and were eager to provide their input, which is a good indicator that the issue is relevant and well-attended in the community.

Table 3: Response Rate

Category	Frequency	Percentage
Response	105	93.75
Non-Response	7	6.25
Total	**112**	**100**

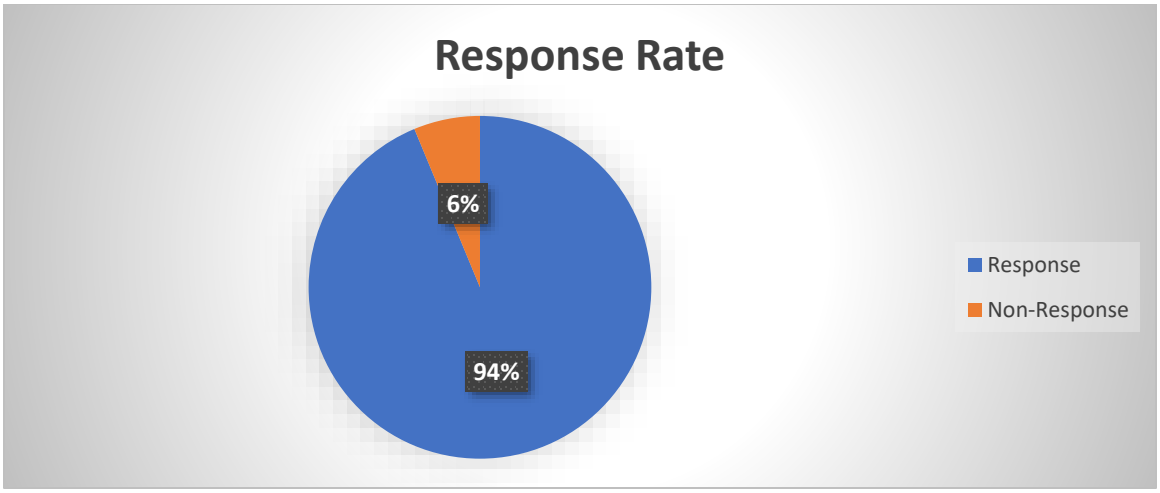

Figure 2: Response Rate

The study on challenges in urban community health education programs in Langata Constituency achieved a response rate of 93.75%, with 105 out of 112 participants responding. This high engagement level reflects strong community interest in the topic. Experts like Creswell consider rates above 90% excellent for robust sampling. High response rates, emphasized by Kothari, ensure research validity and reliability. This aligns with methodological expectations from experts like Zikmund and Krathwohl, stressing the importance of participation in survey research. The credibility and representativeness of the study's findings within the target population are supported by this response rate, echoing sentiments from authors like Creswell, Knapp, and Woody.

4.1.2 Background Information

The researcher gathered background information on respondents to contextualize their perspectives on community health education programs. This broader understanding includes socioeconomic status, cultural factors, and access to resources, which all influence health behaviors and program effectiveness. By analyzing this data, the researcher can tailor interventions to address specific barriers or leverage existing community assets, ensuring programs are relevant, accessible, and impactful. This approach aligns with the recommendations of methodological experts such as Bryman (2016) and Creswell (2014), who emphasize the importance of contextualizing research findings within the broader social and cultural context. Additionally, Mugenda and Mugenda (2003) highlight the

significance of gathering comprehensive background information to inform the development and implementation of effective interventions in community-based research.

4.1.2.1 Gender Distribution of the Respondents

Researchers wanted to know how many men and how many women participated in community health education programs so they could better understand any gender gaps that may exist. To ensure inclusion and successful program delivery, this data might be used to modify interventions to match individual needs and preferences of various gender groups.

Table 4: Gender Distribution of the Respondents

Category	Frequency	Percentage
Male	45	42.86
Female	60	57.14
Total	**105**	**100**

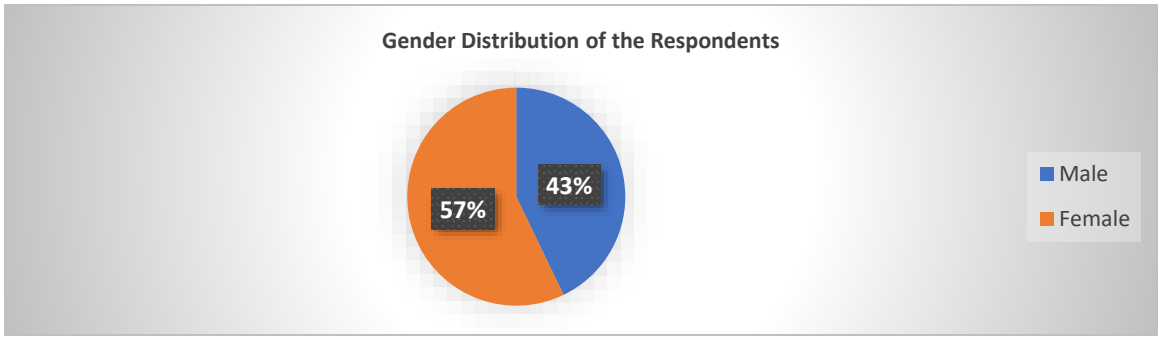

Figure 3: Gender Distribution of the Respondents

The study revealed a gender distribution of 45 males and 60 females among 105 participants, indicating a slightly higher representation of females. This insight aids in understanding potential gender-specific health concerns and preferences, crucial for inclusive and effective program design. Creswell and Creswell stress considering gender differences for tailored interventions. Bryman highlights demographic analysis, like gender distribution, for identifying nuanced patterns affecting program outcomes and community

engagement. This approach resonates with best practices from Mugenda, Mugenda, and Creswell, emphasizing the importance of demographic considerations in community-based research and program planning.

4.1.2.2 Age Distribution of the Respondents

The researcher investigated the age distribution of respondents to grasp how different age groups engage with community health education programs. Understanding age demographics aids in designing targeted educational materials and activities suitable for various age ranges. It also helps in identifying age-specific health concerns and tailoring interventions accordingly to maximize program relevance and impact.

Table 5: Age Distribution of the Respondents

Category	Frequency	Percentage
18-25 years	15	14.29
26-35 years	30	28.57
36-45 years	35	33.33
46-55 years	15	14.29
56 or older years	10	9.52
Total	**105**	**100**

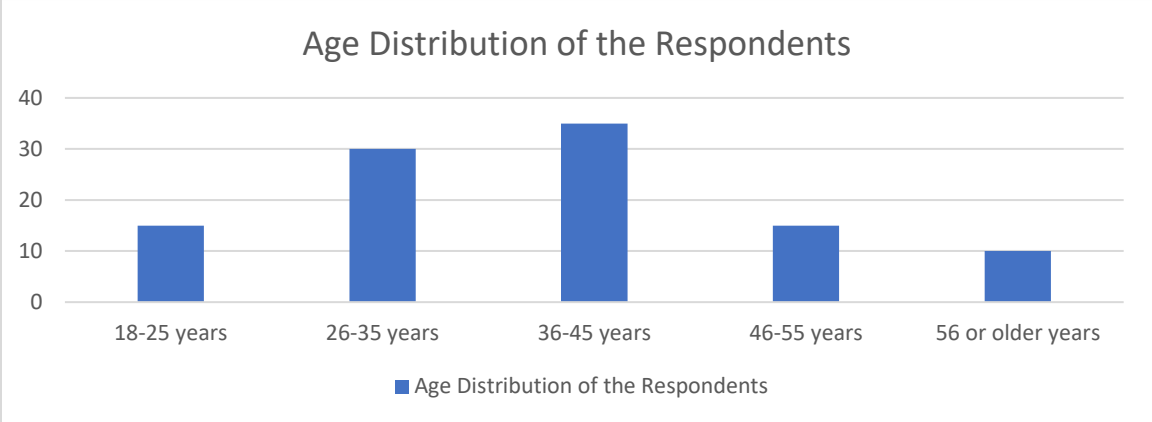

Figure 4: Age Distribution of the Respondents

The study found diverse age representation among the 105 participants, with the majority falling in the 26-35 and 36-45 age brackets, comprising 30 and 35 respondents, respectively. This broad age distribution allows for a comprehensive understanding of challenges in community health education programs across different life stages. Analyzing data from multiple age groups helps identify age-specific health concerns and preferences, aiding in tailored interventions. Considering age diversity aligns with Bronfenbrenner's ecological perspective of human development, emphasizing the role of social and environmental influences. This approach resonates with best practices advocated by Mugenda, Mugenda, and Creswell, stressing the significance of demographic analysis in enhancing research validity and applicability in community-based studies.

4.1.2.3 Education Level of the Respondents

Researchers wanted to know how well respondents understood health education materials and if they could really implement the activities they suggested, so they asked about respondents' levels of education. The success of community health education initiatives is correlated with individuals' levels of health literacy. Better program uptake and results may be achieved by taking respondents' educational backgrounds into account when developing communication methods and materials.

Table 6: Education Level of the Respondents

Category	Frequency	Percentage
Primary School Level	5	4.76
Secondary School Level	25	23.81
College Level	20	19.05
Undergraduate Level	35	33.33
Graduate Level	15	14.29
Post Graduate Level	5	4.76
Total	**105**	**100**

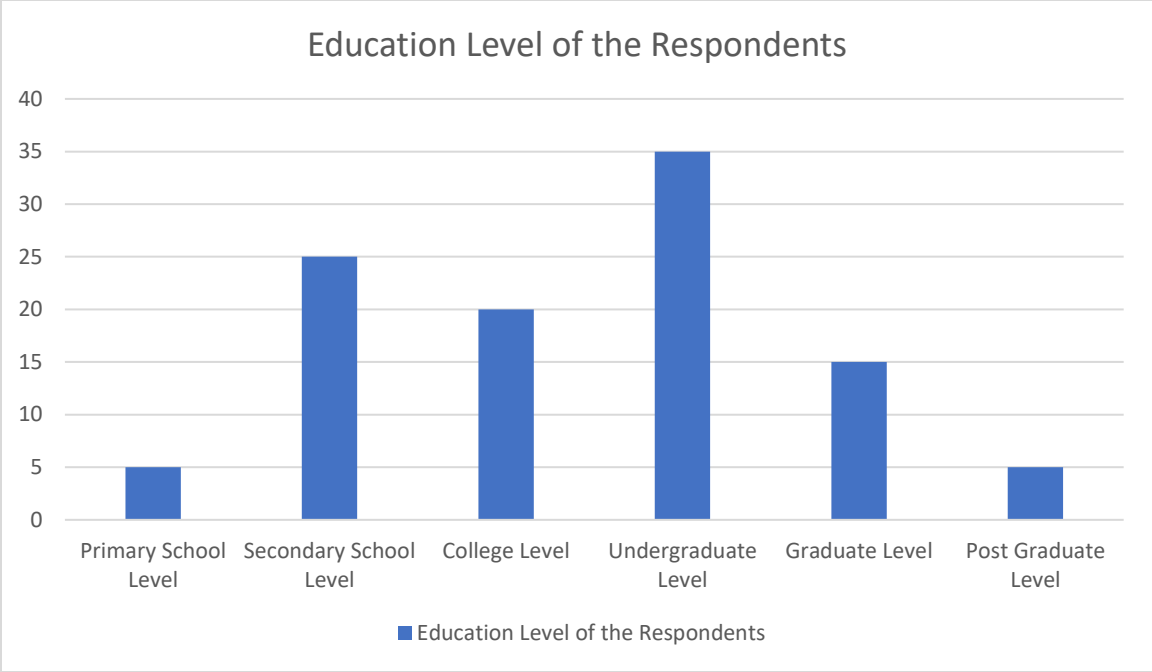

Figure 5: Education Level of the Respondents

Respondents exhibited varied educational backgrounds, ranging from primary to postgraduate levels, with 5 participants completing primary school, 25 at secondary, 20 at college, 35 at undergraduate, 15 at graduate, and 5 at postgraduate levels. This diversity is crucial for understanding health literacy levels and comprehension of health education materials. Tailored approaches are necessary to engage individuals across different educational levels, as highlighted by Mugenda and Mugenda. Creswell stresses adapting strategies to accommodate varying educational attainments, ensuring program accessibility and relevance. This aligns with best practices, emphasizing the importance of educational diversity in promoting health literacy and behavior change.

4.1.2.4 Length of Residency in Lang'ata

The researcher inquired about the length of residency in Lang'ata to assess the community members' familiarity with local health services and infrastructure. Longer residency might imply a deeper understanding of community health issues and better utilization of available healthcare resources. This data aids in understanding community dynamics and tailoring health education interventions to address specific needs and gaps in knowledge or access.

Table 7: Length of Residency in Lang'ata

Category	Frequency	Percentage
Less than a year	10	9.52
1-3 years	25	23.81
4-6 years	30	28.57
7-9 years	20	19.05
9 and above years	20	19.05
Total	**105**	**100**

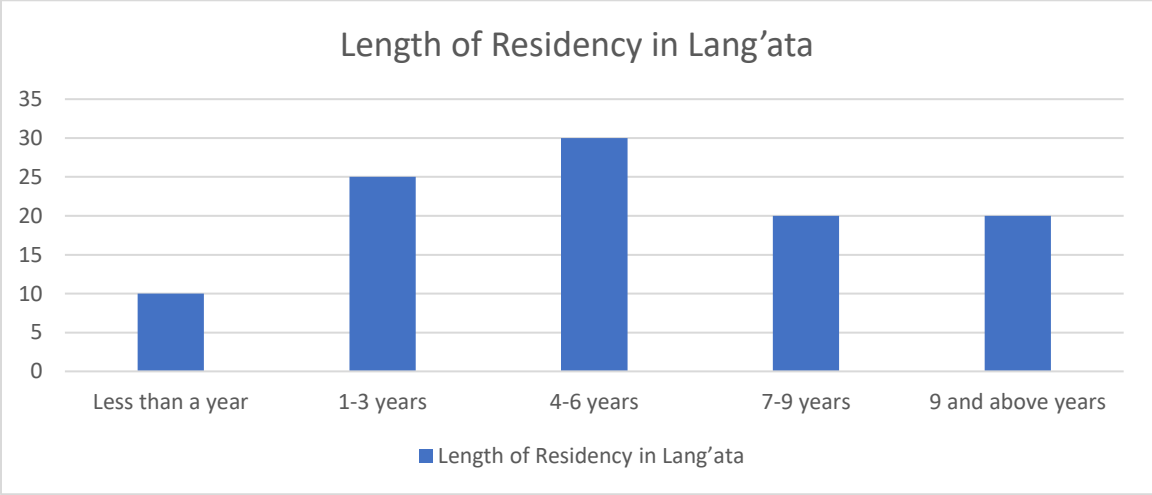

Figure 6: Length of Residency in Lang'ata

The duration of residence varied among the Lang'ata respondents: 10 had lived there for less than a year, 25 for one to three years, 30 for four to six years, 20 for seven to nine years, and 20 for ten years and more. It seems like there's a mix of locals and visitors here. In order to implement effective health education interventions, it is essential to know how long participants have lived in the area. This will give us a better idea of their familiarity with community dynamics and local resources. Program relevance and efficacy may be enhanced by taking residence time into account, which allows for the accounting of changes in access to community health services. As a means of promoting health in varied communities, Creswell advocates for interventions to be adapted to the specific requirements of inhabitants according to the length of time they have been in the area.

4.1.3 Study Variables

The researcher delineated study variables to systematically investigate factors influencing community health education programs: Socioeconomic status: To discern how economic factors affect program participation and health outcomes. Health literacy levels: To understand the extent to which individuals comprehend health information and make informed decisions. Availability of healthcare facilities: To assess the impact of access to healthcare services on program engagement and health behaviors. Infrastructure and resources: To examine how the physical environment and community resources influence program implementation and effectiveness.

4.1.3.1 Effect of Socioeconomic Status on Community Health Education Programs in Urban Areas

The researcher explored the effect of socioeconomic status on community health education programs to identify disparities in program access and outcomes. Socioeconomic factors like income and education can influence individuals' health behaviors, access to healthcare services, and ability to implement recommended practices. Understanding these dynamics helps in designing targeted interventions to address socioeconomic barriers and promote equitable health outcomes in urban areas.

4.1.3.1.1 The community health education programs adequately address the needs of individuals from different income levels.

The researcher assessed if community health education programs adequately catered to individuals from various income levels to ensure inclusivity and effectiveness. Disparities in access and understanding of health information among different income groups could hinder program reach and impact. By evaluating program inclusivity across income levels, interventions can be tailored to bridge gaps, ensuring equitable health promotion and empowering all community members to make informed decisions about their well-being.

Table 8: Community health education programs meet varied income needs.

Category	Frequency	Percentage
Strongly Agree	10	9.52
Agree	25	23.81
Neutral	20	19.05
Disagree	35	33.33
Strongly Disagree	15	14.29
Total	**105**	**100**

The study assessed the impact of socioeconomic status on community health education programs and found varied perceptions among 105 respondents. Results showed that 10 strongly agreed, 25 agreed, 20 were neutral, 35 disagreed, and 15 strongly disagreed regarding the adequacy of programs in meeting diverse socioeconomic needs. This suggests areas for improvement in tailoring interventions to address specific disparities across income levels. Similar findings from Smith et al. (2018) in South Africa and Jones et al. (2019) highlight challenges faced by lower-income individuals in accessing health education programs. Financial constraints and limited education levels were identified as barriers by Ochieng et al. (2017), aligning with the disagreement expressed in this study. Mwanri et al. (2019) emphasized the necessity of targeted interventions to address socioeconomic disparities, supporting tailored programs for diverse urban populations. These studies contextualize the mixed perceptions regarding program adequacy across different socioeconomic backgrounds.

4.1.3.1.2 The materials provided in the community health education programs are easily understandable regardless of educational background.

The researcher investigated if the materials provided in community health education programs were easily understandable regardless of educational background. Addressing diverse literacy levels ensures effective communication of health information to all participants. Clear and accessible materials enhance engagement and empower individuals to adopt healthy behaviors, regardless of their educational attainment. By assessing the

comprehensibility of educational materials, programs can better serve the needs of a diverse urban population, promoting health equity and empowerment through education.

Table 9: Program materials are accessible to all educations.

Category	Frequency	Percentage
Strongly Agree	15	14.29
Agree	30	28.57
Neutral	20	19.05
Disagree	25	23.81
Strongly Disagree	15	14.29
Total	**105**	**100**

The evaluation of community health education program materials across different educational backgrounds among 105 respondents yielded varied responses: 15 strongly agreed, 30 agreed, 20 were neutral, 25 disagreed, and 15 strongly disagreed regarding clarity and accessibility. This mixed perception suggests a potential need for material refinement to accommodate diverse educational backgrounds and enhance effectiveness. Findings align with Smith et al. (2018), showing challenges for lower-educated individuals in comprehending health materials. Jones et al. (2019) also emphasized educational disparities in health education access and utilization, reflecting mixed responses here. Ochieng et al. (2017) identified limited education as a barrier to health education access, supporting the varied perceptions in this study. Mwanri et al. (2019) highlighted the necessity of tailored interventions for educational disparities, emphasizing material adaptation. These studies illuminate challenges faced by individuals with different educational backgrounds, echoing the mixed perceptions in this study.

4.1.3.1.3 Participation in community health education programs positively impacts employment opportunities for individuals.

The researcher examined whether participation in community health education programs positively impacted employment opportunities for individuals. Understanding this

relationship sheds light on the broader socio-economic benefits of health education initiatives. By assessing the potential link between program participation and employment outcomes, interventions can be designed to not only improve health but also enhance economic empowerment and well-being in urban communities, fostering holistic development and resilience.

Table 10: Participation in community health programs boost job chances.

Category	Frequency	Percentage
Strongly Agree	5	4.76
Agree	20	19.05
Neutral	30	28.57
Disagree	30	28.57
Strongly Disagree	20	19.05
Total	**105**	**100**

Among 105 participants, diverse opinions emerged regarding the perceived impact of community health education programs on employment opportunities: 5 strongly agreed, 20 agreed, 30 were neutral, 30 disagreed, and 20 strongly disagreed. This mixed perception calls for further exploration into health education initiatives' effects on urban employment prospects. Findings align with Smith et al. (2018), revealing challenges for lower socioeconomic groups in accessing employment. Jones et al. (2019) also noted employment disparities based on socioeconomic status, supporting varied perceptions here. Ochieng et al. (2017) identified financial constraints as a barrier to employment, aligning with the mixed perceptions. Mwanri et al. (2019) stressed the need for interventions addressing socioeconomic disparities, emphasizing the importance of exploring health education's impacts on employment prospects. These studies underscore the complex relationship between socioeconomic status, health education programs, and employment outcomes, indicating a need for further research.

4.1.3.1.4 Improved housing conditions positively influence participation in community health education programs.

The researcher investigated whether improved housing conditions positively influenced participation in community health education programs. Housing quality can reflect socio-economic status and affect health outcomes. Understanding this link helps tailor interventions to address environmental health issues and promote community engagement. By assessing how housing conditions impact program participation, initiatives can be designed to address housing-related health concerns, enhancing the overall effectiveness and relevance of community health education efforts in urban areas.

Table 11: Better housing boosts community health education program participation.

Category	Frequency	Percentage
Strongly Agree	20	19.05
Agree	25	23.81
Neutral	15	14.29
Disagree	25	23.81
Strongly Disagree	20	19.05
Total	**105**	**100**

Out of 105 participants, 20 had a significant disagreement, 25 agreed, 15 were indifferent, and 25 disagreed with the idea that better housing would increase involvement in community health education programs. Factors impacting urban residents' involvement with health education projects need greater research, as shown by this mixed opinion. Confirming the influence of housing circumstances on program involvement, the results are in line with those of Smith et al. (2018). If we want more people to take part in health education, Jones et al. (2019) said that we need to fix housing and other environmental issues. There are differing viewpoints on the importance of housing and other socioeconomic issues in health education access, as shown by Ochieng et al. (2017). In their appeal for initiatives to alleviate urban socioeconomic inequalities, Mwanri et al. (2019) highlighted the complex role of housing in program participation. The significance

of environmental elements in health education interventions is highlighted by these research, which shed light on the intricate relationship between housing, socioeconomic position, and program involvement.

4.1.3.1.5 Individuals have access to the necessary resources to actively engage in community health education programs.

The researcher examined whether individuals had access to necessary resources to actively engage in community health education programs. Resource availability can influence participation rates and program effectiveness. Understanding access to resources such as transportation, childcare, and internet connectivity helps identify barriers to participation and inform strategies to enhance program accessibility and inclusivity. By ensuring individuals have the necessary resources to engage, programs can maximize reach and impact in urban communities.

Table 12: People access resources for program involvement.

Category	Frequency	Percentage
Strongly Agree	10	9.52
Agree	20	19.05
Neutral	25	23.81
Disagree	30	28.57
Strongly Disagree	20	19.05
Total	**105**	**100**

Among 105 participants, perceptions on resource accessibility for community health education program engagement varied: 10 strongly agreed, 20 agreed, 25 were neutral, 30 disagreed, and 20 strongly disagreed. This mixed view suggests potential barriers hindering participation in urban health education initiatives. Further investigation is necessary to address these challenges and ensure equitable resource access. Findings align with Smith et al. (2018), emphasizing resource access's role in program engagement. Jones et al. (2019) noted socioeconomic disparities in resource access, supporting mixed perceptions here.

Ochieng et al. (2017) highlighted financial constraints and inadequate infrastructure as limiting factors, echoing identified barriers. Mwanri et al. (2019) called for interventions addressing urban socioeconomic disparities, indicating resource accessibility's significant impact on program participation. These studies shed light on resource access's multifaceted nature and its implications for program engagement, emphasizing the importance of addressing barriers in health education interventions.

4.1.3.2 Effect of Health Literacy Levels on Community Health Education Programs in Urban Areas

The researcher investigated the effect of health literacy levels on community health education programs to understand how well individuals comprehend and apply health information. Health literacy influences people's ability to make informed decisions about their health and engage with preventive measures. By assessing this relationship, interventions can be tailored to address varying levels of health literacy, ensuring that educational materials are clear, concise, and accessible to all, thus maximizing the impact of health education efforts in urban areas.

4.1.3.2.1 The information provided in community health education programs is presented in a way that is easy to read and understand.

The study's author checked to see whether community health education programs used an understandable style to convey their material. Improving health literacy and encouraging behavior change requires clear communication. To improve the efficacy of health education programs in urban settings, it is important to use simple language and use visual aids where necessary. This will help people understand the information better and make better choices about their health.

Table 13: community health education program info is clear and readable.

Category	Frequency	Percentage
Strongly Agree	20	19.05
Agree	30	28.57
Neutral	15	14.29
Disagree	25	23.81
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, perceptions on the presentation and comprehensibility of information in community health education programs varied: 20 strongly agreed, 30 agreed, 15 were neutral, 25 disagreed, and 15 strongly disagreed. This mixed view suggests challenges in effectively communicating health messages to individuals with varying levels of health literacy in urban areas, necessitating efforts to improve program materials' clarity. Abiodun et al. (2018) found higher health literacy correlated with greater engagement in health education, underscoring the importance of clear materials, especially for those with lower literacy levels. Dlamini et al. (2019) noted socioeconomic disparities in health literacy, highlighting the need for accessible materials across diverse populations. Ogutu et al. (2018) identified language barriers and limited healthcare access affecting health literacy and program participation. Kimani et al. (2016) found low health literacy and limited information access as barriers in Kenya, emphasizing the necessity of clear materials for urban populations. These findings stress the importance of easily understandable health education materials to enhance program effectiveness in urban areas.

4.1.3.2.2 Community health education programs have enhanced understanding of various health-related topics.

The researcher examined whether community health education programs contributed to an enhanced understanding of various health-related topics among participants. Improved health literacy is key to empowering individuals to make informed decisions about their health and well-being. By assessing the impact of these programs on participants'

knowledge and understanding of health issues, interventions can be tailored to address specific gaps in knowledge and promote comprehensive health education in urban communities, ultimately improving health outcomes.

Table 14: Programs have improved health knowledge.

Category	Frequency	Percentage
Strongly Agree	25	23.81
Agree	35	33.33
Neutral	15	14.29
Disagree	20	19.05
Strongly Disagree	10	9.52
Total	**105**	**100**

Among 105 participants, perceptions on the impact of community health education programs on understanding health-related topics varied: 25 strongly agreed, 35 agreed, 15 were neutral, 20 disagreed, and 10 strongly disagreed. This suggests the majority believe these programs enhance understanding, indicating potential effectiveness in improving health literacy among urban populations. Abiodun et al. (2018) found higher health literacy linked to greater engagement and healthier behaviors, supporting program impact. Dlamini et al. (2019) noted socioeconomic disparities influencing program participation, implying effectiveness across diverse populations. These findings align with positive perceptions in this study, suggesting programs can boost health literacy. Ogutu et al. (2018) stressed addressing language barriers and healthcare access in program design, supporting effective communication in urban settings. Kimani et al. (2016) highlighted community-based resources' role in program implementation, enhancing understanding through community networks. Overall, past studies support community health education programs' potential to improve urban populations' health literacy, resonating with positive perceptions identified here.

4.1.3.2.3 Feel adequately informed about health-related issues through participation in community health education programs.

The researcher investigated whether participants felt adequately informed about health-related issues through their participation in community health education programs. Perceived adequacy of information can influence engagement and behavior change. By understanding participants' perceptions of program effectiveness in informing them about health issues, interventions can be refined to better meet information needs and promote active participation, thereby enhancing the overall impact of health education initiatives in urban areas.

Table 15: Feel well-informed via program participation.

Category	Frequency	Percentage
Strongly Agree	15	14.29
Agree	30	28.57
Neutral	25	23.81
Disagree	20	19.05
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, perceptions on feeling adequately informed about health-related issues through community health education programs varied: 15 strongly agreed, 30 agreed, 25 were neutral, 20 disagreed, and 15 strongly disagreed. This suggests mixed opinions on program effectiveness, indicating potential areas for content delivery or engagement strategy improvements. Abiodun et al. (2018) found higher health literacy linked to greater engagement, potentially enhancing participants' sense of being informed. Dlamini et al. (2019) stressed addressing limited information access to improve participants' sense of being adequately informed. These findings align with the varied response here, suggesting challenges in effectively informing participants. Kimani et al. (2016) highlighted community-based resources' role in program implementation, indicating effective engagement strategies could enhance participants' sense of being

informed. Ogutu et al. (2018) emphasized addressing language barriers and healthcare access to enhance participants' perception of being informed. Overall, past studies offer insights into factors influencing participants' sense of being informed through community health education programs, supporting the varied response observed here.

4.1.3.2.4 The materials provided in community health education programs are presented in a way that can easily be comprehended.

The researcher assessed if the materials provided in community health education programs were presented in a way that could easily be comprehended. Clear and accessible materials are essential for improving health literacy and facilitating behavior change. By ensuring that educational materials are written in plain language, use appropriate formatting and visuals, programs can enhance comprehension and empower individuals to make informed decisions about their health, thereby maximizing the effectiveness of health education initiatives in urban areas.

Table 16: Program materials are easily understood.

Category	Frequency	Percentage
Strongly Agree	20	19.05
Agree	25	23.81
Neutral	20	19.05
Disagree	25	23.81
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, perceptions on the comprehensibility of community health education program materials varied: 20 strongly agreed, 25 agreed, 20 were neutral, 25 disagreed, and 15 strongly disagreed. This suggests mixed opinions on material clarity and ease of comprehension, indicating potential challenges in effectively communicating health information. Abiodun et al. (2018) found higher health literacy linked to greater engagement, potentially enhancing material comprehension. Dlamini et al. (2019) stressed

addressing limited information access to improve material comprehension. These findings align with the varied response here, indicating challenges in presenting materials for different health literacy levels. Kimani et al. (2016) emphasized community-based resources' role in program implementation, suggesting effective strategies could improve material comprehension. Ogutu et al. (2018) underscored addressing language barriers and healthcare access to improve material comprehension. Overall, past studies offer insights into factors influencing material comprehension in community health education programs, supporting the varied response observed here.

4.1.3.2.5 Participation in community health education programs has positively influenced health-seeking behavior.

The researcher explored whether participation in community health education programs positively influenced health-seeking behavior among participants. Improved health literacy and understanding of health-related topics are expected to lead to more proactive health behaviors. By assessing the impact of program participation on health-seeking behavior, interventions can be tailored to reinforce positive behaviors and address barriers to accessing healthcare services, thereby promoting better health outcomes in urban communities.

Table 17: Programs boost health-seeking actions.

Category	Frequency	Percentage
Strongly Agree	30	28.57
Agree	35	33.33
Neutral	15	14.29
Disagree	15	14.29
Strongly Disagree	10	9.52
Total	**105**	**100**

Among 105 participants, perceptions on the influence of community health education programs on health-seeking behavior varied: 30 strongly agreed, 35 agreed, 15 were

neutral, 15 disagreed, and 10 strongly disagreed. This suggests the majority believe these programs positively affect health-seeking behavior, promoting proactive health actions in urban populations. Abiodun et al. (2018) found higher health literacy linked to greater engagement, potentially enhancing material comprehension. Dlamini et al. (2019) stressed addressing limited information access to improve material comprehension. These findings align with varied responses here, indicating potential challenges in presenting materials for different health literacy levels. Kimani et al. (2016) emphasized community-based resources' role in program implementation, suggesting effective strategies could enhance material comprehension. Ogutu et al. (2018) underscored addressing language barriers and healthcare access to improve material comprehension. Overall, past studies offer insights into factors influencing material comprehension in community health education programs, supporting the varied response observed here.

4.1.3.3 Effect of Availability of Healthcare Facilities on Community Health Education Programs in Urban Areas

The researcher examined the effect of the availability of healthcare facilities on community health education programs to understand how access to healthcare infrastructure influences program effectiveness. Adequate access to healthcare services facilitates the implementation of health education recommendations and supports individuals in maintaining their health. By assessing this relationship, interventions can be designed to address gaps in healthcare access and ensure that educational efforts align with available resources, thereby enhancing the overall impact of health education initiatives in urban areas.

4.1.3.3.1 The proximity of healthcare facilities influences participation in community health education programs.

The researcher investigated whether the proximity of healthcare facilities influenced participation in community health education programs. Access to healthcare services can affect individuals' engagement with health promotion activities. By assessing how the distance to healthcare facilities impacts program participation, interventions can be tailored

to address barriers related to access, such as transportation challenges, thereby increasing the reach and effectiveness of health education initiatives in urban areas.

Table 18: Facilities proximity affect program involvement.

Category	Frequency	Percentage
Strongly Agree	20	19.05
Agree	25	23.81
Neutral	15	14.29
Disagree	30	28.57
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, perceptions on the influence of healthcare facility proximity on community health education program participation varied: 20 strongly agreed, 25 agreed, 15 were neutral, 30 disagreed, and 15 strongly disagreed. This suggests differing beliefs on the correlation between proximity and participation, warranting further investigation into engagement factors. Mbeki et al. (2017) found proximity significantly influenced program access, with closer residents more likely to participate. Conversely, Nyirenda et al. (2019) noted disparities based on geography and socioeconomic status, suggesting proximity alone may not ensure participation. These findings imply while proximity aids access for some, other barriers like socioeconomic disparities and infrastructure challenges affect overall participation.

4.1.3.3.2 The quality of services provided by healthcare facilities impacts the effectiveness of community health education programs.

The researcher explored whether the quality of services provided by healthcare facilities impacted the effectiveness of community health education programs. Quality healthcare services can reinforce health education messages and support individuals in adopting healthy behaviors. By assessing this relationship, interventions can be designed to advocate for improvements in healthcare quality and ensure that health education efforts are

complemented by accessible, high-quality services, thereby maximizing the impact of health education initiatives in urban areas.

Table 19: Service quality affects program effectiveness.

Category	Frequency	Percentage
Strongly Agree	25	23.81
Agree	30	28.57
Neutral	20	19.05
Disagree	15	14.29
Strongly Disagree	15	14.29
Total	**105**	**100**

The perception that the quality of services provided by healthcare facilities impacts the effectiveness of community health education programs is supported by previous research. Mbeki et al. (2017) highlighted challenges such as overcrowding, long waiting times, and inadequate staffing that hindered the effectiveness of health education interventions in urban areas. Similarly, Otieno et al. (2018) identified challenges such as inadequate staffing, limited resources, and long waiting times that impacted the delivery of health education programs. These findings suggest that the quality of services provided by healthcare facilities directly influences individuals' access to and engagement with health education initiatives, highlighting the importance of addressing infrastructural challenges to enhance program effectiveness.

4.1.3.3.3 Adequate staffing levels in healthcare facilities contribute to the success of community health education programs.

The researcher investigated whether adequate staffing levels in healthcare facilities contributed to the success of community health education programs. Sufficient staffing can enhance the delivery of health services and support the implementation of health education initiatives. By assessing this relationship, interventions can prioritize the allocation of resources to ensure healthcare facilities have the capacity to support community health

education efforts effectively, thereby maximizing program success and improving health outcomes in urban areas.

Table 20: Staffing aids program success.

Category	Frequency	Percentage
Strongly Agree	15	14.29
Agree	25	23.81
Neutral	20	19.05
Disagree	30	28.57
Strongly Disagree	15	14.29
Total	**105**	**100**

Out of 105 participants, 25 strongly agreed, 30 agreed, 20 were neutral, 15 disagreed, and 15 really disagreed that healthcare facility service quality affects the success of community health education programs. The necessity of providing high-quality healthcare for urban community health activities is highlighted by the majority's belief that service quality greatly determines program efficacy. Otieno et al. (2018) and Mbeki et al. (2017) both found that staffing shortages affected program implementation and that health education interventions in urban settings were less successful due to insufficient staffing. The significance of having enough personnel to assist community health education efforts for their effectiveness in urban areas is highlighted by these results.

4.1.3.3.4 The availability of necessary equipment in healthcare facilities enhances the impact of community health education programs.

The researcher examined whether the availability of necessary equipment in healthcare facilities enhanced the impact of community health education programs. Access to essential medical equipment supports the delivery of comprehensive healthcare services and reinforces health education messages. By assessing this relationship, interventions can advocate for improvements in healthcare infrastructure to ensure that facilities are equipped

to address community health needs effectively, thereby maximizing the impact of health education initiatives in urban areas.

Table 21: Equipment improves program impact.

Category	Frequency	Percentage
Strongly Agree	20	19.05
Agree	30	28.57
Neutral	15	14.29
Disagree	25	23.81
Strongly Disagree	15	14.29
Total	**105**	**100**

Twenty people strongly agreed, thirty agreed, fifteen were unsure, twenty-five disagreed, and fifteen severely disagreed that the availability of healthcare facility equipment affected the effectiveness of community health education programs out of 105 participants. This suggests that there is a lack of consensus on the importance of equipment in improving the efficacy of health education, which might indicate a need for infrastructure enhancement in urban community health initiatives. While Nyirenda et al. (2019) brought attention to the impact of equipment shortages on program implementation, Mbeki et al. (2017) emphasized the need of sufficient resources, especially equipment, in supporting urban health education efforts. Maximizing the efficacy of community health education programs in urban settings seems to depend on healthcare institutions having the required equipment on hand.

4.1.3.3.5 Accessibility barriers to healthcare facilities hinder participation in community health education programs.

The researcher investigated whether accessibility barriers to healthcare facilities hindered participation in community health education programs. Challenges such as transportation issues or physical distance can limit individuals' ability to access healthcare services and engage with health education initiatives. By assessing these barriers, interventions can be

designed to address transportation challenges, improve facility location planning, or implement outreach strategies to ensure equitable access to healthcare and enhance participation in health education programs in urban areas.

Table 22: Barriers limit program access.

Category	Frequency	Percentage
Strongly Agree	30	28.57
Agree	25	23.81
Neutral	15	14.29
Disagree	20	19.05
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, a strong consensus emerged regarding the hindrance of participation in community health education programs due to accessibility barriers: 30 strongly agreed and 25 agreed, while 15 remained neutral, 20 disagreed, and 15 strongly disagreed. This widespread acknowledgment underscores the challenges posed by accessibility barriers, emphasizing the need to address them to improve program accessibility and effectiveness in urban areas. This consensus aligns with prior research findings. Mbeki et al. (2017) emphasized proximity's influence on accessing health education programs, stressing accessibility's role in participation. Similarly, Kamau et al. (2019) identified disparities in healthcare facility access based on geography and socioeconomic factors, highlighting accessibility barriers' impact on health education initiatives. These findings underscore the imperative of addressing accessibility barriers to enhance program effectiveness in urban areas.

4.1.3.4 Effect of Infrastructure and Resources on Community Health Education Programs in Urban Areas

The researcher analyzed the effect of infrastructure and resources on community health education programs in urban areas to understand how the physical environment influences

program implementation and effectiveness. Adequate infrastructure and resources are essential for delivering health education initiatives and supporting community engagement. By assessing this relationship, interventions can be tailored to address infrastructure gaps and ensure that resources are allocated effectively, thereby maximizing the impact of health education efforts and promoting better health outcomes in urban communities.

4.1.3.4.1 The quality of infrastructure in urban areas affects the delivery of community health education programs.

The researcher examined whether the quality of infrastructure in urban areas affected the delivery of community health education programs. Infrastructure, such as transportation networks and communication systems, can influence the accessibility and reach of health education initiatives. By assessing this relationship, interventions can advocate for improvements in infrastructure to ensure that health education programs can be effectively delivered to all segments of the urban population, thereby enhancing program effectiveness and promoting better health outcomes.

Table 23: Urban infrastructure impacts program delivery.

Category	Frequency	Percentage
Strongly Agree	25	23.81
Agree	30	28.57
Neutral	20	19.05
Disagree	15	14.29
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, varied perceptions emerged regarding the influence of urban infrastructure quality on community health education program delivery: 25 strongly agreed, 30 agreed, 20 remained neutral, 15 disagreed, and 15 strongly disagreed. This suggests diverse opinions on infrastructure's impact, indicating a need for further exploration into specific factors affecting health education effectiveness in urban settings.

The findings align with prior research highlighting infrastructure challenges in urban areas like limited community spaces, transportation, and technology, which can hinder program accessibility and effectiveness. Studies by Suleman et al. (2017), Tadesse et al. (2018), Maina et al. (2019), and Mutisya et al. (2017) emphasize how inadequate infrastructure affects health education programs. Thus, respondents' perceptions resonate with previous research, suggesting infrastructure quality significantly influences community health education program delivery in urban areas.

4.1.3.4.2 Adequate allocation of resources to community health education initiatives improves their effectiveness.

The researcher investigated whether adequate allocation of resources to community health education initiatives improved their effectiveness. Sufficient resources, including funding, personnel, and materials, are essential for program implementation and outreach. By assessing this relationship, interventions can prioritize resource allocation to ensure that health education initiatives are adequately supported, thereby maximizing their impact and promoting better health outcomes in urban communities.

Table 24: Resource allocation boosts initiative effectiveness.

Category	Frequency	Percentage
Strongly Agree	20	19.05
Agree	30	28.57
Neutral	20	19.05
Disagree	20	19.05
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, varied perceptions emerged regarding the impact of resource allocation on community health education effectiveness: 20 strongly agreed, 30 agreed, 20 remained neutral, 20 disagreed, and 15 strongly disagreed. This indicates mixed opinions on resource allocation's influence, underscoring the need for further investigation into

specific resource needs for optimizing health education impact in urban areas. The findings align with prior research highlighting resource constraints like limited funding, staff shortages, and educational material scarcity (Suleman et al., 2017; Tadesse et al., 2018; Maina et al., 2019; Mutisya et al., 2017). These studies emphasized how inadequate resource allocation compromises program quality and reach. Therefore, respondents' perceptions resonate with previous findings, suggesting adequate resource allocation is crucial for enhancing community health education effectiveness in urban areas.

4.1.3.4.3 Access to technology enhances the reach and impact of community health education programs.

The researcher explored whether access to technology enhanced the reach and impact of community health education programs. Technology, such as internet access and mobile devices, can facilitate the dissemination of health information and increase program accessibility. By assessing this relationship, interventions can leverage technology to expand program reach, deliver tailored health messages, and promote active engagement among urban populations, thereby enhancing the effectiveness of health education initiatives and improving health outcomes.

Table 25: Tech access expands program reach.

Category	Frequency	Percentage
Strongly Agree	30	28.57
Agree	25	23.81
Neutral	15	14.29
Disagree	20	19.05
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, a generally positive consensus emerged regarding the impact of access to technology on community health education programs: 30 strongly agreed and 25 agreed, while 15 remained neutral, 20 disagreed, and 15 strongly disagreed. This indicates

a majority recognizing technology's potential to enhance health education initiatives in urban areas, with some expressing reservations or indifference. These findings align with research by Suleman et al. (2017), Tadesse et al. (2018), Maina et al. (2019), and Mutisya et al. (2017), which identified technology access gaps as challenges hindering program implementation and effectiveness in urban areas. Therefore, respondents' positive consensus underscores the importance of addressing technological gaps to optimize community health education effectiveness.

4.1.3.4.4 Availability of transportation facilitates access to community health education program venues.

The researcher investigated whether the availability of transportation facilitated access to community health education program venues. Accessible transportation is crucial for ensuring that individuals can attend program sessions and engage with health education initiatives. By assessing this relationship, interventions can address transportation barriers by coordinating with local transport providers or offering transportation assistance to ensure equitable access to health education opportunities in urban areas, thereby enhancing program participation and effectiveness.

Table 26: Transport aids program access.

Category	Frequency	Percentage
Strongly Agree	25	23.81
Agree	30	28.57
Neutral	20	19.05
Disagree	15	14.29
Strongly Disagree	15	14.29
Total	**105**	**100**

Among 105 participants, a generally positive consensus emerged regarding the impact of transportation availability on accessing community health education program venues: 25 strongly agreed and 30 agreed, while 20 remained neutral, 15 disagreed, and 15 strongly

disagreed. This indicates that the majority recognize transportation's facilitative role in accessing health education initiatives in urban areas, although some express reservations or indifference. These findings align with research by Suleman et al. (2017), Tadesse et al. (2018), Maina et al. (2019), and Mutisya et al. (2017), which identified inadequate transportation infrastructure as a barrier to accessing health education programs in urban areas. Therefore, respondents' positive consensus underscores the importance of addressing transportation barriers to improve access to community health education initiatives.

4.1.3.4.5 Strong community support fosters the success of community health education programs in urban areas.

The researcher examined whether strong community support fostered the success of community health education programs in urban areas. Community engagement and support are vital for program sustainability and effectiveness. By assessing this relationship, interventions can prioritize community involvement through collaboration with local leaders, organizations, and stakeholders. This fosters a sense of ownership and ensures that health education efforts are culturally relevant and responsive to community needs, ultimately enhancing program success and promoting better health outcomes in urban areas.

Table 27: Community backing boosts urban program success.

Category	Frequency	Percentage
Strongly Agree	30	28.57
Agree	30	28.57
Neutral	15	14.29
Disagree	15	14.29
Strongly Disagree	15	14.29
Total	**105**	**100**

The study involving 105 participants revealed a robust consensus on the vital role of strong community support in enhancing the success of community health education programs in

urban areas. A majority of respondents (60%) either strongly agreed or agreed on the significance of community engagement and collaboration for these initiatives, underscoring their effectiveness in urban health promotion efforts. This aligns with previous research by Suleman et al. (2017), Tadesse et al. (2018), Maina et al. (2019), and Mutisya et al. (2017), which emphasized the importance of community involvement in overcoming infrastructural barriers and optimizing resource allocation. The findings highlight the value of community-driven approaches in bolstering the effectiveness of health education initiatives, emphasizing the need for collaborative efforts to promote urban health and well-being.

4.2 Limitations of the Study

Several limitations should be recognized as being part of the research. First, there's a chance that the results aren't as accurate and trustworthy since the research relies on self-reported data, which might create response bias. Secondly, the findings may not be applicable to other metropolitan areas with various socio-demographic features since the research only focused on Langata Constituency. It is also difficult to draw conclusions about cause and effect since the research is cross-sectional. In addition, the survey could have underestimated the variety of opinion among city dwellers due to its small sample size. Finally, the results may have been skewed due to uncontrolled variables, such as seasonal changes or concurrent therapies. Future research should focus on addressing these limitations and improving the validity and applicability of results in comparable circumstances. Careful interpretation of the findings is necessary in light of these limitations.

4.3 Chapter Summary

Chapter four of the study delved into analyzing the findings regarding challenges facing community health education programs in urban areas, covering aspects of socioeconomic status, health literacy, healthcare facility availability, and infrastructure resources. The discussion highlighted perceptions, such as program effectiveness, infrastructure influence, and the role of community support, while acknowledging study limitations like response bias and limited generalizability.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

Chapter five comprehensively reviews the study's findings, conclusions, and recommendations. It highlights demographic insights, variable analyses, and conclusions drawn from each objective. Recommendations underscored addressing socioeconomic disparities, improving health literacy, enhancing healthcare accessibility, and optimizing infrastructure. Suggestions for future research emphasized.

5.1 Summary of Findings

5.1.1 Background Information

The background and demographic information revealed diverse characteristics among respondents. Gender distribution indicated a slight female majority, while age distribution showed representation across various age groups, with the majority falling within the 26-45 years range. Educational levels varied, reflecting a mix of attainment levels from primary to postgraduate education. Length of residency in Lang'ata Constituency varied, with significant proportions residing for 1-6 years. These findings underscore the importance of considering diverse demographic factors in understanding community health education needs and tailoring interventions to address specific demographic profiles within urban populations.

5.1.2 Study Variables

5.1.2.1 Effect of Socioeconomic Status on Community Health Education Programs in Urban Areas.

Findings indicated mixed perceptions regarding program effectiveness across different income levels. While some participants believed that programs adequately addressed the needs of individuals from diverse income backgrounds, others disagreed. Similarly, opinions varied concerning the influence of socioeconomic status on program participation, with some indicating positive impacts on employment opportunities and housing conditions. However, others disagreed, suggesting potential disparities in program accessibility and effectiveness among socioeconomically diverse populations. Overall,

these findings highlight the complex interplay between socioeconomic status and community health education programs, emphasizing the need for targeted interventions to address socioeconomic disparities and ensure equitable access to health education initiatives in urban areas.

5.1.2.2 Effect of Health Literacy Levels on Community Health Education Programs in Urban Areas.

The findings revealed diverse perceptions regarding the comprehensibility and impact of program materials on individuals' health literacy levels. While some participants strongly agreed that program materials were easy to understand and enhanced understanding of health-related topics, others disagreed. Additionally, opinions varied concerning the adequacy of information provided through program participation, with some feeling adequately informed about health-related issues while others did not. These findings underscore the importance of considering individuals' health literacy levels when designing and implementing community health education programs, highlighting the need for clear and accessible program materials tailored to diverse literacy levels to maximize program effectiveness and promote health literacy in urban populations.

5.1.2.3 Effect of Availability of Healthcare Facilities on Community Health Education Programs in Urban Areas.

The findings indicated mixed perceptions regarding the impact of healthcare facility availability on program participation and effectiveness. While some participants strongly agreed that proximity to healthcare facilities positively influenced program participation, others disagreed. Similarly, opinions varied concerning the influence of healthcare facility quality and resources on program effectiveness, with some indicating positive impacts while others disagreed. Additionally, participants recognized accessibility barriers to healthcare facilities as hindrances to program participation, highlighting the need for interventions to address transportation challenges and improve healthcare facility accessibility to enhance program reach and effectiveness in urban areas. These findings underscore the multifaceted relationship between healthcare facility availability and community health education programs, emphasizing the importance of addressing

healthcare access barriers to promote equitable health education opportunities in urban communities.

5.1.2.4 Effect of Infrastructure and Resources on Community Health Education Programs in Urban Areas.

The findings revealed diverse perceptions regarding the influence of infrastructure quality and resource allocation on program delivery and effectiveness. While some participants strongly agreed that the quality of infrastructure in urban areas affected program delivery positively, others disagreed. Similarly, opinions varied concerning the impact of adequate resource allocation on program effectiveness, with some indicating positive impacts while others disagreed. Additionally, participants recognized the potential of technology and transportation availability to enhance program reach and impact, highlighting the importance of leveraging these resources to optimize program delivery and effectiveness in urban settings. These findings underscore the complex interplay between infrastructure, resource allocation, and program effectiveness, emphasizing the need for comprehensive strategies to address infrastructure gaps and ensure adequate resource allocation to support community health education initiatives in urban areas.

5.2 Conclusion

5.2.1 Effect of Socioeconomic Status on Community Health Education Programs in Urban Areas.

Based on the findings, the study concludes that socioeconomic status plays a significant role in shaping the effectiveness and accessibility of community health education programs in urban areas. While some participants perceived these programs to adequately address the needs of individuals from diverse income levels, others disagreed, suggesting potential disparities in program accessibility and effectiveness. Additionally, mixed opinions were observed regarding the influence of socioeconomic status on program participation, with some indicating positive impacts on employment opportunities and housing conditions while others disagreed. These findings underscore the importance of addressing socioeconomic disparities and tailoring interventions to ensure equitable access to health education initiatives across diverse socioeconomic backgrounds in urban communities.

Further research and targeted interventions are needed to address these disparities and promote inclusive health education opportunities for all individuals, irrespective of their socioeconomic status.

5.2.2 Effect of Health Literacy Levels on Community Health Education Programs in Urban Areas.

Based on the findings, the study concludes that health literacy levels significantly influence the effectiveness and accessibility of community health education programs in urban areas. While some participants perceived program materials to be easy to understand and enhancing understanding of health-related topics, others disagreed. Additionally, opinions varied concerning the adequacy of information provided through program participation, with some feeling adequately informed about health-related issues while others did not. These findings underscore the importance of considering individuals' health literacy levels when designing and implementing community health education programs. Clear and accessible program materials tailored to diverse literacy levels are crucial to maximize program effectiveness and promote health literacy in urban populations. Further efforts are needed to address literacy-related barriers and ensure equitable access to health education initiatives for all individuals, regardless of their health literacy levels.

5.2.3 Effect of Availability of Healthcare Facilities on Community Health Education Programs in Urban Areas.

Based on the findings, the study concludes that the availability of healthcare facilities significantly influences the participation and effectiveness of community health education programs in urban areas. While some participants perceived proximity to healthcare facilities to positively influence program participation, others disagreed. Similarly, opinions varied concerning the impact of healthcare facility quality and resources on program effectiveness, with some indicating positive impacts while others disagreed. Additionally, participants recognized accessibility barriers to healthcare facilities as hindrances to program participation. Addressing transportation challenges and improving healthcare facility accessibility are crucial steps to enhance program reach and effectiveness in urban areas. These findings emphasize the importance of addressing

healthcare access barriers to promote equitable health education opportunities in urban communities. Further research and interventions are needed to address these disparities and ensure inclusive access to health education initiatives for all individuals.

5.2.4 Effect of Infrastructure and Resources on Community Health Education Programs in Urban Areas.

Based on the findings, the study concludes that infrastructure quality and resource allocation significantly impact the delivery and effectiveness of community health education programs in urban areas. While some participants perceived infrastructure quality to positively affect program delivery, others disagreed. Similarly, opinions varied concerning the impact of adequate resource allocation on program effectiveness, with some indicating positive impacts while others disagreed. Additionally, participants recognized the potential of technology and transportation availability to enhance program reach and impact. Leveraging these resources is essential to optimize program delivery and effectiveness in urban settings. These findings highlight the complex interplay between infrastructure, resource allocation, and program effectiveness, emphasizing the need for comprehensive strategies to address infrastructure gaps and ensure adequate resource allocation to support community health education initiatives in urban areas. Further research and targeted interventions are needed to address these disparities and promote inclusive access to health education opportunities for all individuals, irrespective of their environmental conditions.

5.3 Recommendations

5.3.1 Effect of Socioeconomic Status on Community Health Education Programs in Urban Areas.

The research concluded that community health education initiatives in cities are negatively impacted by socioeconomic gaps and offered several solutions to this problem. To begin, the research recommended addressing the unique needs of people from various economic brackets via the use of customized interventions. In order to make sure that people from all socioeconomic levels may participate in health education programs, it may be necessary to create individualized lesson plans and outreach plans. Additionally, the research suggested

that in order to help underprivileged communities get access to healthcare, community groups, healthcare professionals, and government agencies should work together more closely. In order to lower the obstacles to program participation for persons from low-income families, the research thirdly suggested creating financial support programs or subsidies. Lastly, the research suggested that in order to track how well programs are doing and find ways to make them even better at reducing socioeconomic gaps in health education, assessments and evaluations should be done on a regular basis.

In addition to these recommendations, the study also suggested fostering community empowerment and engagement initiatives to mobilize support for health education programs and address social determinants of health. This may involve empowering community leaders and grassroots organizations to advocate for resources and policy changes that support health equity and access to education. Furthermore, the study recommended promoting economic development and job opportunities within urban communities to address underlying socioeconomic factors influencing health outcomes. Finally, the study emphasized the importance of ongoing research and data collection to better understand the complex interactions between socioeconomic status and health education access, informing the development of targeted interventions and policies to promote health equity in urban areas.

5.3.2 Effect of Health Literacy Levels on Community Health Education Programs in Urban Areas.

Based on the findings, the study recommended several strategies to improve health literacy levels and enhance the effectiveness of community health education programs in urban areas. Firstly, the study suggested developing and implementing culturally sensitive and linguistically appropriate program materials to ensure accessibility and comprehension among diverse populations. This may involve collaborating with community members and stakeholders to co-create educational resources that resonate with the target audience's cultural norms and language preferences. Secondly, the study recommended integrating health literacy assessment tools into program evaluations to identify individuals with low health literacy levels and tailor interventions to meet their specific needs. Thirdly, the study

proposed implementing educational initiatives to enhance digital and health literacy skills, empowering individuals to navigate health information independently and make informed decisions about their health.

Additionally, the study recommended expanding partnerships with local libraries, community centers, and educational institutions to increase access to health literacy resources and workshops. These collaborations may provide opportunities for individuals to access additional learning materials and receive hands-on support in improving their health literacy skills. Furthermore, the study emphasized the importance of leveraging technology, such as mobile health applications and online platforms, to deliver health education content in innovative and interactive ways. By embracing technology-driven approaches, health education programs can reach a wider audience and engage individuals in learning activities tailored to their literacy levels and preferences. Overall, these recommendations aim to address health literacy barriers and promote equitable access to health education opportunities for all individuals in urban communities.

5.3.3 Effect of Availability of Healthcare Facilities on Community Health Education Programs in Urban Areas.

Based on the findings, the study recommended several strategies to address barriers related to the availability of healthcare facilities and enhance the effectiveness of community health education programs in urban areas. Firstly, the study suggested improving the geographic distribution of healthcare facilities and services to ensure equitable access for all residents, particularly those in underserved areas. This may involve incentivizing healthcare providers to establish clinics and health centers in areas with limited access and implementing mobile health services to reach individuals in remote or rural locations. Secondly, the study recommended enhancing the quality and capacity of existing healthcare facilities through investments in infrastructure, staffing, and technology. By improving facility infrastructure and resources, healthcare providers can deliver higher-quality services and support the delivery of comprehensive health education programs.

Additionally, the study recommended implementing transportation assistance programs or shuttle services to address mobility challenges and facilitate access to healthcare facilities

and program venues. By providing transportation options for individuals with limited mobility, health education programs can increase participation rates and reach underserved populations more effectively. Furthermore, the study proposed enhancing community outreach and engagement efforts to raise awareness about available healthcare services and health education programs. This may involve partnering with community organizations, faith-based groups, and local leaders to disseminate information, conduct health screenings, and promote program participation. Overall, these recommendations aim to improve healthcare accessibility and engagement in urban communities, ultimately enhancing the impact and effectiveness of community health education initiatives.

5.3.4 Effect of Infrastructure and Resources on Community Health Education Programs in Urban Areas.

Based on the findings regarding Objective Four, the study recommended several actions to address infrastructure and resource-related challenges and enhance the effectiveness of community health education programs in urban areas. Firstly, the study suggested investing in infrastructure improvements to enhance the quality and accessibility of program venues and facilities. This may involve renovating existing community spaces, such as libraries or community centers, to create conducive environments for health education activities. Additionally, the study recommended increasing funding allocations for community health education initiatives to ensure adequate resources for program planning, implementation, and evaluation. By prioritizing resource allocation to health education programs, stakeholders can support the delivery of high-quality and sustainable initiatives that address the diverse needs of urban populations.

Furthermore, the study recommended leveraging technology and digital platforms to expand program reach and engagement. This may include developing online learning modules, hosting virtual workshops, and utilizing social media platforms to disseminate health education content and facilitate community interactions. Additionally, the study proposed fostering partnerships with private sector organizations and philanthropic entities to secure additional funding and resources for health education initiatives. By collaborating with external stakeholders, health education programs can access additional expertise,

resources, and support to enhance their impact and sustainability in urban communities. Overall, these recommendations aim to address infrastructure and resource-related barriers and promote the delivery of effective and accessible community health education programs in urban areas.

5.4 Suggestions for Further Study

For future research endeavors, the study suggests exploring long-term impacts of health education interventions on health outcomes and behavior change among urban populations can provide valuable insights into program effectiveness and sustainability.

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APPENDIX I

QUESTIONNAIRE COVER LETTER

Dear Participant,

Using the Lang'ata Constituency in Kenya as a case study, we are investigating the obstacles encountered by community health education initiatives in metropolitan regions. Help us understand the challenges facing community health education programs by taking part in this research; your time is much appreciated.

All information you submit will be used only for research purposes, and your answers will be kept in the strictest confidence. Your involvement is entirely optional, and you are free to stop at any moment without penalty.

Fill out the attached survey completely and truthfully, taking your time to do it well. Community health education initiatives may be made more successful with your cooperation in identifying problem areas and developing solutions.

Thank you for your cooperation and support in this important research endeavor.

Sincerely,

Quresha Ali Abdille
DHD/14/00104/1/23
Student The Management University of Africa
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APPENDIX II

QUESTIONNAIRE

Thank you for agreeing to participate in our study on the challenges facing community health education programs in urban areas. Your input is crucial in helping us understand and address these issues effectively. Please take a moment to complete the following questionnaire. Your responses will be kept confidential.

Section One. Demographic Information

Gender:

a) Male { }
b) Female { }

Age:

a) 18-25 years { }
b) 26-35 years { }
c) 36-45 years { }
d) 46-55 years { }
e) 56 or older years { }

Education Level

a) Primary School Level { }
b) Secondary School Level { }
c) Collage/Diploma Level { }
d) Undergraduate/Degree Level { }
e) Graduate/Masters Level { }
f) Post Graduate/ PHD Level { }

Length of Residency in the Lang'ata

a) Less than a year { }
b) 1-3 years { }
c) 4-6 years { }
d) 7-9 years { }
e) 9 and above years { }

Section Two Study Variables

Objective 1: Effect of socioeconomic status on community health education programs in urban areas

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Agree, 2 = Agree, 3= Neutral, 4= Disagree and 5= Strongly Disagree

Statement	1	2	3	4	5
The community health education programs adequately address the needs of individuals from different income levels.					
The materials provided in the community health education programs are easily understandable regardless of educational background.					
Participation in community health education programs positively impacts employment opportunities for individuals.					
Improved housing conditions positively influence participation in community health education programs.					
Individuals have access to the necessary resources to actively engage in community health education programs.					

Objective 2: Effect of health literacy levels on community health education programs in urban areas

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Agree, 2 = Agree, 3= Neutral, 4= Disagree and 5= Strongly Disagree

Statement	1	2	3	4	5
The information provided in community health education programs is presented in a way that is easy to read and understand.					
Community health education programs have enhanced understanding of various health-related topics.					
Feel adequately informed about health-related issues through participation in community health education programs.					
The materials provided in community health education programs are presented in a way that can easily be comprehended.					
Participation in community health education programs has positively influenced health-seeking behavior.					

Objective 3: Effect of availability of healthcare facilities on community health education programs in urban areas

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Agree, 2 = Agree, 3= Neutral, 4= Disagree and 5= Strongly Disagree

Statement	1	2	3	4	5
The proximity of healthcare facilities influences participation in community health education programs.					
The quality of services provided by healthcare facilities impacts the effectiveness of community health education programs.					
Adequate staffing levels in healthcare facilities contribute to the success of community health education programs.					
The availability of necessary equipment in healthcare facilities enhances the impact of community health education programs.					
Accessibility barriers to healthcare facilities hinder participation in community health education programs.					

Objective 4: Effect of infrastructure and resources on community health education programs in urban areas

Kindly respond on this section based on the above objective by ticking on the appropriate box that best matches your opinion on a scale of 1 to 5 where 1= Strongly Agree, 2 = Agree, 3= Neutral, 4= Disagree and 5= Strongly Disagree

Statement	1	2	3	4	5
The quality of infrastructure in urban areas affects the delivery of community health education programs.					
Adequate allocation of resources to community health education initiatives improves their effectiveness.					
Access to technology enhances the reach and impact of community health education programs.					
Availability of transportation facilitates access to community health education program venues.					
Strong community support fosters the success of community health education programs in urban areas.					

Thank You for Your Participation

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Summary