

**SEXUAL HEALTH SEEKING BEHAVIOUR AMONG
YOUTH IN SECONDARY SCHOOLS IN MUKURU
SLUM, NAIROBI, KENYA**

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(Public Health)**

**JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY**

2024

**Sexual Health Seeking Behaviour among Youth in Secondary
Schools in Mukuru Slum, Nairobi, Kenya**

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**A Thesis Submitted in Partial Fulfilment of the Requirements for
the Degree of Master of Science in Public Health of the Jomo
Kenyatta University of Agriculture and Technology**

2024

DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

I dedicate this thesis to God Almighty, my Creator, and firm foundation, who has been my constant source of strength and resilience, especially during times of trial. Throughout this study program, even in the face of a challenging cancer diagnosis and treatment, God has provided me with unwavering support, inspiration, knowledge, wisdom, and healing. He has been my strong pillar, guiding me with His grace. Truly, He has been my Ebenezer—my help and sustainer. I give Him all the glory and honor, for it is by His hand that I have come this far.

ACKNOWLEDGMENT

This thesis would not have been possible without the support of many individuals. My deepest gratitude goes to my supervisors, Dr. Mutai and Prof. Makokha, for their invaluable guidance, support, and countless revisions that helped me navigate through confusion and find clarity.

Dr. Mutai, I cannot thank you enough for holding my hand throughout this journey. During the overwhelming experience of my cancer diagnosis and treatment, your encouragement, patience, and reassurance motivated me to persevere and complete this work.

I sincerely thank my dad, mom, and siblings for their unwavering support and encouragement.

To my husband, Ben, thank you for enduring this long process with me, and always offering love, support, and motivation. Your encouragement gave me the strength to finish what I started. To my children, Kyle (Wuod Ojiem), Laura (Dana Nyoyueya), and Amor (the Great Prince), love and appreciate you. This journey affected you in countless ways, yet you understood and stood by me. My family, my wonderful children, and my love—your contributions are beyond measure.

God bless you all.

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ACRONYMS AND ABBREVIATIONS

AFY	Advocates for Youth
ARH	Adolescent Reproductive Health
BCC	Behavior Change Communication
CA	Child AID
CBS	Central Bureau of Statistics
CSOs	Civil Society Organizations
DHMT	District Health Management Team
DRH	Department of Reproductive Health
FAWE	Federation of African Women Educationists
FGD	Focus Group Discussion
GOK	Government of Kenya
HIV/AIDS	Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome
KAIS	Kenya AIDS Indicator Survey
KDHS	Kenya Demographic and Health Survey
KSPA	Kenya Service Provision Assessment
LHO	London Health Observatory
NASCOP	National AIDS and STI Control Programme
NERC	National Ethical Review Committee
NGOs	Non-Governmental Organisations
NHPC	National and Housing Population Census
PMTCT	Prevention of Mother to Child Transmission

RH	Reproductive Health
SPSS	Statistical Package for Social Science
SRH	Sexual Health Services
STDs/STIs	Sexually Transmitted Diseases/Sexually Transmitted Infections
UN	United Nations
UNAIDS	United Nations Programme on HIV and AIDS
UN-HABITAT	United Nations Human Settlements Programme
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

DEFINITION OF OPERATIONAL TERMS

- Sexual Health** A condition where there is freedom from sexual diseases or disorders and a capacity to enjoy and control sexual behavior without fear, shame or guilt (WHO, 1974).
- Sexual Health Seeking Behaviours** This comprise of what people do to prevent an illness and what they do when they suspect they are suffering from an illness, and includes the early recognition of symptoms, presentation to health facilities and compliance with effective treatment.
- Self-Treatment** This is the act or an instance of medicating oneself or treating one's own disease without medical supervision or intervention.
- Slums** Slum is an urban area characterized by lack of basic services such as sanitation, portable water, and electricity, substandard housing which are of poor structural quality of housing, overcrowding, unhealthy and hazardous locations, insecure residential status (tenure) and social exclusion (UN HABITAT,- 2003).

ABSTRACT

Sexual reproductive health within the youth population is increasingly becoming a public health concern, more so low-income settings with overwhelmed healthcare systems. The aim of this study was to comprehensive investigate sexual health-seeking behaviours among adolescents and youth between 15 24 years in secondary schools within Mukuru slum, Nairobi Kenya. This was a descriptive cross-sectional design employing qualitative and quantitative methods. It targeted 327 students and collected data using stratified sampling, and a response rate was 97.3%. The study also used structured questions alongside focus group discussions in collecting data. The basis of this study is how youth in slum dwellings are at risks of developing sexually transmitted infections (STIs) and HIV from socio-economic challenges and limited healthcare service accessibility. Interventions exists but the prevalence of these infections are still at large. Central to this study was to also determine factors determining health-seeking behaviours among secondary school youths in Mukuru slums. Its objectives included: “(1) determine the socio-demographic characteristics of the youth, (2) assess their practices towards seeking sexual health services, (3) evaluate their attitudes towards these services, (4) examine the impact of sexual health service outlets, and (5) identify choices related to seeking sexual health services”. It used a cross-sectional design, with qualitative and quantitative methods used in collecting data. The participants included youths between 15 and 24 years attending secondary schools in Mukuru after consenting to participate and excluded those who declined consent. Besides, the study used stratified sampling to determine the sample size, with 336 students. Structured questionnaires, focus group discussions and key informant interviews were used in collecting data. It took over three months to collect data. Relevant institutional body provided the ethical approval and the study maintained confidentiality of the participants through anonymity. The researcher used SPSS to analyse the questionnaire data to obtain descriptive statistics and used thematic analysis for qualitative data analysis. The study found that 57.8% of respondents were female, with 18.9% of female respondents reporting sexual debut before age 10. Condom use was reported by only 20% of respondents aged 15-18 during their last sexual encounter. Among those who contracted STIs, 58.5% completed treatment, with the type of treatment outlet significantly associated with treatment completion ($p = 0.033$). The study revealed widespread engagement in unprotected sex and multiple sexual partnerships among youth, with attitudes towards sexual health significantly influencing their practices. A major conclusion from this study is the higher risks and vulnerability of youth in Mukuru slums as being at risk of developing STIs due to low condom usage, early sexual activity onset and multiple sexual partners. Both individual attitudes and systemic barriers shape their health-seeking behaviours. The study recommends the collaboration between the Ministry of Health and Ministry of Education in establishing and implementing school-based health clinics and interventions to offer comprehensive SRH services. They also need to target policy interventions on improved access and education on sexual health services within slum dwellings. The study has also considered why policy reforms are needed for improving sexual health education and services within slums. Such is also meant to ensure access, affordable and youth-friendly sexual health services.

CHAPTER ONE

INTRODUCTION

1.1 Background

Sexually transmitted infections (STIs) are huge socio-economic and health concerns that have threatened health systems and service provision in many developing countries. According to World Health Organisation, STIs remained a significant global health concern, reporting around 374 million new infections of syphilis, gonorrhoea, chlamydia and trichomoniasis annually occurring among individuals aged between 15 and 19 years. The World Health Organisation further their impacts on life stages, including children, adolescents and adults, more so severe implications for their reproductive health (WHO, 2022). In sub-Saharan Africa, adolescents between 15 and 19 years accounted for 42% of new HIV infections in 2022, highlighting the disproportionate burden of STIs on youth in the region (WHO, 2023). Newton-Levinson, Leichter and Chandra-Mouli (2017) further noting how most of the infections were reported among those aged between 15 and 19 years, and an alarming 70% of the infections reported among those between 15 and 24 years old. The prevalence of STIs in developing countries has introduced an immense burden of mortality and morbidity both directly, through the impact of the infections of the child and reproductive health, and indirectly, through its part in the facilitation of the transmission of HIV. A study by Cohen, Council and Chen (2019) shows that untreated gonorrhoea can amplify a person's chance of getting or transmitting HIV which in itself is a global health concern despite concerted efforts to address it.

Global reports have confirmed 38.4 million living with HIV for the latest statistics of 2021, but there was a 54% reduction in new HIV infection rates. For these new infections, 49% were attributed to girls and women (UNAIDS, 2023). Furthermore, the youth has been responsible for a greater share of these infections, a half of new infections particularly attributed to the youth. Reports also confirm the higher susceptibility of women of reproductive age, between 15 and 49 years as having AIDS-related illnesses, currently responsible for global mortality rates, and this disease or infection has been the second leading mortality causes for women between 15 and 24

years in Africa (UNAIDS, 2022). Reports in sub-Saharan African confirmed that 6 in 7 new HIV infections within a cohort of adolescents between 15 and 19 years are reportedly among girls, with young girls and women between 15 and 24 threefold likely to contract and live with HIV than young men in the same cohort or age group. Despite the improving health among the youth in developing countries and better transition to adulthood to survive to old age, both HIV/AIDS and maternal mortality as well as morbidity has continuously threatened their reproductive health (UNAIDS, 2023).

From 2018 to current, the Kenya Indicator Survey data shows that though there was some difference in the prevalence of HIV between 15-19 years olds (2.3%) and 20-24year olds (5.2%) (NASCO, 2018; KNBS, 2023), it is clear that the youth is generally more vulnerable to HIV infections largely because of their sexual behaviour. A study focused in South Africa confirms the ongoing vulnerability of youth to HIV infection, mostly reported among adolescent young females in the 15-24 age bracket. The HIV prevalence was reportedly higher in prevalence among younger women between years than 15 and 19 years. Furthermore, the 2022 KDHS report noted that HIV was still a serious problem and concern in public health, mostly affecting the youth in urban centres despite over half of this population understanding approaches to preventing HIV (54% of women and 55% of men). The report further noted that 57% young women and 63% young women understood and acknowledged HIV prevention than 52% rate among young women and 51% among younger men within rural areas. Furthermore, as a county, Nairobi reported highest sexually active young women proportions engaging in higher-risky sexual behaviours (45%) (KNBS, 2023).

Despite the continued critical need for sexual and reproductive health (SRH) insight or knowledge and services within the youth remaining crucial, there are serious challenges and barriers existing on accessing these services. Recent studies highlight that these barriers include inconveniently located facilities, high costs, and restrictive policies that limit youth access to essential health services (Embleton, Langat, & Otieno, 2023). For instance, despite Kenya's introduction of the Life Skills Education (LSE) program in 2018, aimed at addressing the SRH knowledge gap among adolescents, the program's focus has primarily been on promoting abstinence rather

than providing comprehensive SRH education. Therefore, the limitation is a challenge to confronting the young people's sexual health needs in Kenya. This has left a serious limitation and gap in the innate ability of this cohort to make the necessary and informed decisions on their sexual health (Embleton, Langat, & Otieno, 2023; Langat, Embleton, & Otieno, 2024).

According to the World Bank (2019) and KDHS (KNBS, 2023), the rates of adolescent fertility in Kenya is relatively high with 82/1000 live births among women between 15 and 19 when compared to 44/1000 live births for women in the same age group globally. This is an indication that youth engage in sex at early ages, a practice that can result in early pregnancies whose consequences leave girls in more social and health problems. Further, the 2022 KDHS report shows a 15% rate of women aged between 15 and 19 as pregnant, with 12% reporting successful live birth, 1% loss in pregnancy and 3% pregnant at the point when the data was collected (KNBS, 2023). Neal, Chandra-Mouli and Chou (2015) observed that pregnancy among school going girls forces stop attending school, further perpetuating the vicious cycle of poverty and increasing vulnerability to risky behaviours. Reports equally indicate how abortion, complication associated with SRH, has become a serious concern and leading causes of emergency gynaecological admissions at Kenyatta National Hospital (KNH), Nairobi.

Recent studies confirm that abortion-related complications continue are high ranking causes of gynecological admissions in Kenya, particularly among young women. For instance, the African Population and Health Research Center (APHRC) alongside partners revealed that approximately 40.1% of women seeking post-abortion care experienced moderate complications, while 37.1% faced severe complications (Kenya. Ministry of Health, APHRC, 2021). The majority of these cases involved young women, highlighting the persistent issue of unsafe abortions in this demographic (Ziraba *et al.*, 2022). Despite the significant health risks, Kenya's current adolescent sexual and reproductive health programs have not adequately addressed information and services dissemination linked to abortion and complications. Hence, young women have been profoundly left vulnerable and at-risk.

Adolescent pregnancy significantly contributes to school dropouts among girls in Kenya, particularly in regions, with limited accessibility to comprehensive SRH information, services and education (UNFPA, 2024). Research by Wado, Sully and Mumah (2019) found that early childbearing is a major factor leading to school discontinuation, especially in urban slums like Nairobi, where resources and support systems are scarce. Similarly, Hubacher, Olawo, Manduku, Kiarie and Chen (2020) highlighted that in rural areas, the situation is exacerbated by socio-cultural factors and inadequate health services, resulting in high dropout rates among teenage mothers. Particularly, the studies have stressed an inherent need for targeted interventions not only providing education but equally addressing the complex health and social challenges lead responsible for early teenage pregnancies. Effective programs have shown that reintegrating young mothers into the education system, coupled with providing them with necessary health services, which can reduce repeat pregnancies rates and their educational and training outcomes (Wado *et al.*, 2019; Hubacher *et al.*, 2021).

Other researchers considered the complexity in relationship between adolescent behavior and school environment as relating to sexual behaviors among sub-Saharan African countries. Yakubu *et al.*, (2019) performed a cross-sectional study in Ghana with reports on associated relationship between school attendance and delayed sexual activity among adolescents. Being in school for these adolescents related to a 41% less likelihood to engage in sexual activity than out-of-school peers. This highlights the protective role that school environments can play in adolescent sexual health. However, the same study noted that peer pressure within schools remained a significant factor influencing sexual behavior, with 28% students who were sexually active reported that peer pressures led them to engage in sexual intercourse.

Other research also explored how school-based interventions impacted adolescent sexual behavior. Sani *et al.* (2016) examined how school-based SRH education programs within the sub-Saharan African region were effective. The review reported that comprehensive sexuality education programs in schools were associated with increased their sex and reproductive health knowledge and insight, improved attitudes towards contraception, and in some cases, delayed sexual debut. However, the impact

on actual contraceptive use and reduction in teenage pregnancies was less consistent across studies. The authors emphasized that multidimensional approaches for addressing both individual attitudes and knowledge but also the broader social environmental factors and issues. They noted that programs involving peer education and community engagement showed more promising in behavioral change.

Atuyambe *et al.*, (2015) targeted adolescents between 10 and 19 in Uganda, with their reports indicating that for adolescents, in and out of school, the main health problems confronting the population was HIV/STIs, unplanned pregnancies. For females, they had to grapple with the challenge of the endless sexual advances from male adults and fellow adolescent males. Females or young girls were also worried about rape and defilement as well as alcohol and substance abuse or use. For their reproductive health needs, the study further confirmed ranging problems including limited condoms, inadequate youth medical services and post-abortion and the need for counselling services. Accordingly, they confirmed the prevalence of STIs as a serious public health issue worldwide, whereby low-income countries reported a majority of the cases. Accordingly, STI are caused by infectious agents like fungi, protozoal, bacterial, and viral agents. Studies have shown that STIs, especially when they are not adequately treated, can lead to serious impact such as infertility, ectopic pregnancy, stillbirths besides increasing the risk of getting HIV (Katusiime *et al.*, 2016; WHO, 2022).

Adolescents living in urban slums face significant challenges, particularly concerning SRH. In Nairobi, Kenya, Wado *et al.*, (2019) exposed that adolescents in slum areas are exposed to multiple vulnerabilities that heighten their risk of poor SRH outcomes. They also noted that 41% of teenagers in these areas had experienced sexual debut by age 18, with 42% of sexually active girls reporting unintended pregnancies. These alarming rates were linked a variety of factors including poverty, limited SRH service accessibility and low attainment of education. Supporting these findings, a systematic review by Amongin *et al.*, (2020) across sub-Saharan Africa highlighted that adolescents in urban slums are particularly prone challenges and issues like early sexual intercourse, unplanned pregnancies and STIs out of economic hardships, social disorganization and limited access to healthcare. The review indicated that girls in

slum settings were 1.5 likely to suffer teenage pregnancy compared to non-slum colleagues.

Additionally, Kabiru *et al.*, (2022) focused on Kenyan urban slums and reported that economic pressures significantly shapes adolescent sexual decision-making, where 35% of sexually active youth conformed that they considered transactional sex to survive the hard economic times. These findings underscore the complex interplay between socioeconomic factors and risky sexual behaviors among adolescents within deprived urban dwellings. As such, it has stressed the need to have and ensure comprehensive interventions addressing structural and individual sexual health determinants.

Challenges that youths experience in accessing reproductive and sexual health services in Kenya have been persistent, despite some improvements. Godia *et al.*, (2013) postulated that although youth-friendly services have increased, significant barriers remain. The study revealed that 38% of young people perceived healthcare providers as judgmental or unfriendly, and 45% identified a lack of privacy as a major concern when seeking SRH services. In the realm of education, KDHS reported progress in gender parity, with a net attendance ratio for secondary school at 37% for both girls and boys (KNBS and ICF, KDHS, 2022). However, challenges continue, as highlighted by a 2022 study by Zulaika *et al.*, which found that 10.8% of girls aged 15-19 discontinued schooling due to pregnancy, underscoring the ongoing impact of teenage pregnancies on girls' education.

Regarding HIV/AIDS knowledge, there have been improvements, though gaps remain. The KDHS, 2020 indicated that comprehensive knowledge about HIV prevention among youth aged 15-24 has risen to 61% for women and 66% for men, a marked improvement from the 2008-09 data. Nevertheless, a study by Mwangi (2022) identified persistent misconceptions, with 23% adolescents being certain of HIV transmission through mosquito bites. This study also found between limited HIV knowledge and risky sexual health behaviors, highlighting the continued need for education efforts. Moreover, a report by the National Syndemic Diseases Control Council of Kenya (2023) emphasized that gender-based violence is still a significant

barrier to safe sex practices, with 33% of young women reporting experiences of physical or sexual violence, which adversely affects their ability to negotiate safe sex.

1.1.1 Background of Mukuru Slum

Mukuru slum, located on the south-eastern edge of Nairobi, among the largest and an informal settlement with dense population in Kenya. It is estimated that over 700,000 people live within its congested boundaries, enduring severe socio-economic hardships (UN-Habitat, 2021). The slum is divided into several villages, each characterized by inadequate infrastructure, including concerns with lack of clean water or limited access and poor sanitation. These conditions contribute higher communicable disease prevalence, especially waterborne disease, respiratory infections and STIs, particularly among the youth (APHRC, 2019).

The population in Mukuru is predominantly young, with nearly 60% of residents aged between 15 and 30 years (KNBS and ICF, KDHS, 2022). The youth in Mukuru face numerous challenges, including unemployment, early sexual debut, and limited access to education, all of which are compounded by the harsh living conditions. These factors create a vulnerable environment, with high prevalence of risky sexual behaviours like multiple sex partners and unprotected sex (Mutua *et al*, 2023).

Accessing SRH services within the Mukuru slum region is limited and severely constrained. The slum is served by a few under-resourced health facilities, and many residents rely on informal providers or self-medication for health issues (WHO, 2018). Stigma and cultural barriers further discourage youth from seeking sexual health services, leading to delayed treatment and an increased risk of complications from STIs, including HIV/AIDS (NASCO, 2019).

Moreover, the economic hardships in Mukuru exacerbate make the young people innately vulnerable to sexual exploitation and risks for early pregnancies, which further limits their educational and economic opportunities (Kabiru *et al.*, 2013). The intersection of poverty, lack of access to services, and social stigma creates a complex landscape that significantly further impacting Mukuru's youth sexual health-seeking behaviours.

In light of these challenges, the subsequent research intends to provide a comprehensive insight into the sexual health-seeking behaviors among youth in Mukuru slum. Targeting and assessing socio-demographic factors, barriers and attitudes, this will provide more information and understanding for informing the development of proper and effective interventions for improving SRH outcomes among the vulnerable population.

1.2 Statement of the Problem

Limited propensity to seek sexual health services among adolescents and youth is becoming a serious concern in most urban settings, especially low-income countries. Therefore, the purpose of this study was on addressing the issue. It did so by targeting the youth between 15 and 24 years in Mukuru slum, Nairobi Kenya. Sexual health seeking behavior involves a variety of actions for protecting sexual health, especially accessing preventive services, seeking information and accessing key information on treatment and intervention against sexual health challenges.

The magnitude of this problem in Mukuru slum is significant, both in terms of health burden and lack of knowledge. Quantitatively, data from the Nairobi City County Health Department (2022) reveal that only 28% of sexually active youth in Mukuru confirmed to testing for HIV than the 53% national average for the same cohort or age group. STIs prevalence in Mukuru's youth is around 25%, higher than 15% as the county average (Kabiru *et al.*, 2022). Furthermore, the rate of unintended pregnancies among adolescent girls in Mukuru stands at 37%, almost double the national average of 18% (KDHS, 2022). In terms of knowledge gaps, Mutumba *et al.*, (2022) reported that only 32% of youth in could correctly identify all modes of HIV transmission, indicating significant misinformation and lack of awareness.

The consequences of not addressing this problem are severe and far-reaching. At the individual level, youth in Mukuru face increased risks of STIs, including HIV, and unintended pregnancies, which can have long-lasting impacts on their health, education, and economic prospects. Ochako *et al.*, (2023) projected that if current trends continue, up to 35% of young women in urban slums like Mukuru had a higher likelihood of experiencing unplanned pregnancy before 20 years, potentially leading

to school dropouts and perpetuating poverty cycles. Within the community levels, the high burden of SRH issues among youth strains the already limited healthcare resources in the slum. Ziraba *et al.*, (2015) estimated that treating STIs and complications from unsafe abortions among youth in Nairobi's slums could consume up to 22% of the total healthcare budget allocated to these areas by 2025. From a public health perspective, the failure to address these issues undermines broader efforts for controlling STIs from spreading and reduce maternal and child mortality rates in urban poor settings.

To address this complex problem, comprehensive, context-specific research must be pursued for exploring and examining complex factors influencing youth's sexual health-seeking behaviors in Mukuru slum. Although Beguy *et al.*, (2013) and Mumah *et al.*, (2022) explored aspects of youth sexual health in urban slums, a key barrier continues to exist, especially in knowledge gap about specific barriers and factors facilitating sexual health-seeking behaviors in Mukuru slums as a unique context or setting. Kimani *et al.*, (2023) stressed a need to consider and use mixed-methods research or study for understanding how social, individual and structural factors affect youth sexual health within urban dwellings or slum settings.

1.3 Justification of the Study

Youth in secondary schools in slums are among the population categorized as being susceptible to sexual health problems. The risky sexual activities resulting in sexual-related health problems such as STIs and HIV/AIDS, if left unaddressed, pose a great challenge to the socio-economic, health, growth, and development of mainly the youth. In this case, a proper understanding and responding to SRH needs and concerns in specific adolescent from resource-limited urban settings should be a research priority. Urban poor well-being is one of the indicators for national development. This include health and poverty which needs a proper balancing for ensuring or guaranteeing a productive and energetic future workforce. Besides, by having a healthy future generation, a lot of savings is made that would go into health care expenditure of the sick thus economic development in Kenya.

Teenage pregnancy has influenced and coerced many young girls to drop-out of school. The estimation from population surveys like the KDHS, estimate that the age of sexual debut among young boys and girls is relatively low and the proportion of teenagers who are sexually active is comparatively high. The findings are expected to contribute guidance to the design and implementation of appropriate sexual reproductive health intervention programs that respond to the unique needs of secondary school-going youth in slums.

This study sought to also provide information about the outlets for sexual health services within the slums and provide information about the choices secondary school-going students make about seeking sexual health services to provide useful information to parents, guardians, and the political leadership for decision making. These findings can also be used by policymakers in charting the best strategies and policies to address sexual behavioural issues and challenges among youth in secondary schools, especially those situated in slum dwellings.

1.4 Objectives

1.4.1 General Objective

To establish sexual health-seeking behaviour among youth aged 15-24 years in secondary schools in Mukuru slum, Nairobi.

1.4.2 Specific Objectives

- i. Determining the socio-demographic characteristics of adolescents in secondary schools, Mukuru slum, Nairobi.
- ii. To ascertain the sociodemographic traits of young people attending secondary schools in Nairobi's Mukuru slum
- iii. To ascertain how young people in Nairobi's Mukuru slum go about obtaining sexual health care in secondary schools.
- iv. To determine how young people in Nairobi's Mukuru slum feel about obtaining sexual health treatments in secondary schools

- v. To identify locations for youth sexual health services in Nairobi's Mukuru slum secondary schools.
- vi. To ascertain the choices made by young people attending secondary schools in Nairobi's Mukuru slum on accessing sexual health treatments.

1.5 Research Questions

- i. What sociodemographic traits do young people in Nairobi's Mukuru slum attend secondary schools?
- ii. How do young people in Nairobi's Mukuru slum go about getting sexual health care in secondary schools?
- iii. How do young people in Nairobi's Mukuru slum feel about accessing sexual health treatments in secondary schools?
- iv. Where may young people in Nairobi's Mukuru slum's secondary schools access sexual health services?
- v. What decisions do young people in secondary schools in Nairobi's Mukuru slum, aged 15 to 24, make on getting sexual health services?

1.6 Assumptions

This study operated under several key assumptions that were crucial to its design and implementation. These assumptions were carefully considered throughout the research process, further ensuring valid and reliable findings.

Firstly, the researcher assumed that the participants, despite the sensitive nature of the topic, they provided honest and accurate answers to the survey items and during focus group discussions. This assumption was based on the understanding that appropriate measures had been taken to ensure confidentiality and create a non-judgmental environment conducive to open dialogue. To support this assumption, the study implemented rigorous confidentiality protocols, including anonymous data collection methods and secure data storage procedures. Additionally, all interviewers and focus group facilitators underwent extensive training in sensitive topic handling and creating rapport with participants.

Secondly, the study equally ensured a representative sample of the adolescent or youth population in Mukuru slums. Despite using stratified sampling technique to ensure a diverse and representative sample, achieving perfect representation was not tenable because the slum's population is complex and dynamic. This was then addressed by comprehensively describing the sampling methodology and limitations in the methodological section. Hence, the readers could assess whether the findings could be generalized to the specific population.

Third, the study assumed that Mukuru slum's socio-cultural context influenced the youth's sexual health-seeking behaviors. This was based on existing literature that showed how social and environmental factors impact on health behaviors, especially resource-limited areas and settings. In validating the assumption, qualitative methods were used, including engaging community leaders and healthcare providers in in-depth interviews for gaining an understanding and insight into the underlying socio-cultural factors influencing Mukuru slum youth's sexual health behaviors.

Lastly, the study assumed that the theoretical frameworks employed, Social Ecological Model and Health Belief Model, were applicable and relevant to understanding sexual health-seeking behaviors in this specific context. While these models have been widely used in health behavior research, their applicability in the unique setting of urban slums in Kenya might vary. To address this, the study included a critical analysis of the models' applicability in the discussion section, highlighting both their strengths and limitations in explaining the observed patterns of health-seeking behaviors among Mukuru youth.

These assumptions guided the research methodology and were critically examined throughout, part of measures for ensuring that the findings have greater reliability and validity. The limitations section of the thesis addressed any potential impacts these assumptions may have had on the interpretation of the results.

1.7 Limitations and Delimitations

1.7.1 Limitations

This study acknowledged several limitations that may have impacted the interpretation and generalizability of its findings. These limitations were carefully considered throughout the research process and were addressed to the extent possible.

Firstly, the sensitive nature of sexual health topics could have meant underreporting or serious problems and concerns with social desirability bias in responses. Despite efforts to create a comfortable and confidential environment for data collection, participants may still have been hesitant to fully disclose their experiences and behaviors related to sexual health. To mitigate this limitation, the study employed mixed methods, including surveys and confidential in-depth interviews, to allow for data triangulation. Additionally, the research team received specialized training in conducting interviews on sensitive topics to build rapport and trust with participants.

Conversely, the study's cross-sectional study was a limiting factor in establishing the causal link or relationships between the variables. Despite identifying the link between the factors, the temporal sequence of events could not be definitively determined. This limitation was particularly relevant when examining how attitudes, practices and health-seeking behaviors are linked. To address this, the discussion section of the thesis included a careful interpretation of the findings, avoiding causal claims and instead focusing on observed associations and potential mechanisms.

Accordingly, the study did use self-reported data, but such an instrumentation or approach can be affected by recall bias, especially when asking past experiences and behaviors among participants. The accuracy of such retrospective information may have varied, limited the findings' reliability. To minimize this limitation, the questionnaire was designed to focus on recent experiences where possible. Lastly, the dynamic nature of slum populations, characterized by high mobility and frequent changes in living situations, may have impacted the follow-up and long-term assessment of participants. This had the danger of affecting the ability of the research to comprehensively capture health-seeking behavioral changes over time.

1.7.2 Delimitations

To maintain a focused and manageable scope, this study established certain boundaries. These delimitations were necessary to ensure the feasibility and depth of the research while acknowledging that they may have excluded other important aspects related to SRH health among youth in different settings and contexts.

For one, this study only focused on adolescents between 15 and 24 in secondary schools in Mukuru slums. While this focus allowed for an in-depth examination of this specific population, this risked limiting the findings generalizability over other age cohorts or groups and different educational settings in other urban areas. The rationale for this delimitation was based on the high concentration of youth in this age group in Mukuru and their particular vulnerability to sexual health risks.

Secondly, this is primarily focused on sexual health-seeking behaviors and did not encompass all aspects of reproductive health. While this narrow focus enabled a detailed exploration of the topic, it may have excluded other important aspects of youth SRH that could have delivered a more comprehensive understanding of the issues at hand. The decision to focus specifically on sexual health-seeking behaviors was made based on the identified gap in the literature regarding this aspect of youth health in urban slum settings.

Thirdly, the study was limited to the geographical area of Mukuru slum in Nairobi. While this setting provided valuable insights into the challenges faced by youth in urban slums, these results could not be openly relevant to other slum settings or rural areas in Kenya or other countries. The choice of Mukuru was grounded on its representativeness of large urban slums in East Africa and the existing relationships with community organizations that facilitated access to the study population.

These delimitations were carefully considered in the design of the study and were explicitly stated to allow readers to evaluate the applicability of the findings in different contexts and settings. The discussion section of the thesis included a thorough examination of how these delimitations may have influenced the results and their interpretation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Background

Mostly, adolescents and young are at a critical stage where they face unique sexual and reproductive health challenges, heavily influenced by socio-demographic, cultural, and economic factors. In Kenya, these challenges are particularly pronounced due to limited access to healthcare services, pervasive poverty, and cultural norms that stigmatize discussions about sexuality. Recent research has focused on understanding these issues to inform more effective interventions.

Atuyambe *et al.*, (2015) focused on identifying the primary health issues affecting adolescents in both school and out-of-school settings. The study specifically focused on reproductive health challenges such as HIV/AIDS, STIs, unintended pregnancies, and sexual violence. This was a cross-sectional design, the study surveyed 1,200 adolescents across urban and rural settings in Uganda, using a mixed method combining qualitative and quantitative data collection methods. The study found that adolescents frequently faced reproductive health issues but often delayed seeking care due to barriers such as cost, lack of privacy, long queues, and stigma. A significant finding was that many adolescents lacked basic knowledge about STIs, which compounded their health risks (Atuyambe *et al.*, 2015). Despite these insights, the study had limitations, including a lack of longitudinal data to assess long-term health outcomes. However, there was no deeper exploration of the underlying socio-cultural factors influencing individual's health-seeking behaviours as one of the specific areas that this subsequent study sought to address.

Newton-Levinson, Leichter, and Chandra-Mouli (2016) also contributed to this study by exploring sexual and reproductive health issues and challenges among sub-Saharan African participants in Kenya. They used a mixed-methods approach using both focus group discussions and surveys to collect data from 800 adolescents in both rural and urban areas. It was also about identifying the specific barriers and challenges to accessing both sexual and reproductive health services, including the grave

implications of socio-economic factors. The participants confirmed specific challenges and barriers to accessing sexual and reproductive health services in Kenya, especially stigma, financial constraints, and lack of youth-friendly services. The study confirmed that female adolescents were particularly vulnerable to sexual violence and exploitation, which often went unreported due to fear of stigma. The research also identified a gap in the availability of comprehensive sexual education, which leaves many adolescents uninformed about their sexual health rights and options. While the study provided valuable insights, it primarily focused on broad trends rather than the specific experiences of adolescents in informal settlements like Mukuru.

Wong (2012) focused on a qualitative investigation and exploration of sexual attitudes and behaviours, including the use of contraceptives, targeting multiethnic young women in Malaysia. The study was informed by constructs from the Problem Behavioural Theory, Theory of Reasoned Action, and Health Belief Model. Through 34 focus group discussions with 185 participants from Malay, Chinese, and Indian ethnic backgrounds, the study uncovered significant gaps in knowledge regarding sexual health and contraception, leading to widespread reliance on ineffective traditional methods for pregnancy prevention. The study included key factors like religious beliefs and ethnicity, parental monitoring and peer pressure as barriers to using condom. Some of the barriers included embarrassment, efficacy of traditional contraceptive misconceptions and the perceived low risks of sexually transmitted diseases or infections. The findings highlight the need for culturally sensitive educational interventions to address these gaps and improve sexual health outcomes among Malaysian youth.

Mprah et al. (2019) investigated the accessibility of health services for young deaf adolescents in Ghana, focusing on their perspectives regarding barriers and needs in healthcare access. This quantitative study involved 67 participants, comprising 44 male and 23 female students, who shared their experiences within the framework of critical disability studies, which positions them as rights bearers. While many respondents reported not having difficulty accessing health facilities, they highlighted significant communication barriers that impeded their interactions with healthcare providers. The findings emphasized the necessity for improved communication

strategies, such as the integration of sign language interpreters and other accessible resources, to enhance health service delivery for young deaf adolescents. The study has a profound contribution to the broader debates on health equity and the need for inclusive practices to address the marginalized groups' unique needs in healthcare systems.

Amuyunzu-Nyamongo (2019) explored the socio-cultural factors influencing sexual health behaviours among Kenya's adolescent population. The authors incorporated a qualitative design through focus group discussions and in-depth interviews with adolescents from diverse socio-economic backgrounds. They used a thematic analysis method to analyse the data to identify the key socio-cultural norms and practices that impact sexual health behaviors. The study found that cultural norms around sexuality, particularly those that discourage open discussions about sex, significantly influenced adolescents' health-seeking behaviours. Female adolescents, in particular, faced pressure to conform to societal expectations of modesty, which often prevented them from seeking sexual health services. As such, this study confirmed the role of peer influence in shaping attitudes of adolescents towards sexual health and resulting behaviours.

Kibera and Nkuraiya (2019) contributed in this discourse and research exploration by providing a detailed analysis and understanding of how sanitary towels provision impacted school retention and overall academic performance for teenage girls, mostly targeting primary schools in Narok North Sub-County Kenya. This was a descriptive design study, with data collected from 110 randomly assigned and selected class seven girls participating in the project. The findings indicated that girls who received sanitary towels had significantly higher school retention rates and better academic performance compared to those who did not. The study's findings have shown how menstrual hygiene management in facilitating educational access for girls plays a key role, underscoring that inadequate resources can lead to absenteeism and hinder academic success. The authors recommend that school administrators and the government prioritize the provision of sanitary towels, likening it to essential resources like textbooks, to ensure that girls can fully participate in their education. This research aligns with broader discussions on gender equity in education and the necessity of

addressing socio-economic barriers to enhance educational outcomes for marginalized populations or informal settings.

Atuyambe *et al.*, (2015) and Levinson (2015), also reported a serious issue with HIV/STIs affecting adolescents alongside other challenges like sexual advancements from their fellow male students and adults. Further included in these challenges include rape, defilement, unplanned pregnancies, including drug and alcohol abuse. Serious challenges and issues revolve around failure to take action or acting later, or even worsening their problems when they visit these health facilities. Cost privacy, longer queues due to limited health centres or knowledge on STIs further worsened the conditions. Other issues were related to limited awareness on available STI services, healthcare provider stigma, which they did identify as serious barriers and limitations to seeking the much-needed and expected care (Atuyambe *et al.*, 2015; Levinson, 2015).

2.2 Practices Towards Seeking Sexual Health Services

Adolescent practices spanning sexual health services are defined and determined by different factors. These include service availability, attitudes and socio-cultural norms and values. Recent studies have presented insights into the practices including the adolescent-specific barriers to accessing sexual health services.

Sivakami *et al.*, (2019) investigated factors hindering adolescents menstrual hygiene management among Indian girls. The study aimed to understand how poor access to sanitary products and insufficient menstrual hygiene education affected the school attendance and health of adolescent girls. Employing a cross-sectional survey design, the study sampled 1,500 schoolgirls aged 12-17 from rural and urban areas. They used both quantitative and qualitative methods in analysing the data, focusing on thematic analysis and descriptive statistics. They did report how a significant number of girls had been missing school during their menstruation periods as they did not access sanitary products or crucially limited by hygiene facilities within their school contexts and environments. The research also revealed that insufficient knowledge about menstrual hygiene contributed to health issues and absenteeism. The study

recommended government and NGO interventions to provide sanitary products, improve menstrual hygiene education, and enhance school facilities.

Starrs *et al.*, (2018) performed a comprehensive study with aim of understanding reproductive health among Kenyan adolescents. Their research was also intended to confront and bring to light some of the factors influencing how they access and have been routinely using sexual health services. A survey targeted 1,200 adolescents between 15 and 19 from both rural and urban settings. Secondly, they used in-depth interviews on a group of 100 participants.

The research aimed to identify the key determinants of sexual health practices and some of the challenges and underlying barriers to sexual health service accessibility. It was reported that a good number of this adolescent population had been engaging in sexual activity before they reached 18 years, with many reporting inconsistent use of contraceptives. The research highlighted that socio-economic status, education level, and cultural norms were significant determinants of sexual health practices. For example, adolescents from lower socio-economic backgrounds had less propensity to use contraceptives due to cost and accessibility issues. The study also found that cultural stigma surrounding premarital sex deterred many most of these young people from seeking the necessary sexual health services.

Morris *et al.* (2024) investigated the role of professional societies within gynecology and obstetrics as advocating sexual and reproductive health under the Advocacy for Safe Abortion (ASA) Project, which engaged ten national societies across Africa and Latin America. This project aimed to enhance the capacity of these societies to lead initiatives focused on improving access to safe abortion services. Key strategies included institutional capacity building, collaboration with stakeholders, and training programs designed to reduce stigma associated with abortion. The findings highlight the significant impact that advocacy and capacity-building efforts can have on improving reproductive health outcomes. From the reported results, it was noted a need to roll out effective targeted interventions where individual attitudes and broader challenges in society are addressed to enhance both effectiveness and accessibility of sexual health services for adolescents. By underscoring the importance of professional

societies in shaping health policy and practice, this study has contributed to the budding literature calling for comprehensive, youth-friendly health services in underserved communities.

Sharma *et al.*, (2021) focused on studying the impact of peer education programs on the sexual health behaviors of adolescents in Kenya. They employed a quasi-experimental design, comparing the adolescents' sexual health behaviours participating in peer education programs with those who did not. The sample included 800 participants of 13-19 years recruited from both rural and urban schools. The data were analyzed using propensity score matching to control for differences between the groups and assess the impact of the programs. An insight reported from the study was that adolescent population that had participated in peer education programs showed higher propensity to using condoms consistently and less prone to risky sexual behaviours. The study also highlighted that peer education programs were particularly effective when they included components on communication skills and peer resistance strategies. The study found that adolescents having higher sexual health knowledge were significantly were twofold likely to seek sexual health services when needed. The research also highlighted that having knowledge on sexual health was strongly linked with participation in comprehensive sexual education programs. However, the study noted that even among adolescents having higher sexual health knowledge levels, barriers such as stigma and cost still prevented some from accessing services.

Kirengo (2020) conducted a study to explore and report some of the factors mediating mobile health (mHealth) products adoption among patients in Kenya, specifically focusing on Embu. The research utilized a mixed-methods approach to explore, and used the insight to evaluate the implications of some of the key factors like perceived usefulness, ease of use and accessibility did influence and affect mHealth products adoption. The research, which involved surveying patients, reported that those perceiving mHealth products as easy to use and useful as most likely adopting the same. Furthermore, the underlying role of socio-economic factors like income and level of education determined the rate of adopting these products. Despite the potential of mHealth products to improve access to healthcare, the study identified significant challenges, including limited access to smartphones and internet connectivity, which

hindered widespread adoption. These findings suggest that while mHealth products have the potential to enhance healthcare access, targeted interventions are needed to address the barriers to their adoption in low-resource settings like Embu, Kenya.

Onukwugha et al. (2023) contributed to this discourse using a systematic review for evaluating how mHealth interventions are effective and their allied characteristics. The intervention targeted an increase in access and use of SRH services among adolescents in Sub-Saharan Africa. The findings revealed that mHealth interventions significantly improved adolescents' uptake of various SRH services, particularly contraceptive use. Interventions that included two-way interactive features and incorporated multiple behaviour change techniques were found to be more effective in enhancing service utilization. The study also indicated that interventions promoting HIV prevention or treatment adherence were acceptable among adolescents and the implementation was feasible in this region. This research underscores the potential of mHealth solutions for confronting sexual health accessibility barriers for the youth, particularly in low-resource settings, thereby contributing to improved SRH outcomes. The study inferences have aligned with the underlying need for accessible and youth-friendly health services, as highlighted in studies examining sexual health-seeking behaviours among vulnerable populations.

2.3 Attitudes of the Youth towards Seeking Sexual Health Services

Attitudes significantly determines health-seeking behaviour, particularly in the context of sexual health. Several researchers have shown and studies factors mediating adolescents' attitudes towards seeking sexual health services and how these attitudes impact their behaviour.

Hogben et al. (2020) investigated the use of “patient-delivered partner therapy (PDPT)” in college health centres across the United States, particularly in the context of rising chlamydia rates among young adults. Findings revealed that 36.6% of health centres offered PDPT, and its availability was significantly attributed to PDPT perceived legality in states where these colleges were found and located.

Additionally, colleges that provided PDPT had a higher propensity of providing comprehensive SRH services, especially contraceptive services, gynecological services and STIs diagnosis and treatment. Furthermore, it was confirmed that PDPT would be most likely found in institutions actively notifying partners of potential exposures. Hence, this highlighted the inherent need to have better institutional policies for facilitating sexual health service access. These insights underscore the critical need for legal clarity and institutional support for PDPT implementation in college settings, which could enhance the overall effectiveness of sexual health interventions aimed at young adults. This research contributes to the literature on adolescent sexual health by illustrating the interconnectedness of legal frameworks, service availability, and health-seeking behaviors, which are vital for addressing the public health challenges faced by this demographic.

Sidi *et al.*, (2013) reported the findings from their comprehensive study targeting Malaysia to explore adolescents' attitude towards premarital sex and multiple sexual partners. This was a cross-sectional design on 800 adolescents between 15 and 19 from urban and rural settings. They used both descriptive statistics and thematic analysis in identifying the specific attitudes and trends. There was a general consensus about most participants holding and showing negative attitudes towards premarital sex. As such, 90% of this cohort and population declined or refuted the idea of multiple sexual partners. The research also revealed that age and cultural background were significant factors influencing these attitudes, with younger adolescents and those from more conservative backgrounds expressing stronger opposition. A major conclusion from this study was the critical role of cultural norms in shaping and defining the underlying attitudes towards health. As such, effective interventions must consider these norms to improve sexual health outcomes.

Jerop, Karonjo, and Mate (2023) conducted a study examining the socio-economic mediating the adoption and utilisation of youth-friendly reproductive health services within Marigat Sub-County, Baringo, Kenya. The research revealed that financial constraints significantly hindered young people from accessing the services, particularly among those from low-income families, who often found reproductive health options prohibitively expensive. Additionally, they confirmed limited

knowledge and awareness regarding available reproductive health services, indicating the need for targeted educational interventions. The authors advocate for government action to improve service availability and targeted outreach campaigns to educate the youth on reproductive health issues, emphasizing the need for comprehensive strategies to enhance service utilization (Jerop et al., 2023).

Karata and Mkoma (2013) delved into a comprehensive study and exploration in Tanzania in examining how peer influence impacted adolescents' attitudes towards sexual health services. The study utilized a cross-sectional design, surveying 1,000 within 13-19 age group incorporated or recruited from urban and rural settings. The authors used a structural equation modelling in analysing the data, which helped to explore the underlying association between attitudes, attitudes, and health-seeking behaviours. They confirmed the impact of peer influence in shaping adolescents' attitudes towards sexual health services. Groups who confirmed to having peers supporting sexual health services had a higher likelihood of showing positive attitudes and seeking the same services themselves. The research also highlighted that peer education programs were effective in promoting positive attitudes towards sexual health. However, the study noted that peer influence could also reinforce negative attitudes, particularly in environments where there is strong cultural resistance to sexual health services.

Samkange-Zeeb, Spallek, and Zeeb (2011) embarked on a comprehensive systemic review to assess both knowledge and awareness of STDs in school-going youth or adolescents in Europe. The review encompassed 15 cross-sectional studies published between 1990 and 2010, using the 13-20 years age group. They reported how awareness of STDs varied significantly by gender, with a generally high awareness of HIV/AIDS (over 90%) compared to lower awareness levels for other STDs, such as human papillomavirus (HPV), which ranged from 5.4% to 66%. Notably, while many adolescents recognized that condom use reduces the risk of STDs, there remained a misconception among some that condoms are merely a temporary contraceptive method until they can switch to the pill. The study concluded that despite the critical role of sex education in STD prevention, knowledge did not consistently lead to behaviour change, noting how comprehensive sexual health education is required

within school settings. The authors emphasized the importance of broadening educational efforts beyond HIV/AIDS to include other infections like chlamydia, gonorrhoea, and syphilis to improve overall awareness and prevention strategies among adolescents in Europe (Samkange-Zeeb et al., 2011).

2.4 Outlets for Sexual Health Services

Sexual health service availability and accessibility (for outlets) are critical determinants of youth health-seeking behaviour. The focus of recent research and studies have been geared towards exploring the role of different outlets, including formal healthcare facilities, community health workers, and mHealth interventions, in improving sexual health service accessibility among adolescents.

Morris and Rushwan (2015) studied how the availability of youth-friendly SRH were rated in low-income countries. Data were collected through interviews with healthcare providers and policymakers, as well as surveys of adolescents who use SRH services. The study used qualitative content analysis to analyse the data and identify major themes and challenges.

The study found a serious gap in youth-friendly SRH services in availability, more so low-income urban settings and rural areas. Key barriers identified included legal restrictions requiring parental consent for services, the longer distance to these facilities and associated costs of such services. The research also highlighted that community stigma and harmful gender norms further limited their overall accessibility (SRH) services for the adolescent population. Also recommended in this study was a need to integrate SRH services into existing healthcare infrastructure and implementing effective policies to address financial and legal barriers to accessing such services.

Godia *et al.*, (2014) examined how SRH services are provided to young people in Kenya, targeting healthcare provider experiences. The study applied a qualitative design targeting 50 healthcare providers with in-depth interviews from different regions and locations in Kenya. They used a thematic analysis to explore the underlying challenge and opportunities to providing SRH services among adolescents.

There were various challenges confronting healthcare providers in delivering SRH services to adolescents, especially limited training, no youth-friendly facilities, parental and community resistance. Also indicated or reported from the research was that healthcare providers were mostly not prepared to address the adolescents' special and unique needs, especially sexual and reproductive health. Targeted training programs have been recommended for these care providers and that youth-friendly clinics must be equally established.

Amialchuk and Gerhardinger (2015) focused on community-based SRH programs to report and confirm how they impacted how adolescents accessed and used sexual health services in Kenya. This involved a mixed-methods design, with surveys and focus group discussions from a comprehensive data on 600 adolescents and 30 community health workers. To extend the applicability of the findings, the study considered both urban and rural areas while recruiting the healthcare workers and adolescents. The data were analysed using a combination of descriptive statistics and thematic analysis for assessing how these community-based programs are effective. The study found that community-based SRH programs were effective in expanding sexual health services to adolescents, especially areas with limited healthcare infrastructure. The research highlighted that community health workers played a crucial role in providing education, distributing contraceptives, and referring adolescents to healthcare facilities. However, the study also identified challenges, such as the sustainability of the programs and the need for ongoing training for community health workers.

Mungai and Karonjo (2018) conducted a study on the role of schools SRH service provision to youths and adolescents in Kenya. The study utilized a cross-sectional design, surveying 1,000 adolescents aged 13-18 years from both urban and rural schools. A logistic regression model was used to analyse the data to assess the relationship between school-based SRH services and health-seeking behaviours. Findings from the study indicated that accessing SRH services within school environments increased the likelihood of seeking care when necessary and consistent use of contraceptives. The research also highlighted that school-based SRH services were particularly effective when they included components on sexual health education,

counselling, and referrals to external healthcare providers. However, the study noted that many schools lacked the resources to provide comprehensive SRH services, both low-income urban and rural areas.

Accordingly, Feroz et al. (2021) studied how mHealth interventions are used and applied for improving SRH outcomes among adolescents in low and middle-income countries. The study examined 15 articles published between 2005 and 2020. Three main mHealth applications were categorized, including “client education and behavior change communication, data collection and reporting, and financial transactions and incentives.” This wider application shows the extensive reach and use of mHealth in different realms of service provision among adolescents with regards to their reproductive health.

The review highlighted the significant role of mHealth in enhancing SRH knowledge and service accessibility, particularly through SMS-based interventions and interactive mobile applications. The review found that mHealth interventions effectively addressed barriers such as provider prejudice, stigmatization, and lack of privacy, which often deter young people from seeking SRH services. However, it also identified barriers to mHealth uptake, including technological literacy gaps, poor network coverage, and linguistic challenges. It was reported that mHealth application was mostly for communication on behavioral change and client education, used in 93% of the studies reviewed. Despite the promise of mHealth, the review emphasized the need for addressing infrastructure-related barriers and tailoring interventions to the specific cultural contexts of LMICs.

Ravindran and Govender (2020) conducted a critical review examining the integration of SRH services within UHC frameworks in low- and middle-income countries. Analyzing over 200 publications from 2010 to 2019, the authors found that many Essential Packages of Healthcare Services (EPHS) have been excluded key SRH services, especially reproductive cancer care and safe abortion despite being inadequately available already. The review identified significant barriers to access, including insufficient public funding, leading to high out-of-pocket expenses and inequities in service utilization. Furthermore, the authors highlighted how policy and

legal constraints, alongside restrictive gender norms, undermine the delivery of quality SRH services. Despite mixed evidence on the efficiency of private sector involvement in improving access for underserved populations, the authors advocate for prioritizing SRH in government health budgets and EPHS. They call for stable financing mechanisms to reduce reliance on out-of-pocket spending and emphasize the need for more explanatory research to inform policy and program development effectively. This review underscores the urgent need to integrate SRH services within UHC initiatives to ensure equitable health access for all populations (Ravindran & Govender, 2020).

The study by Wilson et al. (2020) comprehensively examined SRH among adolescents, especially girls and young women in Mombasa Kenya. The study specifically explored and studied those engaging in transactional and casual sex. The research highlights the critical SRH service accessibility gaps, worsened by stigma, inadequate youth-friendly services, and insufficient knowledge about available resources. This research used a cross-sectional approach and emphasizes the importance of integrating comprehensive SRH services that address the broader needs of this vulnerable population, beyond just HIV prevention. The findings emphasize the necessity for targeted interventions to improve SRH outcomes, suggesting that effective service delivery must overcome barriers related to stigma and accessibility to make a tangible impact on young women's health-seeking behaviors within urban slums and environments.

2.5 Choices about Seeking Sexual Health Services

Several SRH complications demand many adolescents to seek medical attention, including menstrual disorders, pubertal development questions, STIs contraction, and contraception. An internal examination is required to make a proper and accurate prognosis to diagnose some of these complications. The considered opinion for many adolescents is that such an examination should be conducted by a clinical officer who has established trust and a degree of rapport with them. There is thus exists a need to ensure that such examinations are appropriately conducted in youth-friendly facilities.

A study by Chola, Hlongwana and Ginindza (2020) showed that contraceptive utilization in Africa remains low despite high levels of childbearing and pregnancies among adolescents.

The study reported a positive correlation between contraceptive use and the marital status, level of education, and age of the respondents, with older and more educated adolescents demonstrating a higher utilization of contraception. Further, the study established that there was more uptake and adherence to adolescent and young adults contraceptives use among the married partners than unmarried couples.

Lantos et al., (2019) argued that parent-adolescent communication and discussion on the underlying association between SRH and higher levels of using contraceptives and delaying the onset of sexual activity. Their argument further stretches to suggest that adolescence is the prime age for engaging youth to focus on promoting their health on reducing their susceptibility to negative sexual health consequences. Many physicians and public health opinions support the study's claim as they inform that discussions about healthy romantic relationship among adolescents to be exploited as a holistic approach for promoting sex education. The findings of Widman et al further established that such discussion and open communication, especially among girls, was critical in reducing their engagement in sexually risky behaviours. The girls showed the higher likelihood of engaging in safe sexual behaviours, be open to abstinence and adhere to the use of protective methods to prevent getting pregnant or contracting STIs

Harvey et al., (2018) observed that the highest rates of accidental pregnancies are witnessed in teenagers and young adults. The consequence of unwanted pregnancy has ranged from impact the health of the couple, their stability in the family, financial strain, completion of education and attainment of well-paying job opportunities. The study also determined their highest risk of contracting STIs. The paper quotes a finding by the CDC in 2015, which identified that about 53% gonorrhoea and 65% of chlamydia in adolescents and young adults between 15 and 24 years. Every adolescent and young adult were reportedly confirmed to have specific dynamics rendering it a challenge to identify and recommend an effective contraceptive plan for everyone.

Yet, properly aligned sexual risk intervention and family planning advice considering the dynamism of youth and adolescent relationship is effective in guiding their contraceptive choices effective for the group.

Sexual behaviour and risk of STI transmission were done by Karata (2011), among school students in Moshi rural district secondary school. The study was inspired by a surge in evidence indicating an increase in sexual intercourse with multiple partners. The study determined that about 55.3% of the respondents indicated that they participated in a sexual activity. For those who confirmed engaging in sexual activity, 18.1% of the group confirmed a sexual history engagement with more than one partner. The respondents stated several factors that could be attributed to them engaging in sexual intercourse including knowledge and attitude toward sex, peer influences, their demographic characteristics, and other student's factors. The study also established the use of condoms among the respondents was low with nearly 60% of the respondents indicating not using a condom in the previous sexual encounter or experience.

The study recommended that given the prevalence of risky behaviour the best hope to inform students to improve their health-seeking behaviours to improve sexual and reproductive health education in school environments.

Kachota and Kassim (2021) engaged in a study targeting Morogo Tanzania's secondary school students. They reported issues with early pregnancies and STIs data showing no signs or signals of reducing. A common challenge is the ever-increasing STDs numbers, rates and deaths, especially HIV/AIDS. Further confirmed was the study was how 79.8% of the respondents had an understanding of STIs, with 86.5% having knowledge of contraceptives to control early pregnancies. Furthermore, there was 83.9% who did not use protection while engaging in sexual activities. Another interesting and insightful data and pattern as 74.7% respondents engaging in sexual intercourse with 23.5% not engaging in such an activity. From those engaging in sexual intercourse, the study confirmed 72% as living with both parents, and 25.3%

not living with a single parent while 2.6% not living with a parent. Also, 12% and 16% living with parents and with single parents respectively did not engage in sexual intercourse. This shows an inherent link and association between sex behaviours with living with both parents.

Several studies have also been done in Kenya to understand the sexual health-seeking behaviours within youths, more adolescents, and young adults. Mbewa (2020) showed a high level of knowledge (81.9%) on contraceptives which is similar to the KDHS 2022. Also confirmed and revealed from the study was how among sexually active respondents not using contraception, 84% were willing to use the same in pregnancy prevention. They mentioned condom as the preferred method, especially among girls. Furthermore, 62.8% of girls noted their worries about the associated risks of using contraceptives with 35.9% of the same girls being of the opinion that there were no perceived or associated risks. Besides, these girls mentioned a concern with barrenness or infertility as a health-related risks with contraceptives (42.8%).

Murigi et al (2016), focused on exploring the existing variation between high sexual activity among young adolescent girls and their contraceptive utilization in Kiambu County. The authors used a cross-sectional design as a mixed methods to gather data to inform the research. According to the study, the average sexual debut among many girls (75%) was about 15 years. However, the utilization of contraceptives among the group was significantly low with only 43% indicating the use of contraceptives and among them 80% indicating that they used emergency pills. Other factors that the study identified factors associated with contraceptive utilization included age, accessibility and perception, knowledge of contraceptives, culture, transactional sex, sexual violence, and unplanned sexual activity. These factors were identified as positively impacting the acceptance and use of contraceptives. The study's affirmed and notable finding was how those aged 18 and above had a higher likelihood of using contraceptives than younger ones. The study recommended that there was a need to

develop tailor-made messages on SRH targeting young adolescents' girls and promoting parent/guardian communication on SRH issues.

2.6 Theoretical Review

Two complementary theoretical models have been applied in this case to study and explore individual's sexual health-seeking behaviors. This targeted youth or adolescents from Mukuru slum, Nairobi attending secondary schools. Hence, the study used the Health Belief Model (HBM) and the Social Ecological Model (SEM). The models provided a robust and comprehensive framework used to understand and study both environmental and individual factors influencing health behaviors in the study context.

2.6.1 Health Belief Model

HBM, attributed to Irwin et al. in the 1950s, has been one of the mostly and widely applied and used framework to understand specific health-related behaviors (Rosenstock, 1974). The initial intention of creating this model was on explaining the reason and basis by which individuals participated in free tuberculosis screening programs. Besides, HBM model has been applied in different behavioral health interventions. The basis for using this model is that health behaviors are mostly defined and determined by individual's perceptions and beliefs of a health condition and strategies for mitigating the same. Janz and Becker (1984) explained the key components of the HBM including "perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy." The concept of perceived susceptibility denotes what and how an individual believes about the possibility of contracting a health condition. On the other hand, their perceived severity means the inherent and underlying belief that the health condition is serious and there are perceived or potential consequences of the same. These perceptions are often shaped by personal experiences, the experiences of others, and information received from health professionals and media sources (Champion & Skinner, 2008). By perceived benefits, individual's belief in how advised health behavior is effective in reducing severity or risk of the health problem is identified. In an instance, a youth believing in using condoms consistently as a crucial in preventing HIV infection is

more effective in adopting the behavior. Furthermore, perceived barriers is where individual has assessed the obstacles and barriers to adopting the suggested health behavior, especially financial constraints, limited access and social stigma.

The term “cues to action” are specific prompts or triggers encouraging or driving individuals into adopting the recommended health behavior. They can be internal, especially the symptoms experienced or external like peer influence or health campaigns. The term self-efficacy, which Bandura (1977) later joined, accounts for the individual’s confidence in the innate ability of successfully performing the underlying health behavior. The Health Belief Model's strength lies in its clear, actionable constructs directly applied to public health interventions (Champion & Skinner, 2008). It has been effectively used to design educational programs that aim to increase awareness and motivate behavior change in areas such as vaccination uptake, cancer screening, and sexual health practices.

However, the HBM is not without limitations. One significant criticism is that it focuses primarily on individual cognitive factors, potentially neglecting the broader social, environmental, and cultural influences on behavior (Janz & Becker, 1984). For instance, while the HBM might explain why an individual decides to use a condom, it might not fully account for the social pressures or economic conditions that influence access to condoms or the ability to negotiate their use. Critics argue that the HBM oversimplifies the decision-making process by focusing on individual perceptions and neglecting emotional, social, and environmental factors (Orji, Vassileva, & Mandryk, 2012). Moreover, the model has been criticized for its limited ability to address habitual behaviors or behaviors that are not primarily driven by conscious decision-making, such as those influenced by addiction or compulsion (Ajzen, 1991).

Although it has been criticized, HBM has been a valuable tool targeting health interventions, more so when combined with other models that address its limitations. For instance, integrating the HBM with the Social Ecological Model will result in a better and holistic model and approach used to understand and address the underlying health behaviors where individual beliefs and broader environmental challenges and factors or challenges are considered. Within public health content, the HBM has been

guiding the development of better interventions that address specific beliefs and barriers influencing health-seeking behaviors. For example, in settings like urban slums, health campaigns could focus on increasing perceived susceptibility and severity regarding sexually transmitted infections, while simultaneously enhancing perceived benefits and reducing perceived barriers through education and improved access to services (Glanz, Rimer, & Viswanath, 2008).

2.6.2 Social Ecological Model

Urie Bronfenbrenner developed the Social Ecological Model (SEM) in the 1970s, which offers a comprehensive framework for understanding health behaviors by considering multiple levels of influence. Unlike models that focus solely on individual factors, the SEM emphasizes the complex interplay between personal and environmental elements, challenging the notion that behavior can be understood and changed by targeting individual-level factors alone (Bronfenbrenner, 1979). Specifically, SEM addresses how human behaviour is defined and shaped by interactions in five interconnected levels including “individual, interpersonal, organizational, community, and public policy. At the individual level, personal factors such as knowledge, attitudes, and beliefs play a crucial role.” However, the SEM recognizes that these factors are not isolated; they are influenced by and interact with higher-level factors (Sallis, Owen, & Fisher, 2008).

Interpersonal relationships, particularly in close-knit communities, significantly impact health behaviors. Peer pressure, family attitudes, and communication about sensitive topics like sexual health can profoundly influence a young person's health-seeking behaviours. The organizational level considers the role of institutions like schools and healthcare facilities, which can either facilitate or hinder access to care through their policies and practices. Community-level factors are varied and extensive, including stigma, cultural norms and societal networks are shaping and defining individual's health behaviours. In contexts like urban slums, community attitudes towards sexual health can significantly impact whether youth feel comfortable seeking services. At the broadest level, public policies, such as laws governing sexual

education or the availability of subsidized health services, act as critical determinants of population-level health behaviours.

The SEM's primary strength lies in its holistic approach, making it particularly useful for addressing complex health issues that require multi-level interventions (McLeroy et al., 1988). By acknowledging the interconnectedness of various factors, the SEM provides a framework for designing comprehensive interventions that target not just individuals, but also their social networks, community environments, and broader societal contexts. However, the model's broad scope can present challenges in research and practice. Operationalizing the SEM often requires extensive data collection across various levels, which can be resource-intensive (Stokols, 1996). Additionally, the model may be less precise in predicting specific behaviors compared to more focused, individual-level models.

Critics argue that the SEM's layers of influence are not always clearly defined or easily measurable, potentially limiting its applicability in empirical research. Moreover, while the SEM highlights the importance of addressing multiple levels of influence, it doesn't provide specific guidance on how to prioritize or integrate interventions across these levels effectively (Stokols, 1996). Despite these challenges, the SEM remains a valuable tool for understanding and addressing complex health behaviors, particularly in settings where multiple social and environmental factors are at play. For urban contexts, with wide range of factors affecting health behaviours, SEM informs the overall design of comprehensive or holistic interventions addressing the underlying causes and elements of health disparities.

An SEM-based intervention might include peer education programs, school-based health services, community awareness campaigns, and advocacy for policy changes that improve access to sexual health services for youth (Sallis, Owen, & Fisher, 2008). By addressing multiple levels of influence simultaneously, such interventions aim to create an environment that supports and sustains healthy behaviors, recognizing that lasting change requires more than just individual-level interventions.

2.7 Conceptual Framework

The study's conceptual framework considers dependent and independent variables as well as the associated connection with the key concepts being studied. In this case, the individual's health-seeking behavioural outcome is subject to practices and attitude, including outlets for sexual health services. Other mediating factors include choices on health seeking behaviour and intervening variables, especially socio-demographic factors of religion, gender, age, religion, occupation and family size or number of siblings.

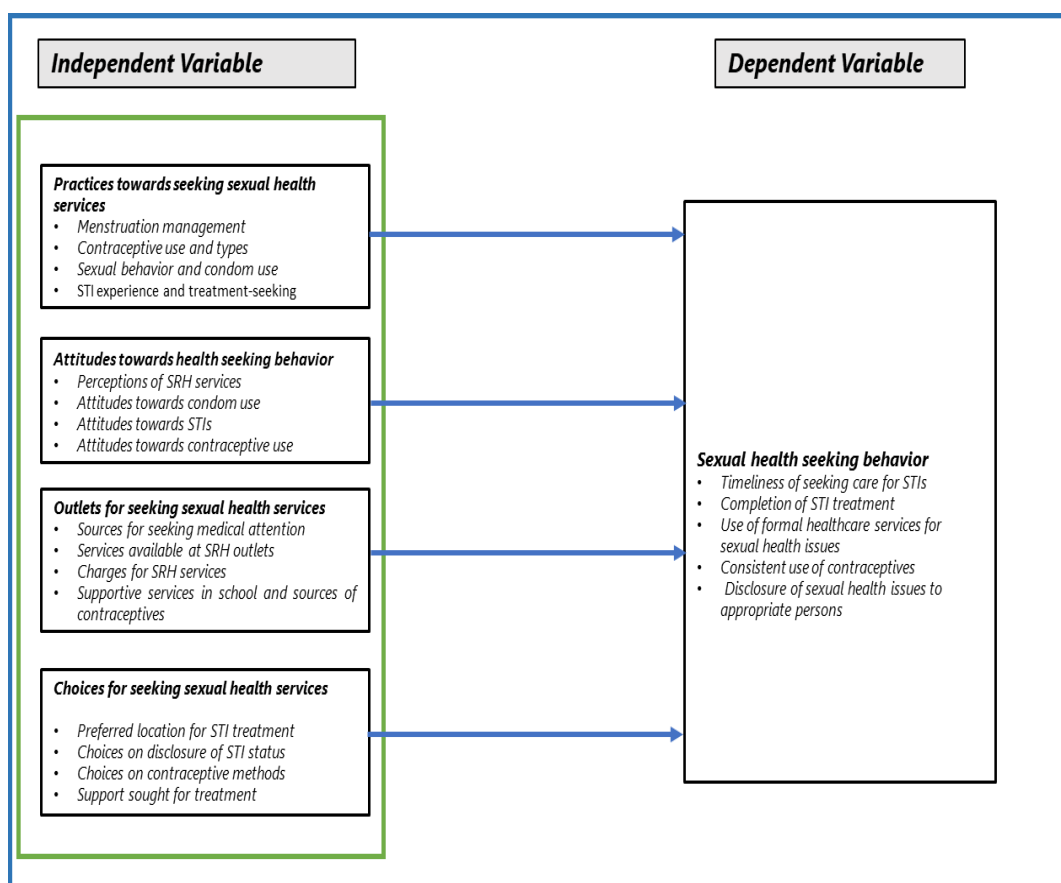


Figure 2.1: Conceptual Framework

CHAPTER THREE

MATERIALS AND METHODS

3.1 Study Site(s)

This was a study in three (3) secondary schools in Mukuru slums, Nairobi County in October 2017 and February 2018. It selected a girls school, boy's school and the third school was a mixed school. The location of Mukuru slums is Nairobi's city's Industrial Area region. The slum is situated about 7km southeast of central business district. It is largely within two constituencies of Makadara and Embakasi. The slums are approximately 40 years old with 30 villages and a population of about 700,000 people of which, 60% were aged 15-30 years (Mukuru Promotion Centre, MPC, 2022). It is a metropolitan slum that has people of diverse ethnic backgrounds. Most of the inhabitants have left their rural homes because of poverty and came to the city of Nairobi with the hope of finding gainful employment (Mukuru Promotion Centre, MPC, 2022). At the time of the study, there were no government-supported health facilities in the slum, but only some private ones offering services at a fee.

3.2 Study Design

The study used as descriptive cross-sectional design through a mixed methods design, found fitting for the study. This design allows for the assessment of multiple variables simultaneously, providing a comprehensive snapshot of sexual health-seeking behaviours among youth in Mukuru slum (Creswell & Creswell, 2018). The study's cross-sectional nature ensured that data could be efficiently collected in a single point in time, especially with the slum's population's dynamism (Levin, 2006). The depth and breadth of the findings would be enhanced by the quantitative and qualitative methods. Hence, it allowed data triangulation and more comprehensive understanding of the complexity or manifold of factors affecting and influencing the individual's health-seeking behaviours or decisions (Johnson *et al.*, 2007).

The quantitative component, through structured questionnaires, provides measurable data on prevalence, frequencies, and associations between variables. This allows for

statistical analysis and generalization within the study population (Queirós *et al.*, 2017). The qualitative component, comprising Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs), offers rich, contextual data that helps explain the 'why' and 'how' behind the quantitative findings (Kitzinger, 1995; DiCicco-Bloom & Crabtree, 2006). This mixed-methods approach is particularly suited to exploring sensitive topics like sexual health, as it provides participants with multiple avenues for sharing their experiences and perspectives (Tariq & Woodman, 2013).

3.3 Study Population

The study targeted adolescents between 15 and 24 years attending secondary schools in Nairobi County's Mukuru slums.

Table 3.1: Distribution of the Target Population

School Type	Girls	Boys	Total
Girls' School	548	0	548
Boys' School	0	339	339
Mixed School	224	230	454
Total	772	569	1341

3.3.1 Inclusion Criteria

- Youth aged 15-24 years (both boys and girls), consenting to study participation

3.3.2 Exclusion Criteria

- The youth who were engaged by the schools in various assignments.
- Students who failed to provide informed consent or whose parents failed to consent (for minors) were excluded.

3.4 Sample Size and Sampling

3.4.1 Sample Size

There were no studies that had been conducted to determine sexual health-seeking behaviour among youth in slums. This study, therefore, assumed 95% confidence level which is desired for many social studies (Dodgson, 2017). By applying the formula for

simple random sampling that captures finite population factor, the sample size was determined using Fisher *et al.*, (1998) as follows:

$$n = \frac{Z^2 pq}{d^2}$$

Where,

n = Desired sample size

Z = SD (1.96 for 95% confidence interval level)

p = Population proportion with the measured characteristics (when unknown, p=0.50 for the maximum variability)

d = desired accuracy level or sampling error. Set p= 5% or 0.05)

q=Population proportion that does not have the characteristic being measured and is set at (1-p)

$$n = \frac{(1.96)^2(0.5)(1 - 0.5)}{(0.05)^2}$$

Therefore, n=384.16

If the study's drawn population is below 10,000, the population size must be considered. As such, a population with over 10,000, n above is used as the final size of the sample. For a <10,000 population, like in the subsequent stud, this can be adjusted as:

$$nf = \frac{n}{1} + \frac{n}{N}$$

Where,

nf = final sample size for a <10,000 population

n=Final sample size for >10,000 population

N = Total population size (representing all adolescents in secondary schools in Mukuru, 2600)

$$nf = \frac{384.16}{1} + \frac{384.16}{2600}$$

nf= 336

Hence, 336 were included, secondary youth. The study or sample population was evenly distributed from all the three selected secondary schools, using 112 students from each school in Mukuru slum.

3.4.2 Sampling Procedure

The sampling procedure for this study was based on several key assumptions. First, it was assumed that the selected schools, which included a boys-only school, a girls-only school, and a mixed school, were representative of the target population and would provide valuable insights into the research questions. Second, in the mixed school, stratification based on gender was assumed to ensure adequate representation of both male and female youth. Third, the study considered 15-24 years as the age range for capturing the experiences and perspectives of youth in secondary schools. Finally, it was assumed that randomly selecting respondents from the sample frame would minimize bias and ensure equal chance of participation for all individuals.

From the assumptions, the study used a purposive sampling technique for selecting the three schools. For the mixed school, the study used a stratified sampling procedure to ensure that both female and male participants were involved and participated on equal measures.

The schools' head teachers provided support in collating a sample frame that covered all three schools. This sample frame consisted of a list of all youth aged 15 to 24 years, with male and female students listed separately. Respondents were then randomly selected from the sample frame using randomly generated numbers, ensuring that every person on the list had an equal chance of being chosen.

Table 3.2: Sample Distribution of the Respondents

School Type	Girls	Boys	Total
Girls' School	137	0	137
Boys' School	0	85	85
Mixed School	56	58	114
Total	193	143	336

The study used purposive sample for the study's qualitative component in selecting participants for focus discussions and in-depth interviews. The study conducted FGDs in these selected schools, with a group of lower secondary school students, both Form 1 and Form 2. The other group was comprised of upper secondary schools including Form 3 and Form 4, with each group having between 8 and 12 participants.

3.5 Data Collection

The study used a semi-structured questionnaire as self-administered instruments for engaging the population. The items contained in the tool included socio-demographic characteristics, attitudes on sexual-health seeking, practices and specific sexual health service outlets and choices to seek such care services (Appendix I). The study also used Focus Discussions and Key Informant Interviews in collecting data (Appendix II and III). To ensure comprehensive data collection, the study conducted 6 FGDs for the purposively identified and selected students. From the saturation limit consideration, the study used and considered a total 24 KII informed by the level of saturation. This were then conducted for the student representatives, more so school prefects, guidance and counselling teachers and school heads. Besides, this contained a local administration representative and governmental organisation offering the same health care services.

3.5.1 Research Instrument

The study used different instruments for gathering quantitative and qualitative data. This was also meant to ensure that sexual health-seeking behaviours were comprehensively understood among Mukuru slum's youth. The study also used a self-administered questionnaire as the primary tool to collect quantitative data. The aim was collecting information on key areas like

Socio-demographic characteristics, underlying practices associated with seeking sexual health services, attitudes, and knowledge of available service outlets including how they made choices on seeking sexual health care or related services. Contained in the questionnaire was a mixture of closed-ended and open-ended questions, which helped facilitate statistical analysis and capturing comprehensive responses and understanding of the underlying themes and patterns.

For the qualitative component, the study utilized a semi-structured Key Informant Interview guide. The specific design of this guide was meant and intended at providing detailed responses from key stakeholders, including school administrators, guidance and counselling teachers, student leaders, community health workers, and representatives from local youth organizations. The KII guide focused on exploring the stakeholders' understanding and perception of the sexual health issues among adolescents and youth issues in the community. Others included availability, accessibility, barriers, and facilitators to accessing such services. Furthermore, this involved capturing their recommendations on how to improve adolescent's health seeking behaviours.

In addition to the KIIs, the research employed a structured Focus Group Discussion guide to facilitate group discussions among the youth participants. This guide was crafted to encourage open dialogue and interaction within the group, covering topics such as common sexual health concerns, attitudes towards seeking sexual health services, experiences with local health facilities and services, on how peers influence health-seeking behaviours, and suggestions for making sexual health services more youth-friendly.

3.5.2 Piloting of Research Instruments

Prior to the main study, all research instruments were piloted to ensure their effectiveness and appropriateness. The pilot study was conducted with 20 students from a neighbouring school not included in the main study. This process helped refine the instruments for clarity, cultural appropriateness, and relevance, while also providing an estimate of the time required for each data collection method.

3.5.2.1 Reliability

The study used Cronbach's Alpha coefficient in assessing the reliability of the quantitative instrument, which was also used in measuring internal consistency. The Alpha values ranged between 0 and 1, whereby greater reliability meant higher values. It considered that values beyond 0.7 are acceptable, 0.8 good and beyond 0.9 considered as excellent (Tavakol & Dennick, 2011).

Table 3.3: Cronbach's Alpha Reliability Results

Variable	Cronbach's Alpha	Number of Measures
Practices towards seeking sexual health services	0.840	32
Attitudes towards health-seeking behavior	0.798	23
Outlets for seeking sexual health services	0.885	9
Choices for seeking sexual health services	0.822	15
Sexual health-seeking behavior	0.782	11

Source: Field Survey (2017/2018)

For all scales, the Alpha values were ranged between 0.782 and 0.885, as the consistency ranged between good and excellent. The scale for "Practices towards seeking sexual health services" showed strong reliability ($\alpha = 0.840$) across its 32 items. "Attitudes towards health-seeking behavior" demonstrated good reliability ($\alpha = 0.798$) with 23 items. The "Outlets for seeking sexual health services" scale showed the highest reliability ($\alpha = 0.885$), suggesting excellent internal consistency despite having only 9 items. The "Choices for seeking sexual health services" scale also showed strong reliability ($\alpha = 0.822$) across its 15 items. Finally, the "Sexual health-seeking behavior" scale, with 11 items, demonstrated good reliability ($\alpha = 0.782$). These results suggest that the instrument consistently measured the intended constructs, providing confidence in the reliability of the data collected.

3.5.2.2 Validity

Validity of the research instruments was ensured through several methods:

Content Validity: This meant developing the questionnaire after extensively reviewing the literature and adapting validated tools like the WHO's "Illustrative Questionnaire for Interview-Surveys with Young People" (Cleland *et al.*, 2001). This ensured that the instrument covered all relevant aspects of sexual health-seeking behaviour among youth.

Face Validity: For this case, it involved reviewing the instruments by experts in the field of public health and adolescent sexual health. The feedback was included for improving relevance, clarity and the comprehensiveness or robustness of the questions.

Construct Validity: The high Cronbach's Alpha values across different constructs (practices, attitudes, outlets, choices, and overall health-seeking behaviour) provide evidence of construct validity, confirming that each scale's items are measuring the expected construct.

Triangulation: Using quantitative and qualitative (FGDs and KIIs) methods allowed for triangulation of data, enhancing the robustness and validity of these findings. Combining these reliability and validity measures ensured that the research instruments were robust and well-suited to capture accurate and meaningful data on sexual health-seeking behaviours among youth in Mukuru slum. The high reliability coefficients, coupled with the multiple approaches to ensuring validity, provide a strong foundation for the credibility of the study's findings.

3.6 Bias Minimization

To address the potential for bias in this study, particularly given the sensitivity of the topic -sexual health, various strategies were employed for enhancing both reliability and validity. To minimize respondent bias, anonymous questionnaires were utilized for all quantitative data collection, ensuring that participants could respond candidly. The study promised to uphold the confidentiality of the participants' responses, both

verbally and in writing, to foster a sense of trust and encourage openness. The questionnaires were administered in private settings, which helped to eliminate external pressures or influences on the respondents' answers. Furthermore, the questions were carefully worded using neutral language to avoid inadvertently leading respondents towards specific answers.

Researcher bias was addressed through several measures. All research assistants received training on the study's objectives, ethical considerations, and standardized procedures for data collection, ensuring consistency in the research process. The study also used interview guides and structured questionnaires for maintaining the uniformity of the data collected. Regular debriefing sessions were conducted with the research team, providing an opportunity to address any issues that arose and to ensure a consistent approach. Additionally, the primary researcher maintained a reflexive journal throughout the study, which served as a tool for acknowledging and mitigating any personal biases.

To mitigate sampling bias, stratified random sampling was employed, ensuring that the sample represented different schools and genders. The inclusion of three schools in the study allowed for the capture of a broad range of experiences, reducing the likelihood that the findings would be overly influenced by school-specific factors. Key informants were also carefully selected to represent a variety of perspectives, including those of school staff, health workers, and community leaders. Recall bias was minimized by focusing questions on recent experiences, particularly within the last six months, to improve the accuracy of participants' recollections. Significant life events were also used as reference points to help participants recall specific health-seeking behaviours more accurately.

In addressing selection bias, the study's inclusion criteria were designed to be as inclusive as possible within the target age range. Additionally, characteristics of individuals who declined the study participations were documented to assess evidence of significant differences between respondents and non-respondents, further measuring or confirming selection bias. Lastly, to counter interviewer bias, interviewers were rotated during qualitative data collection, reducing the influence of

any single interviewer's characteristics on the responses. Interviewers were also trained in standardized probing techniques to avoid leading questions, further ensuring that the data collected was as unbiased as possible.

3.7 Data Analysis

The study used SPSS to analyse data from questionnaire. This meant using Descriptive statistics, especially continuous variables of age, sex and class and frequency percentage for categorical variables. The study then presented quantitative data using bar graphs, tables and pie charts. It also performed Chi-square tests for determining the relationship between the variables. Depending on the continuous variables distribution, the study used chi-square test for independence for testing whether dependent variables (health-seeking behavioural outcomes).

Chi-square test was used to make inference about the population in this study. Since there are several demographic features categorizing the data, the inferential statistics was applied to inform if the practices and attitudes towards SRH were independent of the age, class, gender, and other qualifying characteristics of the students. In addition, the inferential statistics also served as a tool for assessing whether there exists a noteworthy difference in the distribution of categorical variables across distinct groups. The test involved comparison between the observed frequencies of each category and the expected frequencies.

The null hypothesis (H_0), chi-square test, no association between two categorical variables. Alternative hypothesis, (H_1), there is association between these variables. The decision rule for this test is as follows:

If the p-value is less than the chosen significance level (α), set at 0.05, we reject H_0 we conclude that there is a significant association between the two categorical variables.

If the p-value exceeds α , we fail to reject H_0 , indicating no significant association between the variables.

The study used Binary Logistic regression for multivariate analysis. The independent variables previously tested individually and confirmed as having significant relationship with the dependent variables were considered together as predicting the sexual health seeking behavioural outcomes. These techniques helped in establishing true sexual health seeking behavioural predictors among the young in secondary schools in Nairobi County's Mukuru region. The study used a fixed significance level, $p < 0.05$, CI 95%. The study also used a thematic method in analysing qualitative data from the semi-structured interviews. The researcher also transcribed the audio recordings verbatim and imported the transcripts into NVivo as one of the qualitative data analysis software. The process also involved a detailed familiarization with the data, the coded transcripts, and emerging themes also identified. Then the themes were refined and reviewed then recorded as part of the study findings, which illustrative participant quotes used to support the findings. The use of NVivo facilitated the organization and comprehensive qualitative data analysis, enhancing the rigor and transparency of the process.

3.8 Ethical Considerations

The study's scientific and ethical approval were provided by the Scientific Steering Committee (SSC) at Kenya Medical Research Institute. The study also sought parental consent before collecting data for adolescents or youth below 18 years. However, for those aged 18 years and above, the study sought informed consent (Appendix 5).

The process to seek parent's/guardian's or interviewee's consent included providing information on the study's purpose, especially the principal areas of inquiry; indicating the procedures of collecting data (questionnaires, focus group discussion, or key informant interviews); time the data collection process would take; indicated any known risks anticipated; the benefits of the study including referrals for cases of affected respondents; assurance of complying with the principle of confidentiality and privacy of all records and information that were collected; reiterating the interviewee's voluntariness to engage in the study and at will to discontinue their participation at any stage/point; as well as indicating an opportunity to gain additional information on the study. The parent/guardian or student (above age 18 years) whose consent was sought

signed the informed consent form. The study enhanced confidentiality in the entire data collection and reporting process. The structured questionnaire tool was made confidential with no name on it. The individual interviews were conducted in spaces or rooms that could enhance confidentiality. This ensured that in an interview space/room, it was only the respondent with the interviewee and the respondent could also choose to answer or even mark their responses on the questionnaire in confidence. Permission to access and conduct this study in the selected schools was obtained from respective school head teachers.

CHAPTER FOUR

RESULTS

4.1 Response Rate

From 336 as the calculated sample size, a total of 327 participants responded, resulting in a response rate of 97.3%.

Table 4.1: Response rate

	Sample size	Responses	Percentage
Respondents	336	327	97.3

4.2 Socio-Demographic Characteristics

In Table 4.2, female students account for 57.8% of the participants, with majority (59%) were from the Upper Secondary level. The study population is largely adolescent, with a significant majority (84.1%) aged between 15-18 years. Most of students live with either both parents (37.9%) or single parents (34.6%).

Table 4.2: Socio-Demographic Characteristics of Respondents

Variable	Category	Frequency	Percent
Sex	Female	189	57.8
	Male	138	42.2
Class	Lower Secondary	134	41.0
	Upper Secondary	193	59.0
Age	15-18 years old	275	84.1
	19-24 years old	32	9.8
Live With	Single Parent	113	34.6
	Both Parents	124	37.9
	Others	90	27.5
Parent Occupation	Formal Employment	52	15.9
	Informal Employment	109	33.3
	Others	166	50.8

4.3 Behaviours of Respondents Towards Sexual Health

4.3.1 Practices During Menstruation

4.3.1.1 School Attendance During Menstruation

The table 4.3 below shows that about 10% of girls did not attend school during menstruation and all were aged between 15-18 years. All the girls whose parents were engaged in formal employment (100%) did not miss school during their menses. The result confirms that class level and School attend during menses ($P=0.001$) as a significant relationship, similar to age and School attend during menses ($P < 0.001$) and living arrangement and School attend during menses ($P=0.010$), and a significant association between parent occupation and the characteristic under consideration ($P=0.020$).

Table 4.3: Socio-Demographic Characteristics Associated with School Attendance During Menstruation

Characteristic		School Attend During Menses		
		Yes	No	P-value
Class	Lower Secondary	89 (95.7%)	4 (4.3%)	$X^2=15.197$ Df=2 P=0.001
	Upper Secondary	86 (89.6%)	10 (10.4%)	
Age	15-18 years old	157 (91.8%)	14 (8.2%)	$X^2=23.53$ Df=4 P<0.001
	19-24 years old	6 (100%)	0 (0%)	
Live with	Single Parent	61 (85.9%)	10 (14.1%)	$X^2=16.83^{**}$ P=0.010
	Both Parents	76 (96.2%)	3 (3.8%)	
	Others	38 (97.4%)	1 (2.6%)	
Parent occupation	Formal Employment	36 (100%)	0 (0%)	$X^2=11.2^{**}$ P=0.020
	Informal Employment	51 (85%)	9 (15%)	
	Others	88 (94.6%)	5 (5.4%)	

Table 4.4 presents the variables associated with school attendance during menstruation. The study performed Chi-square tests for examining how different factors influenced school attendance during menstruation. The study confirmed a

relationship between the type of material that an individual used during menses and their school attendance during the period, $\chi^2 (3, N = 188) = 11.614, p = .008$. The majority of girls using pads (94.4%) attended school during menstruation, while those using alternative materials such as cloth or tissue had lower attendance rates (75% for both). Sexual health service availability within schools was found to be associated with the attendance of school during their menstruation period, $\chi^2 (3, N = 188) = 8.414, p = .026$. Schools offering guidance and counseling or peer education services had higher rates of attendance during menstruation (95.3% and 95.8% respectively) compared to schools with no services (80.0%). These results suggest that the type of menstrual materials used and the presence of sexual health services in schools play significant roles in girls' school attendance during menstruation. Providing access to proper menstrual materials, particularly pads, and implementing comprehensive sexual health services in schools may help improve girls' attendance during menstruation.

Table 4.4: Variables Associated with School Attendance During Menstruation

Variables		School Attendance during Menstruation		P-value
		Yes	No	
Materials used during Menses	Pad	169(94.4%)	10(5.6%)	* $X^2 = 11.614$ P=0.008
	Cotton wool	0(0.0%)	1(100%)	
	Cloth	3(75.0%)	1(25.0%)	
	Tissue	3(75.0%)	1(25.0%)	
Source of material used during menses	Shop	93(93.0%)	7(7.0%)	* $X^2 = 5.275$ P=0.180
	School	7(100.0%)	0(0.0%)	
	Parent	63(95.5%)	3(4.5%)	
	Friend	6(75.0%)	2(25.0%)	
	Others	6(85.7%)	1(14.3%)	
Sexual health services existing in school	Guidance &counseling	122(95.3%)	6(4.7%)	* $X^2 = 8.414$ P=0.026
	Peer education	23(95.8%)	1(4.2%)	
	Others	5(83.3%)	1(16.7%)	
	None	24(80.0%)	6(20.0%)	

** Fisher's exact test

4.3.1.2 Reasons for Not Attending School During Menstruation

The figure 4.1 confirms that most the girls, 70%, reported that painful crump that were stressful was their reason for not attending school during the menstruation.

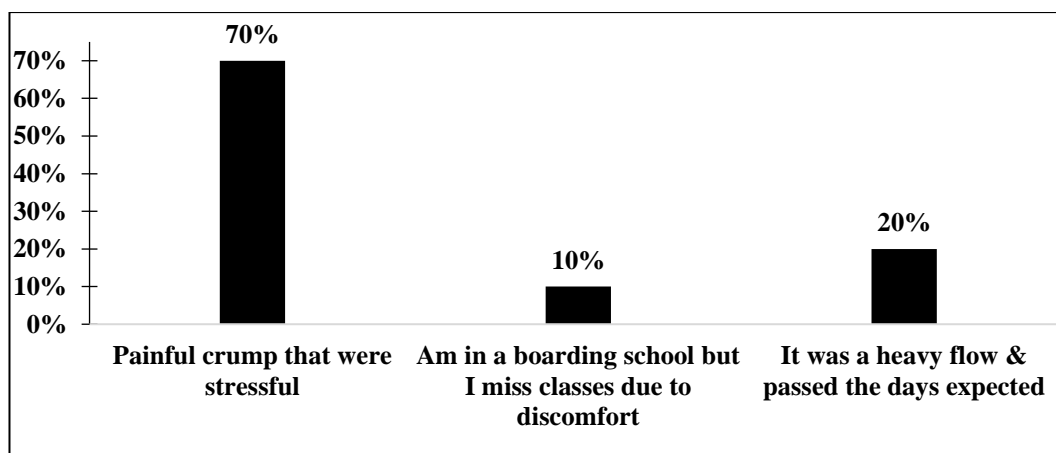


Figure 4.1: Reasons for Not Attending School during Menstruation

4.3.1.3 Menstruation Hygiene Products Used

A majority of these girls (95.2%) used sanitary pads during menstruation (see figure 4.2).

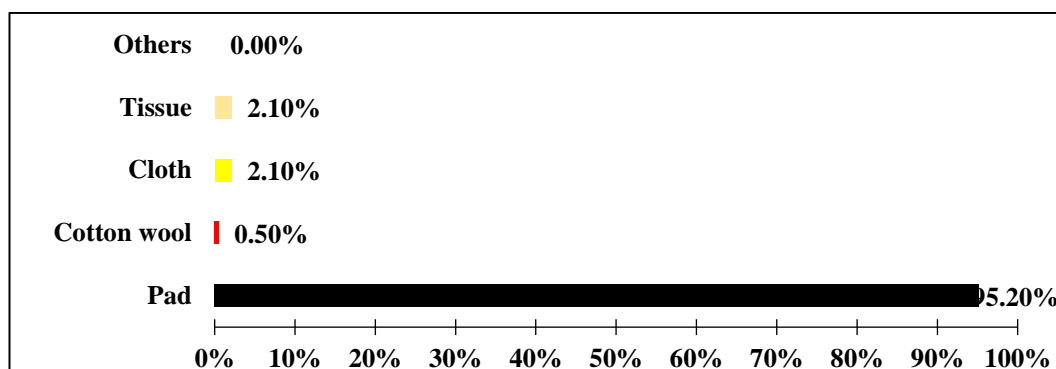


Figure 4.2: Menstrual Hygiene Products Used

Lack of sanitary towels came out as one of the main issues which most girls are struggling to address as mentioned by key informants and participants in the group discussions. The majority attributed that to lack of finances to procure the pads.

“...Most girls especially the young ones are not able to afford pads on their own or by their parents or guardians... This pushes some girls into cutting clothes or using tissues” (FGD, girls).

“Sanitary towels are essential items for girls...but majority of us are not in a position to afford them. Some of us are forced to have boyfriends who will be buying for us, amongst other things” (KII, female, 15 years).

“Most of these girls are really suffering *bwana!* Imagine a 17-year-old engaging in sex even with old adults to get money to meet her basics like buying sanitary towels...*Iko shida bwana* (there is a lot of trouble)” (KII, male, 45 years).

4.3.1.4 Sources for Menstrual Materials

Figure 4.3 shows that the respondents primarily sourced menstrual hygiene products from shops (53.2%) and parents (35.1%).

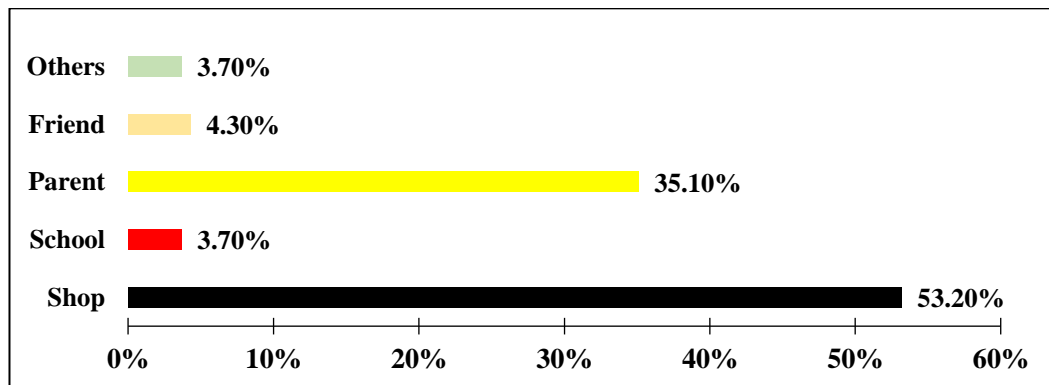


Figure 4.3: Sources for Menstrual Materials

4.3.2 Contraceptive Use

4.3.2.1 Level of Contraceptive Use

The figure 4.4 below shows that only 17% of the participants had ever used contraceptive.

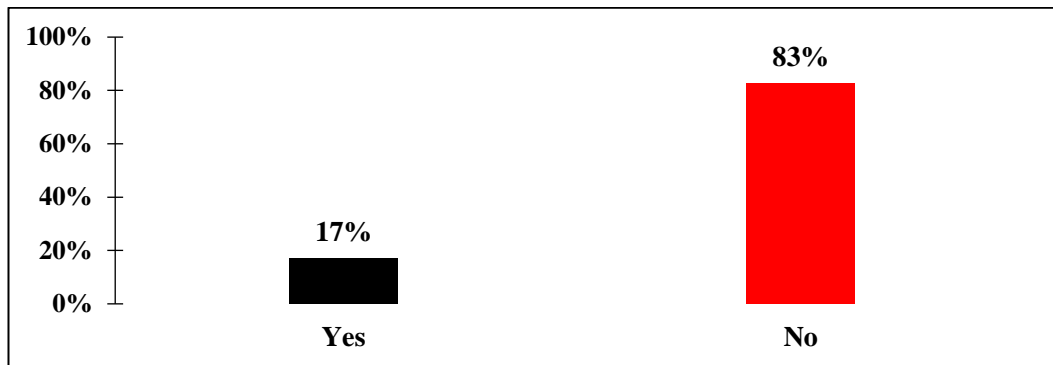


Figure 4.4: Ever Used Contraceptive

In addition, table 4.5 presents the associations between various demographic characteristics and contraceptive use among the study participants. Two significant associations were found: Class level and contraceptive use were significantly associated, $\chi^2(1, N = 326) = 9.553, p = .002$. Upper secondary students reported higher contraceptive use (22.9%) compared to lower secondary students (9.7%). This suggests that as students' progress in their education, they may become more likely to use contraceptives, possibly due to increased knowledge, awareness, or sexual activity. Parent occupation also showed a significant association with contraceptive use, $\chi^2(2, N = 326) = 8.124, p = .017$. Notably, participants whose parents had informal employment reported the highest rate of contraceptive use (25.9%), compared to those whose parents had formal employment (11.5%) or other occupations (13.9%). The analysis found no significant associations between contraceptive use and sex, age group, or living arrangements ($p > .05$ for all). A key insight from the result is that educational level and family's socio-economic background must be considered when designing effective interventions and models for promoting contraceptives acceptance and use among youth.

Table 4.5: Socio-Demographic Characteristic and Contraceptive Use

Characteristic		Contraceptive Use		p-value
		Yes	No	
Sex	Female	30 (15.9%)	159 (84.1%)	X ² =0.81 df=1 p=0.368
	Male	27 (19.7%)	110 (80.3%)	
Class	Lower Secondary	13 (9.7%)	121 (90.3%)	X ² =9.553 df=1 p=0.002*
	Upper Secondary	44 (22.9%)	148 (77.1%)	
Age	15-18 years old	47 (17.2%)	227 (82.8%)	X ² =4.693 df=2 p=0.096
	19-24 years old	9 (28.1%)	23 (71.9%)	
Live with	Single Parent	21 (18.6%)	92 (81.4%)	X ² =1.182 df=2 p=0.554
	Both Parents	18 (14.6%)	105 (85.4%)	
	Others	18 (20%)	72 (80%)	
Parent occupation	Formal Employment	6 (11.5%)	46 (88.5%)	X ² =8.124 df=2 p=0.017*
	Informal Employment	28 (25.9%)	80 (74.1%)	
	Others	23 (13.9%)	143(86.1%)	

When examining associations between contraceptive use and two variables: the presence of a sexual partner and sexual health service availability in schools; confirming that availability of sexual health and contraceptive use was confirmed as statistically confident, $\chi^2(3, N = 322) = 2.501, p < .001$. The highest rate of contraceptive use (20.3%) was observed among students in schools offering guidance and counselling services. Schools with peer education, other services, or no services had lower rates of contraceptive use (10.3%, 14.3%, and 14.3% respectively). This suggests that the presence of guidance and counselling services in schools particularly effective in promoting contraceptive acceptance and use among students. The presence of a sexual partner showed no significant association with contraceptive use ($p = .1051$). It's worth noting that 44.2% of those with a sexual partner reported using contraceptives, compared to only 8.0% of those without a partner. These findings highlight the potential importance of school-based sexual health services, particularly guidance and counselling, in promoting contraceptive use among students.

Table 4.6: Variables Associated with Contraceptive Use

Variables		Contraceptive use		P-value
		Yes	No	
Presence of Sexual Partner	Yes	38(44.2%)	48(55.8%)	X ² =57.111 df= 1 p=0.1051
	No	19(8.0%)	219(92.0%)	
Sexual health Services available in Schools	Guidance and Counselling	40(20.3%)	157(79.7%)	X ² =2.501 P<0.001
	Peer Education	3(10.3%)	26(89.7%)	
	Others	1(14.3%)	6(85.7%)	
	None	13(14.3%)	76(85.7%)	

4.3.2.2 Types of Contraceptives Used

The figure 4.5 below indicates condom use as most commonly used contraceptive (58%), then emergency contraceptives (28%).

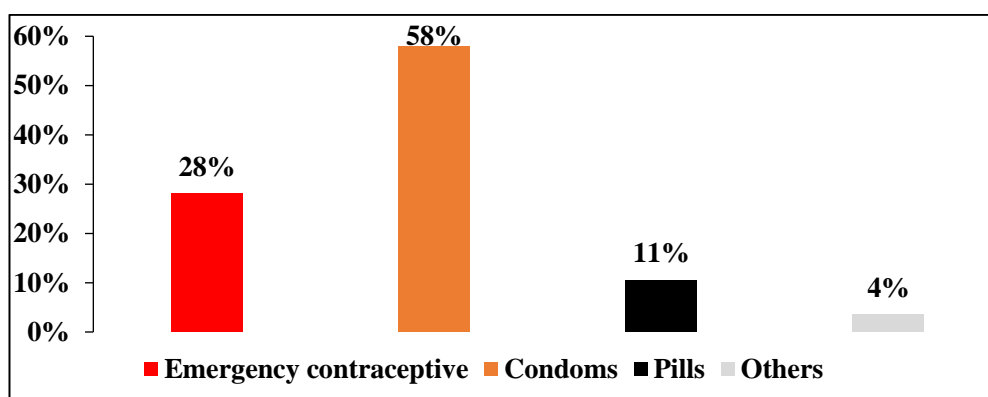


Figure 4.5: Type of Contraceptive Used

4.3.3 Sexual Practices

4.3.3.1 Characteristics of Sexual Practices

The table 4.7 indicates that more girls (68.8%) engaged in sex than males (38.4%). A higher proportion of female respondents (79.1%) were in an active sexual relationship and a majority of them were in lower secondary (90.2%) and those aged 15 -18 years (76.1%).

Table 4.7: Sexual Practices

	Characteristic					
	Sex		Age		Class	
	Female	Male	15-18 years	19-24 years	Lower Secondary	Upper Secondary
Ever Had Sex						
Yes	130 (68.8%)	53 (38.4%)	163(59.3%)	3(9.4%)	101(75.4%)	82 (42.5%)
No	59 (31.2%)	85 (61.6%)	112(40.7%)	29 (90.6%)	33 (24.6%)	111 (57.5%)
Presence of a Sexual Partner						
Yes	148 (79.1%)	90 (65.7%)	207(76.1%)	13 (40.6%)	119(90.2%)	119 (62%)
No	39 (20.9%)	47 (34.3%)	65 (23.9%)	19 (59.4%)	13 (9.8%)	73 (38%)

Conversely, majority participants in the group discussions observed that they have sexual partners for varied reasons;

“Engaging in sex with anyone anytime is not a problem in these areas as majority of us are looking for ways of surviving! Many of us have to have several sexual partners... We have one boyfriend and others as sponsors...” **(FGD, girls).**

“There are many young girls engaging in sexual intercourse with series of grow-up men at any time of the day...Sundays are busier than other days as many girls get out in pretext of going to church” **(KII, female, 49 years).**

“Some boys are involved in jobs like hired to prepare food such tea and mandazi, dusting peoples’ shoes and stealing to support their girlfriends” **(FGD, boys).**

“We still have many students especially boys in lower secondary who don’t seem to have engaged in sexual intercourse because of their tender age” **(KII, 17 years).**

“It’s true that young girls are engaging in sex though they don’t have boyfriends...sometimes they are lured into sex in exchange of money...or raped” **(KII, 38 years).**

4.3.3.2 Age of Sexual Debut

The figure 4.6 shows that a majority (85%) experienced their sexual onset after reaching 10 years.

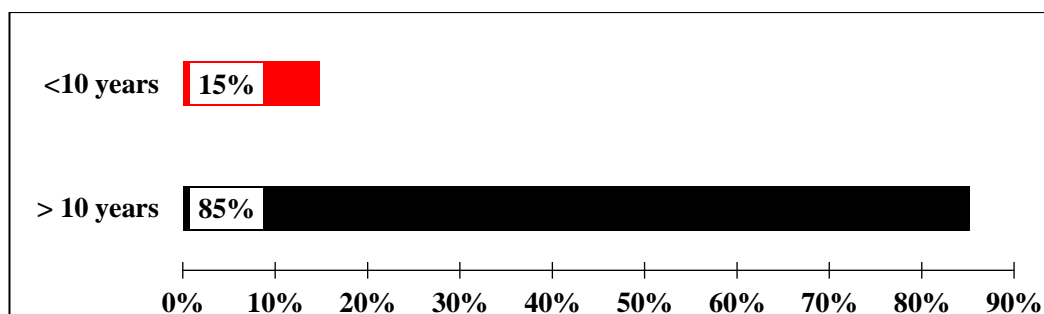


Figure 4.6: Age of Sexual Debut

The qualitative results also revealed that living in slums where many houses are either too small or closer to each other or living with single women were noted by many participants as a contributory factor to their age of sexual debut;

“Most of these children stay in the estate with women who may not necessarily single but hustling to survive, including those selling sex...this habit is done either in the day or night” **(KII, male, 45 years)**.

“Most of us were seeing, often peeping through spaces in iron sheets or walls, adults engaging in sex with lots of screaming, something that influenced some of us to begin that habit early” **(FGD, Boys)**.

“I have counselled girls who said they had been affected by sexual engagements of their single mothers who were taking many men to their rooms” **(KII, female, 38 years)**.

4.3.3.3 Condom use in the Last Sexual Encounter

The results in the figure 4.7 below shows that three quarter (75%) failed to use condoms in last time they engaged in a sexual intercourse.

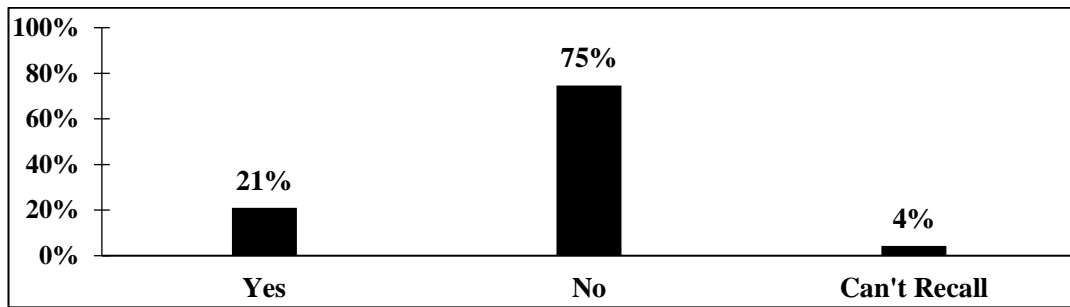


Figure 4.7: Condom Use in the Last Sexual Encounter

Table 4.8 presents associations between various demographic characteristics and condom use during the last sexual encounter. Analysis performed Chi-square tests for examining the relationships. A significant association was found between sex and condom use, $\chi^2(1, N = 310) = 6.959, p = .008$. Males reported higher condom use (29.2%) compared to females (16.7%) during their last sexual encounter. A positive link was confirmed between levels of class and condom usage $\chi^2(1, N = 310) = 14.400, p < .001$. Upper secondary students reported substantially higher condom use (29.7%) compared to lower secondary students (10.9%). This suggests that as students progress in their education, they may become more likely to use condoms, possibly due to increased knowledge, awareness, or access. Age was also found to significantly associated with condom use, $\chi^2(1, N = 291) = 13.597, p = .001$. Older students (19-24 years) reported higher condom use (46.9%) compared to younger students (15-18 years) at 20.1%. This age-related difference in condom use might reflect increased sexual experience, knowledge, or negotiation skills among older adolescents and young adults. The analysis found no significant associations between condom use and living arrangements or parent occupation ($p > .05$ for both). The results confirms why educational levels, gender and age must all be considered before designing effective interventions targeted at promoting condom usage among the youth population. The findings suggest that younger students, those in lower secondary classes, and females may benefit from targeted interventions to increase condom use.

Table 4.8: Association of Socio-Demographic Characteristics with Condom Use

		Condom use during last Sexual encounter		
		Yes	No	P-Value
Sex	Female	30(16.7%)	150(83.3%)	X ² =6.959 Df=1 P=0.008
	Male	38(29.2%)	92(70.8%)	
Class	Lower Secondary	14(10.9%)	114(89.1%)	X ² =14.400 Df=1 P<0.001
	Upper Secondary	54(29.7%)	128(70.3%)	
Age	15-18 years old	52(20.1%)	207(79.9%)	X ² =13.597 p=0.001
	19-24 years old	15(46.9%)	17(53.1%)	
Live with	Single Parent	25(23.6%)	81(76.4%)	X ² =2.433 Df=2 p=0.296
	Others	22(26.2%)	62(73.8%)	
Parent occupation	Formal Employment	8(16.3%)	41(83.7%)	X ² =1.112 Df=2 p=0.592
	Informal Employment	23(22.3%)	80(77.7%)	
	Others	37(23.4%)	121(76.6%)	

Table 4.9 presents various factors associated with using condition in previous sexual encounter among the participants. Sexual partner presence was strongly associated with condom use ($\chi^2(1) = 76.029$, $p < .001$). Those with sexual partners had a higher propensity of using condoms (57.9%) than with non-partners or without partners (10.3%). This substantial difference suggests that being in a sexual relationship may increase awareness of the need for protection or provide more opportunities for condom use. Another significant association was found between having contracted a sexually transmitted infection (STI) and condom use ($\chi^2(1) = 45.940$, $p < .001$). However, those who confirmed to ever contracting STI had a higher likelihood of using condoms (56.6%) in the last sexual intercourse than those who had not contracted the diseases (56.6%) compared to those who had never contracted an STI (14.5%). This could indicate that experiencing an STI may lead to increased awareness and subsequent protective behaviors. There was no significant or confirmed linked between using condition and other factors, especially initiation of condom use, whether they liked to use condoms and if sexual health support services were available at school or the type of STI contracted ($p > .05$ for all). The results underscore the importance of targeting interventions towards individuals in sexual relationships and leveraging the experience of STI contraction as a potential motivator for protective behaviors.

Table 4.9: Association of Variables with Condom Use

		Condom use in last sexual encounter		P-Value
		Yes	No	
Initiation of the use of condom	Self	33(97.1%)	1(2.9%)	$X^2=0.450$ Df=1 P=0.502
	Partner	15(100.0%)	0(0.0%)	
Liked using condom	Yes	41(100.0%)	0(0.0%)	$X^2=1.541$ Df=1 P=0.214
	No	26(96.3%)	1(3.7%)	
Sexual health support services existing in school	Guidance & Counseling	47(25.3%)	139(74.7%)	$X^2=2.494$ P=0.471
	Peer Education	5(17.2%)	24(82.8%)	
	None	15(17.4%)	71(82.6%)	
	Others	1(14.3%)	6(85.7%)	
Ever contracted an STI	Yes	30(56.60%)	23(43.40%)	$X^2=45.940$ P<0.001
	No	37(14.50%)	219(85.50%)	
Presence of a sexual partner	Yes	44(57.90%)	32(42.10%)	$X^2=76.029$ Df=1 P<0.001
	No	24(10.30%)	210(89.70%)	
Disease contracted	Candidiasis	2(40.00%)	3(60.00%)	$X^2=1.684$ P=0.552
	Gonorrhea	8(66.70%)	4(33.30%)	
	Syphilis	1(33.30%)	2(66.70%)	

4.3.4 Treatment Seeking

4.3.4.1 Respondents Ever Contracted Sexually Transmitted Infection

The results in figure 4.8 reveal that few respondents (18%) had contracted a sexually transmitted infection or genital disease.

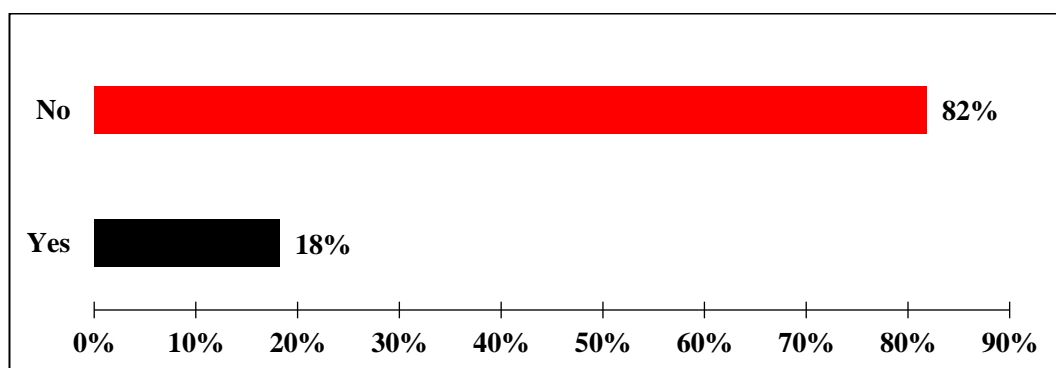


Figure 4.8: Ever Had or Contracted STI or Disease of the Genitals

4.3.4.2 Respondents Knowledge on the Sexually Transmitted Infection/Disease of Genitals Contracted

The study shows in figure 4.9 that out of the 18% who had contracted an STI/disease of the genital, a significant majority (61%) did not know the type of disease/infection they had contracted. Among those with knowledge of the STI/disease of genital, Gonorrhoea was widely mentioned by 22%

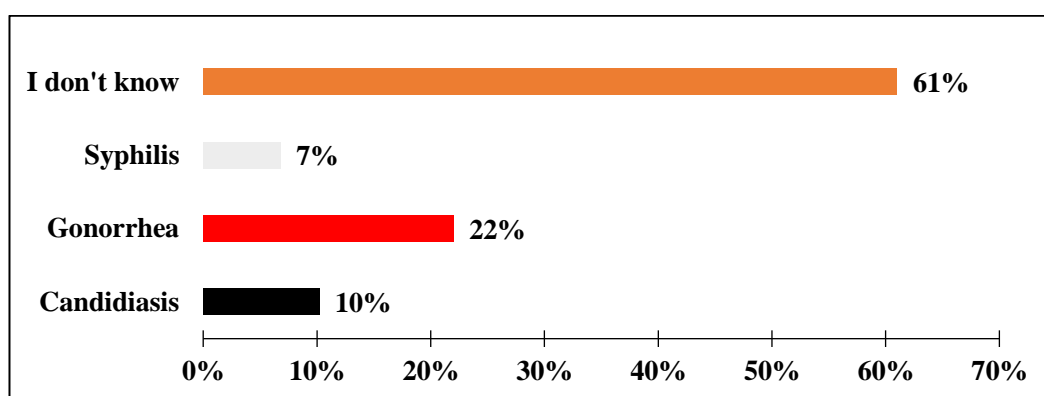


Figure 4.9: Contracted STI or Disease of the Genitals

From the discussion groups, youth were identified as a critical population that is vulnerable to STIs because of their social and behavioural predispositions. Many participants identified gonorrhoea, syphilis and chancroids as the main STIs that may affect them. Other infections mentioned to commonly affect the youth were urinary tract infections which were described by their associated signs such as passing pus-like discharge, an itching sensation in the private parts, and development of wounds in their private parts.

“Most of these STIs are very common amongst the youth” (**Female, 18 years**).

“Gonorrhoea is the main headache for us girls as majority of those who report to have contracted it say it takes a long time to be detected” (**FGD, girls**).

“Few boys who engage in unprotected sex complain of pain during urination, passing pus-like discharges, itching of the private parts and some have a wound in their private parts” (FGD, boys).

“In most circumstances when youth having conditions believed to be STIs begin to adopt different walking style...you can tell this is a certain STI... It’s scaring” (KII, female, 16 years).

4.3.4.3 Respondents Immediate Taken Upon Noticing the Symptoms of Sexually Transmitted Infection

The figure 4.10 below shows that 31% displayed promptness by visiting a medical clinic upon symptom observation while 28% turned to their friends for consultation and 22% opted for self-treatment.

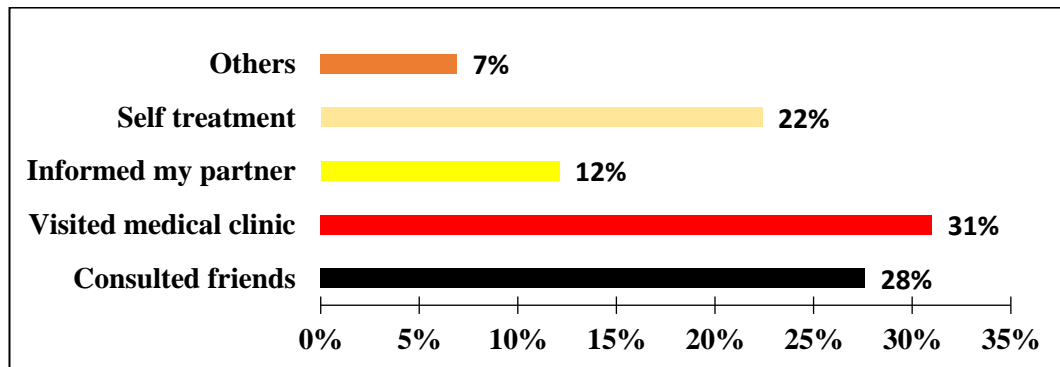


Figure 4.10: Immediate Action Taken Upon Noticing the Symptoms of the STI

From the discussion groups, many participants observed that partner violence as anger and blame-game sets in on noticing that they have been infected with an STI.

“Most boys don’t believe that their sexual partners are trustworthy. We blame girls for infecting boys...as a result some girls are even beaten up physically” (FGD, male).

“How do you take it if you realize that your regular sexual partner has infected you with gonorrhoea with all the pain and discomfort?” (KII, male, 16 years).

4.3.4.4 Respondents Seeking Treatment for STIs

The figure 4.11 indicates that 80% of the respondents, a majority, sought treatment of STIs post recognition of the symptoms.

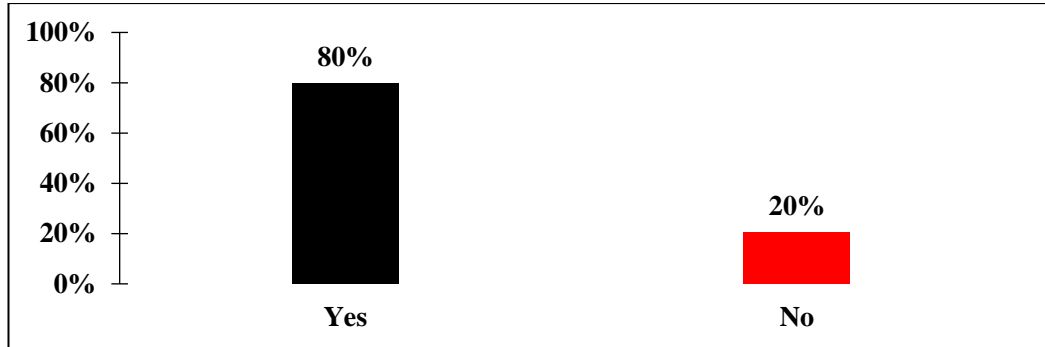


Figure 4.11: STIs Treatment Seeking

The table 4.10 below shows no significant association between seeking treatment for STIs and sex, class, age, living arrangements, or parent occupation. The likelihood of seeking treatment appears to be similar across these demographic variables

Table 4.10: Association of Socio-Demographic Characteristics with Treatment Seeking Behaviour

		Treatment seeking for STIs?		P-value
		Yes	No	
Sex	Female	23(82.1%)	5(17.9%)	X ² =0.203 Df=1 p=0.653
	Male	24(77.4%)	7(22.6%)	
Class	Lower Secondary	10(66.7%)	5(33.3%)	X ² =2.096 Df=1 p=0.148
	Upper Secondary	37(84.1%)	7(15.9%)	
Age	15-18 years old	33(78.6%)	9(21.4%)	X ² =0.311 Df=2 p=0.856
	19-24 years old	13(81.3%)	3(18.8%)	
Live with	Single Parent	17(85.0%)	3(15.0%)	X ² =1.411 p=0.541
	Both Parents	12(85.7%)	2(14.3%)	
	Others	18(72.0%)	7(28.0%)	
Parent occupation	Formal Employment	6(85.7%)	1(14.3%)	X ² =0.671 p=0.817
	Informal Employment	20(83.3%)	4(16.7%)	
	Employment			
	Others	21(75.0%)	7(25.0%)	

The analysis in table 4.11 also revealed a significant association between the type of STI contracted and treatment-seeking behavior ($\chi^2(3) = 7.895$, $p = .027$). All participants with candidiasis or gonorrhoea sought treatment, compared to only 50% of those with syphilis. Notably, 72.2% of those uncertain about their diagnosis still sought treatment. Initial reactions to STI symptoms showed a trend towards influencing treatment-seeking behavior, although not statistically significant ($\chi^2(4) = 8.239$, $p = .056$). Those who consulted friends or medical clinics reported a higher likelihood to seek treatment than self-treated and informed their partners. The presence of school-based sexual health services also showed a non-significant trend ($\chi^2(2) = 4.320$, $p = .08$), with schools offering guidance and counseling services having a higher percentage of students seeking treatment compared to schools without such services. The timing of reaction to symptoms did not significantly affect treatment-seeking behavior ($\chi^2(3) = 1.054$, $p = .877$), with most participants taking action within 1-2 weeks of noticing symptoms. These findings highlight the complex nature of STI treatment-seeking behavior, influenced by factors such as the type of STI, initial reactions to symptoms, and available support services.

Table 4.11: Association of Variables with Treatment Seeking Behaviour for STIs

Variables	Treatment seeking behavior for STIs		P-value
	Yes	No	
Disease Contracted			
Candidiasis	6(100.0%)	0(0.0%)	X ² =7.895 p=0.027
Gonorrhea	13(100.0%)	0(0.0%)	
Syphilis	2(50.0%)	2(50.0%)	
Don't Know	26(72.2%)	10(27.8%)	
Reaction Upon noticing STI symptoms			
Consulted friends	15(93.8%)	1(6.3%)	X ² =8.239 p=0.056
Visited medical clinic	14(77.8%)	4(22.2%)	
Informed my partner	5(71.4%)	2(28.6%)	
Self-treatment	11(84.6%)	2(15.4%)	
Others	1(25.0%)	3(75.0%)	
Reaction Time			
1-3 days	3(75.0%)	1(25.0%)	X ² =1.054 p=0.877
4-7 days	19(82.6%)	4(17.4%)	
1-2 weeks	14(87.5%)	2(12.5%)	
After 2 weeks	11(78.6%)	3(21.4%)	
Existing sexual health support services in school			
Guidance & Counseling	30(88.2%)	4(11.8%)	X ² =4.320 p=0.08
Peer education	1(100.0%)	0(0.0%)	
None	16(66.7%)	8(33.3%)	

4.3.5 Treatment Completion for STIs

4.3.5.1 Levels of Treatment Completion

The figure 4.12 below indicates that 58.49% of the respondents completed their treatment for STIs. About 24.53% did not remember if they completed treatment.

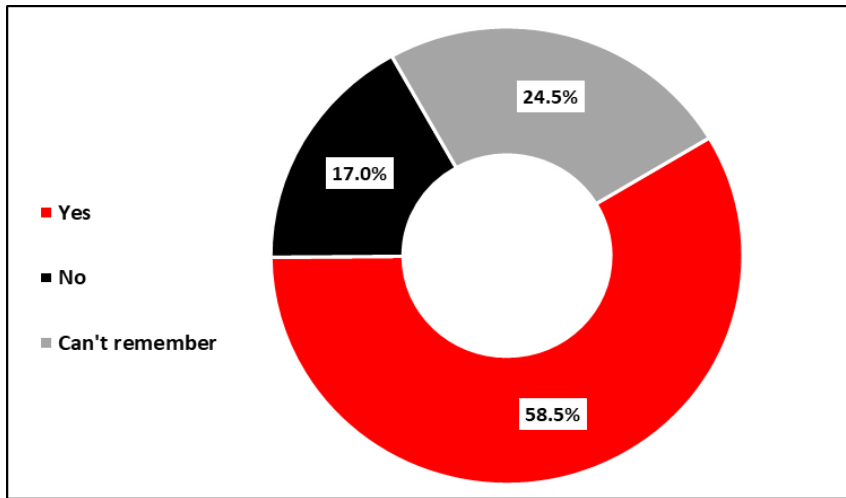


Figure 4.12: STIs Treatment Completion

From the table 4.12, feelings about the outlet visited show a significant association with treatment completion ($P < 0.001$). Individuals who perceived the outlet as providing quality service (100%) were more likely to complete treatment. The table also reveals that the type of outlets for STI treatment ($p\text{-value} = 0.033$) was significantly associated with the STIs treatment completion behaviour among the youth in schools.

Table 4.12: Variables Associated with Treatment Completion Behaviour

Variable	Treatment Completion		P-Value
	Yes	No	
Disease Contracted			
Candidiasis	3(75.0%)	1(25.0%)	$X^2=5.231$
Gonorrhoea	11(100.0%)	0(0.0%)	p=0.115
Syphilis	2(66.7%)	1(33.3%)	
Don't Know	15(68.2%)	7(31.8%)	
Self-Decision on seeking treatment			
Yes	16(88.9%)	2(11.1%)	$X^2=2.751$
No	13(68.4%)	6(31.6%)	P=0.276
Can't remember	2(66.7%)	1(33.3%)	
Outlets for treatment			
Medical Clinic	22(88.0%)	3(12.0%)	$X^2=7.662$
Pharmacy	8(72.7%)	3(27.3%)	p=0.033
Traditional Medicine	1(33.3%)	2(66.7%)	
Others	0(0.0%)	1(100.0%)	
Treatment services received			
Consultation, Lab and Medicine	11(91.7%)	1(8.3%)	$X^2=3.508$
Prescription Only	3(75.0%)	1(25.0%)	p=0.515
Medicine Only	11(64.7%)	6(35.3%)	
Lab & Medicine	5(83.3%)	1(16.7%)	
Others	1(100.0%)	0(0.0%)	
Feelings about outlet visited			
Quality service	26(100.0%)	0(0.0%)	$X^2=22.981$
No Medicine	0(0.0%)	1(100.0%)	P<0.001
Not good	3(33.3%)	6(66.7%)	
Others	2(50.0%)	2(50.0%)	
Sexual Health Services existing in school			
Guidance & Counseling	30(88.2%)	4(11.8%)	$X^2=4.320$
Peer Education	1(100.0%)	0(0.0%)	p=0.080
None	16(66.7%)	8(33.3%)	

4.3.6 Partner Disclosure for STIs

The study shows on table 4.13, that almost twice as much respondents who live with both parents (53.8%) than their counterparts reported disclosure of the STI infections to their partners however, there was no significant association (p-value= 1.130).

Table 4.13: Association of Demographic Characteristics with Partner Disclosure Behaviour

Characteristics		Partner Disclosure of STI		P-Value
		Yes	No	
Sex	Female	7(28.0%)	18(72.0%)	$X^2=0.108$ Df=1 P=0.743
	Male	9(32.1%)	19(67.9%)	
Class	Lower Secondary	2(15.4%)	11(84.6%)	$X^2=1.791$ Df=1 P=0.181
	Upper Secondary	14(35.0%)	26(65.0%)	
Age	15-18 years old	12(31.6%)	26(68.4%)	$X^2=0.533$ P=1.000
	19-24 years old	4(28.6%)	10(71.4%)	
Live with	Single Parent	4(23.5%)	13(76.5%)	$X^2=4.240$ P=0.130
	Both Parents	7(53.8%)	6(46.2%)	
	Others	5(21.7%)	18(78.3%)	
Parent Occupation	Formal			$X^2=4.694$ P=0.102
	Employment	4(66.7%)	2(33.3%)	
	Informal			
	Employment	7(31.8%)	15(68.2%)	
	Others	5(20.0%)	20(80.0%)	

In addition, table 4.14 shows that a majority of those who disclosed their STI condition to their partners had suffered from Gonorrhoea (30.4%) however, disease contracted had no significant association with partner disclosure (p-value=0.959)

Table 4.14: Association of Disease Contracted with Partner Disclosure Behaviour

Variables		Partner Disclosure of STI		P-Value
		Yes	No	
Disease contracted	Candidiasis	1(16.7%)	5(83.3%)	$X^2=0.704$ P=0.959
	Gonorrhoea	4(30.8%)	9(69.2%)	
	Syphilis	1(25.0%)	3(75.0%)	
	Don't know	10(33.3%)	20(66.7%)	

4.3.6.1 Reasons for Non-disclosure of STIs to Partner

Figure 4.13 below shows that the most common reason for non-disclosure of the STIs to Partner was because of relationship breakup (33.33%) and slightly about 3% reported having been raped.

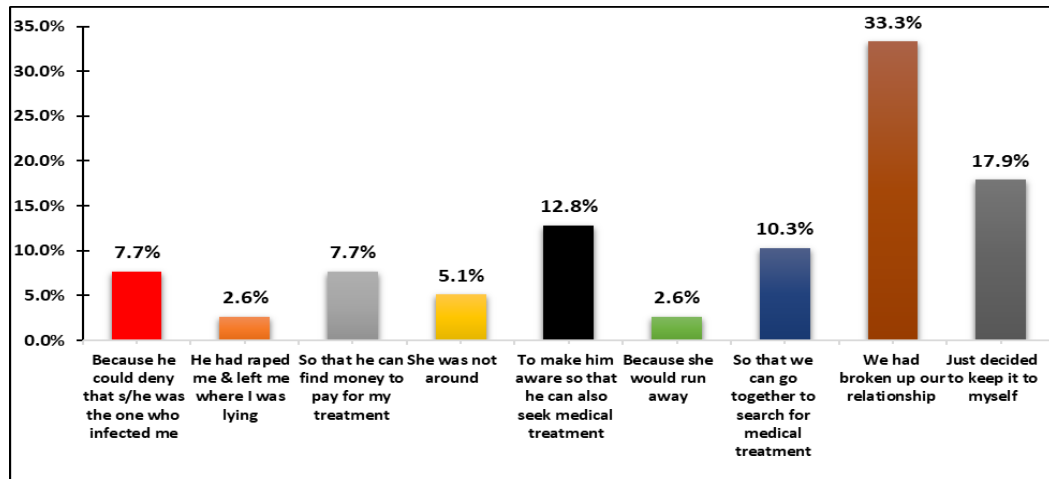


Figure 4.13: Reasons for Non-Disclosure of STIs condition to Partner

4.4 Attitude of Respondents Towards Sexual Health

4.4.1 Attitudes Towards Condom Use

Figure 4.14 indicates that 57% of the participants liked using condoms, while 43% expressed dislike in using them.

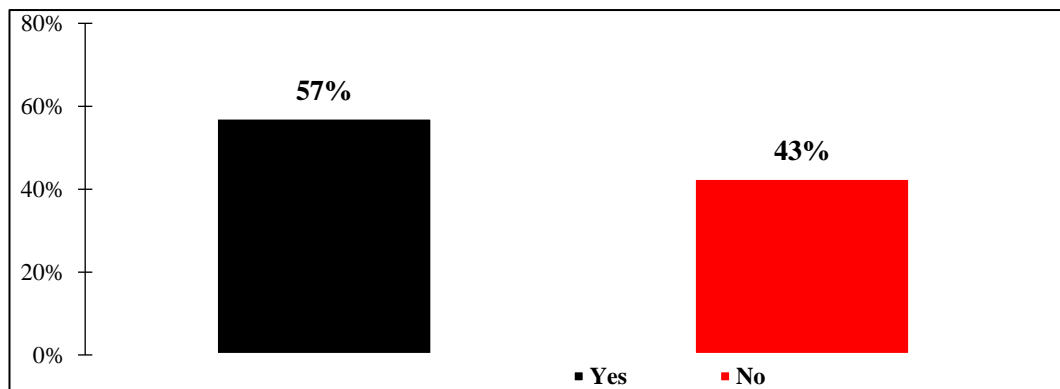


Figure 4.14: Liking Condom Use

The findings in the table 4.15 below also shows that specifically, 52.2% of males and 63.9% of female reported a liking towards condom use. The students aged between 15-18 years (60.9%) also showed liking for condom use however, it was notable that their counterparts aged 19-24 years (62.5%) disliked condom use. Sex, age and class did not exhibit significant association with liking condoms (p-value >0.05).

Table 4.15: Association of Socio-Demographic Characteristics with Liking Condom Use

Characteristics	Liking Condom Use		P-Value	
	Yes	No		
Sex	Female	23 (63.9%)	13 (36.1%)	X ² =1.133 df=1 p=0.287
	Male	24 (52.2%)	22 (47.8%)	
Class	Lower Secondary	10 (55.6%)	8 (44.4%)	X ² = 0.029 df=1 p=0.864
	Upper Secondary	37 (57.8%)	27 (42.2%)	
Age	15-18 years old	39 (60.9%)	25 (39.1%)	X ² =4.401 df=2 p=0.111
	19-24 years old	6 (37.5%)	10 (62.5%)	

4.4.2 Respondents Motivation to Like or Dislike Condom Use

The study as shown in the figure 4.15 indicate that over half of the participants (56%) recognized condoms as the most reliable method for preventing pregnancy and STIs/HIV. However, there were some reservations about condom use. These included doubts about their 100% effectiveness (18%) and discomfort (4%).

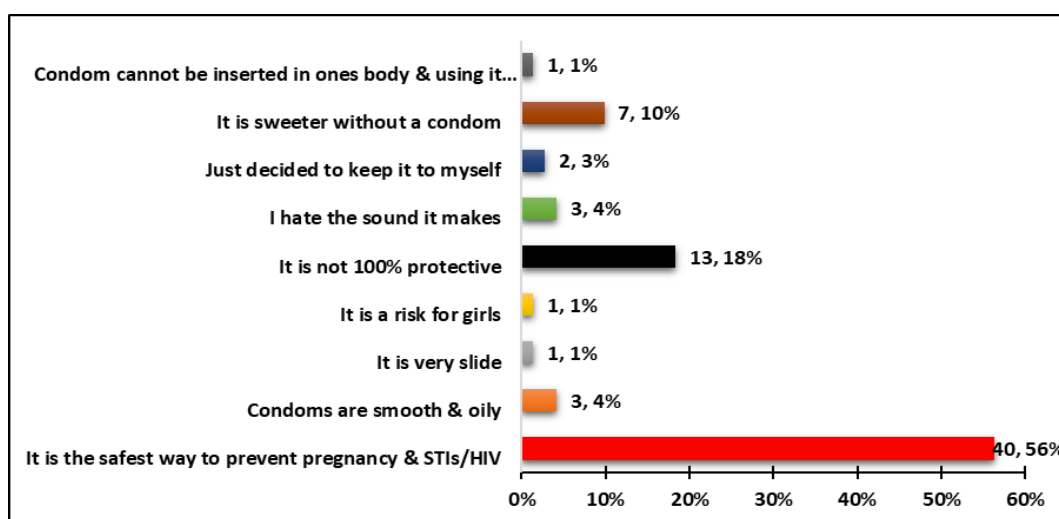


Figure 4.15: Reasons for Liking or Disliking Condom Use

In the Focus Group Discussion, several participants observed that condom use was an issue of concern both in the slums and the schools within the slum though most of them noted that they had used it before. They noted;

“Though we don’t really like using it, we have been sensitized to use it for our benefit...and everywhere you go you see used ones” (FGD, boys).

“Because some girls seem to be having many sexual partners than us, condom is a must” (FGD, boys).

“Majority of us girls prefer asking to see a condom before agreeing to engage in sexual intercourse because pregnancy at this early age is a nightmare for many of us” (FGD, girls).

However, some few participants noted that engaging in sex especially among the school-going youth in slums where there are many people and the houses too close to each other require some level of intelligence. They observed;

“We walk around with a condom or two somewhere in the bag in the event *ukutane na mtu ghafla* (you suddenly meet with a girl) and you have to hide somewhere to have sex!” (FGD, boys).

“What do you do when you suddenly corner a beautiful girl and you don’t have a condom and the lady accepts to quickly have sex with you? You may not have time to decide to go look for a condom...That’s when sex without a condom is sweet!” (**KII, male, 18 years**).

“Most of these boys will tell you what they don’t like doing. They will tell you that they are using a condom every time they have sex but wait for a week or two when they notice some pain in passing out urine and that is when you will know the story” (**KII, female, 37 years**).

4.5 Outlets for Sexual Health Services

4.5.1 Respondents Sources of Sexual Reproductive Health Services

The results as shown in the figure 4.16 below reveals that most respondents (57%) sought sexual health services from non-health facilities.

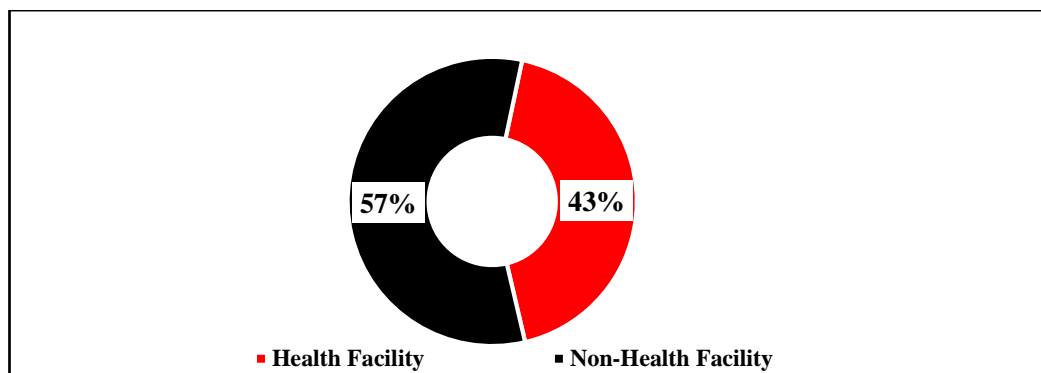


Figure 4.16: Sources of Sexual Health Services

Throughout the FGDs, most participants confirmed seeking help from different individuals and institutions on SRH services. Some sought help from parents, friends, and others seeking help from VCTs and small government facilities. Similarly, traditional doctors and herbal clinics were equally identified as a source of support and help in seeking SRH services.

Some participants observed the following;

“... Friends really help a lot when consulted” (FGD, male).

“...These small hospitals and clinics within this slum really help us a lot” (FGD, female).

“... Even the herbal clinic like the one in green and white tents that charge shillings 50 also help us when we have problems” (FGD, male).

4.5.2 Respondents Sources of Treatment for Sexual Transmitted Infections

The study shows in the figure 4.17 that a majority of the respondents (81%) visited health facility in the treatment of STIs while 19% chose non-healthcare facilities for their STI treatment.

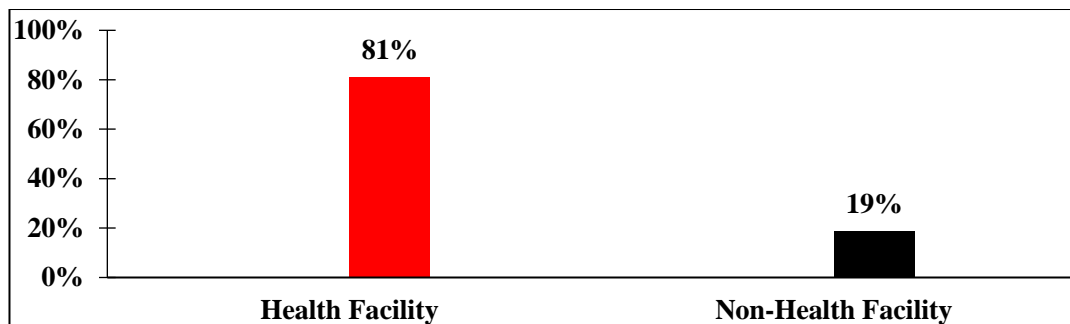


Figure 4.17: Sources for STIs Treatment Visited

Most participants confirmed that they sought services from VCT on HIV/AIDs counselling and testing. However, confirmed to visiting other outlets when suspecting STIs especially syphilis and gonorrhoea. They noted:

“There are also others who want to visit the hospital for treatment but they are scared and want to be encouraged” (KII, male, 17 years).

“...VCTs also provide treatment to youth like us especially when we are suffering from STIs like gonorrhoea and syphilis alongside counselling on the same” (FGD, male).

“...If you visit the dispensary here they will prescribe for you medicine” (FGD, female).

4.5.3 Services Offered at Sexual Health Facilities

Figure 4.18 affirms how, respondents, 38%, reported access to comprehensive services, including consultation, laboratory tests, and medication. There was also 11% of respondents who reported "other" services, suggesting potential diversity in the types of sexual health services available.

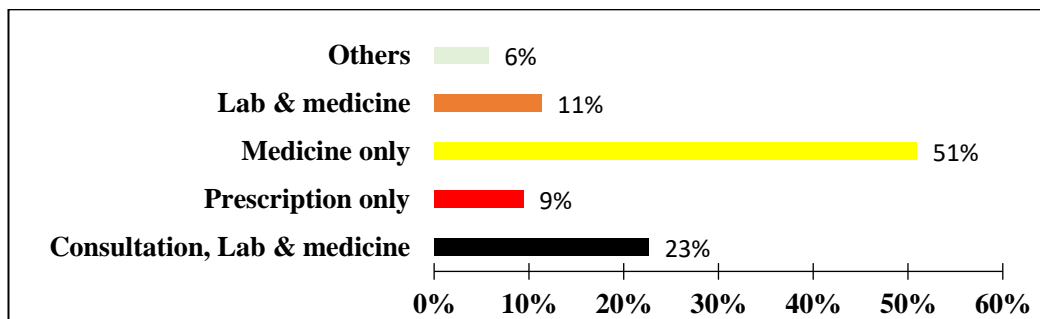


Figure 4.18: Services Offered in the Outlets

4.5.4 Charges/Fees for Treatment Services at Sexual Health Facilities

The figure 4.19 shows that 52% indicated that they encountered charges or fees when accessing these services while the 48% reported not facing any financial costs.

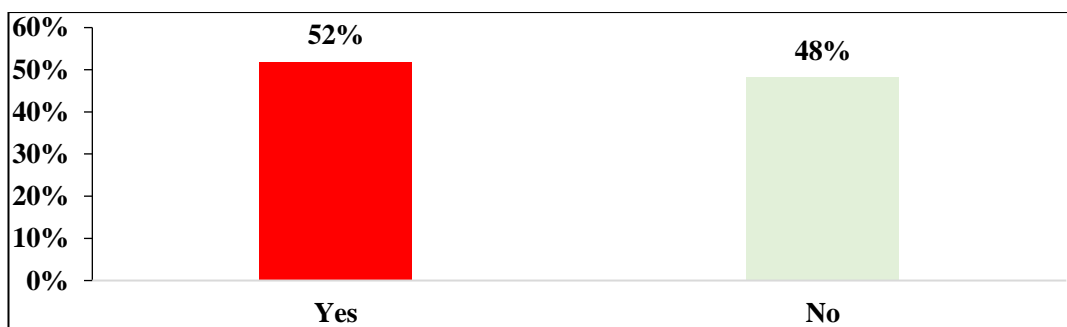


Figure 4.19: Presence of Charges (Fees) for the Services

4.5.5 Respondents Access to Sexual Health Support Services in School

The table 4.16 shows that 197(60.8%) of the students had guidance & counselling offered in their schools, 29(9%) had peer education and about 91(28.1%) had no sexual health services offered in the school.

Table 4.16: Sexual Health Support Services Existing in School

	Characteristic	Guidance & counselling	Peer education	Others	None
Sex	Female	127 (67.6%)	24 (12.8%)	31(16.5%)	31(16.5%)
	Male	70 (51.5%)	5 (3.7%)	60(44.1%)	60(44.1%)
Class	Lower Secondary	83 (61.9%)	15 (11.2%)	34(25.4%)	34(25.4%)
	Upper Secondary	114 (60%)	14 (7.4%)	57 (30%)	57 (30%)
Age	15-18 years old	175 (64.1%)	28 (10.3%)	63(23.1%)	63(23.1%)
	19 -24 years old	13 (40.6%)	0 (0%)	19(59.4%)	19(59.4%)

The qualitative findings indicates how most confirmed governmental hospitals, local retail shops, friends and public toilets as key sources for accessing contraceptives like condoms.

“We only get partial guidance and counselling services in schools which sometimes may be an avenue for a relationship with some teachers...This is tricky for us girls...Some of us get condoms from friends in the dormitories or from staff working in the school” **(FGD, girls)**.

“You see...those contraceptives are not anywhere provided by the school administration for us to pick for use but we easily find them from friends” **(FGD, boys)**.

“The group of youth which is out of school is the one that goes to hospitals to collect free condoms for those in schools” **(KII, male, 38 years)**.

Mixed reactions were also reported in regards to those carrying condoms from the sources:

“...Free condoms can be sourced from hospitals, toilets in some public places or even from friends but we don’t pick them as girls”
(KII, female, 19 years).

“Young people like us are not given condoms in those public places as they are kept inside offices...You must gather enough courage to ask for them. That is why most of us would rather collect them from older friend or engage in sex *hivyo tu (without them)*” **(FGD, males).**

“Some students have informed us that their single mothers would also pick condoms for their daughters who, in turn, give to their sexual partners...This happens mostly when the daughter brings home something at the end of the day” **(KII, female, 40 years).**

Almost all females pointed out the stigma they face when carrying condoms or even heard asking about in schools selling outlets or shops, evident from the discussion groups:

“It is really difficult for us girls to pick condoms from anywhere...you are quickly branded as morally loose or *malaya* - prostitute” **(FGD, girls).**

“There are girls who pick or steal condoms from their elder brothers and keep them far away more so from their parents” **(KII, female, 38 years).**

On the type of sexual health support services being received in schools, there were mixed reactions by respond as shown below:

“Yes, we get some counselling in the school relating to many issues such as getting disturbed in class or when experiencing some unfamiliar irritations in the private parts but it depends on who is in charge of that department as most of us girls won’t feel free to open up to men teachers in that regard” **(FGD, girls).**

“There are no sexual health support services that exist in our school. Our Head teacher is a no-nonsense Christian person who doesn’t entertain those things” **(FGD, boys).**

“We used to invite some health personnel from the nearby health facilities to talk to our students when we noticed that some of them had had their learning interrupted as they go for long periods getting treatment for sexually transmitted infections but we stopped it as they demanded to be paid money” **(KII, male 48 years).**

“If we got Sex Education back to schools probably that could be the only avenue to empower our students with some skills and knowledge on sexual matters...for now we have our matron who tries to attend to those matters like giving painkillers to girls with menstruating pain” **(KII, female, 45 years).**

“The school also takes us to Mukuru Dispensary whenever we are sick” **(KII, female, 15 years).**

“...We have tried as a school to work closely with our girls to be able to get treatment

whenever they suspect any sexual infection in their private parts” **(KII, female, 45 years).**

“We have guidance and counselling in our school, *lakini iko weak, ni spiritual sana*” **(FGD, male, 18 years).**

4.6 Choices for Sexual Health Services

4.6.1 Choices for Disclosure and Support Sought for STIs

The study shows in the table 4.17 that a majority of female respondents (37.5%), in lower secondary (39.8%) and those aged between 15-18 years (30.8%), had their parents as the preferred choice for disclosure of their STIs condition. Community

health workers was a preferred choice for disclosure of STIs condition amongst males (33.1%) and those aged between 19-24 years (32.3%). Disclosure to a sexual partner was also a preferred choice among students in upper secondary (27.9%).

In addition, a majority of both males (56.9%) and females (49.7%) would mostly chose to seek the support of Community health worker for STIs management. Health facility is still a preference choice of outlet in the event of STI contraction among a majority of males (83.3%) and females (78.7%). Preference choice of traditional medicine for STIs treatment was common among of youth aged between 19-24 years (15.6%).

Table 4.17: Choices for Disclosure and Support Sought

	Characteristics				Class	
	Sex		Age		Lower Secondary	Upper Secondary
	Female	Male	15-18 old	19-24 years old		
Choices on who to disclose to						
My sexual Partner	42(22.5%)	30(22.1%)	62(22.7%)	8(25.8%)	19(14.3%)	53(27.9%)
Teacher	12(6.4%)	14(10.3%)	23(8.4%)	1(3.2%)	10(7.5%)	16(8.4%)
Community Health Worker	35(18.7%)	45(33.1%)	68(24.9%)	10(32.3%)	33(24.8%)	47(24.7%)
Parents	70(37.4%)	25(18.4%)	84(30.8%)	3(9.7%)	53(39.8%)	42(22.1%)
Others	14(7.5%)	12(8.8%)	20(7.3%)	6(19.4%)	9(6.8%)	17(8.9%)
No one	14(7.5%)	10(7.4%)	16(5.9%)	3(9.7%)	9(6.8%)	15(7.9%)
Choice on whose support to be sought						
Community health worker	93(49.7%)	78(56.9%)	11(52.7%)	20(62.5%)	72(54.1%)	99(51.8%)
Teacher	10(5.3%)	15(10.9%)	22(8.1%)	1(3.1%)	10(7.5%)	15(7.9%)
sexual partner	18(9.6%)	10(7.3%)	23(8.4%)	4 (12.5%)	7(5.3%)	21(11%)
parents	39(20.9%)	13(9.5%)	47(17.2%)	2(6.3%)	23(17.3%)	29(15.2%)
Others	21(11.2%)	15(10.9%)	31(11.4%)	4(12.5%)	18(13.5%)	18(9.4%)
No one	6(3.2%)	6(4.4%)	6(2.2%)	1(3.1%)	3(2.3%)	9(4.7%)
Choice on where to go if contracted an STI						
Health Clinic	155(83.3%)	107(78.7%)	226(82.8%)	23(71.9%)	111(83.5%)	151(79.9%)

	Characteristics					
	Sex		Age		Class	
	Female	Male	15-18 old	years 19-24 years old	Lower Secondary	Upper Secondary
Traditional Medicine	9(4.8%)	7(5.1%)	11(4%)	5(15.6%)	4(3%)	12(6.3%)
Pharmacy	6(3.2%)	10(7.4%)	15(5.5%)	1(3.1%)	4(3%)	12(6.3%)
Parents	5(2.7%)	1(0.7%)	6(2.2%)	0(0%)	4(3%)	2(1.1%)
Others	11(5.9%)	11(8.1%)	15(5.5%)	3(9.4%)	10(7.5%)	12(6.3%)

The qualitative findings show that some participants linked this aspect to health seeking behaviour to the friendliness and understanding of the adults around them as shown in the following observations;

“Most of us girls prefer side chatting our mothers on certain sexual issues especially when you know that whoever was responsible for the infection doesn’t have money to pay for your treatment” **(FGD, girls)**.

“Boys often feel shy or even do not imagine sharing their sexual issues with anyone except with themselves. But if you find them agreeing to share them, then know that things are almost getting out of hand” **(KII, male, 38 years)**.

“The situation in boarding schools forces us to share our sexual health problems with our matron who is good and friendly...We like her because she keeps our secrets...We love her” **(FGD, girls)**.

“...When you go the hospitals, the youth with sexual related concerns are mixed with everyone in the queue like with children and women” **(KII, male, 18 years)**.

The qualitative findings show that many participants preferred private hospitals whenever they had a sexual health problem though few of them observed that they visit public facilities.

“Most times the youth prefer to go to private hospitals because they say that private hospitals provide quality treatment” **(KII, female, 15 years)**.

“... Some boys prefer to go to a herbal clinic because they believe that herbal medicine do not have side effects” **(FGD, boys)**.

“...Some girls because they do not have the money are forced to go to the dispensaries” **(FGD, female)**.

“... Privacy is also very important and this makes a lot of youth prefer to get their treatment from VCT” (**KII, male, 16 years**).

Many participants in the discussion groups also took issue with health system management of reproductive health of youth. They opined that given that they are a key population and SRH issues are sensitive in nature they would feel more comfortable if their service points were separated and tailor-made to confer a reasonable degree of privacy. They further indicated that the youth clinic would ensure that the young adults seeking SRH are served faster, in a friendlier and are guaranteed access to quality health care. Some observed;

“...I think the government is not doing much on the guidance and counselling department. Those who are doing the work they are doing it for free and they are not paid any additional monies” (**KII, female, 24 years**).

“...The government should ensure that at all times the health facility has all the required medicine because when they provide only prescription most of the youth end up suffering because they have no money to purchase the drugs” (**KII, male, 19 years**).

4.6.2 Choice for continuous use of contraceptives

The table 4.18 indicates that the primary motivation for choice in continuous use of contraceptive by both female (38.5%) and male (33.3%) respondents was to effectively prevent both unplanned pregnancies and STIs transmission, especially HIV. This motivation was also common among lower secondary students (54.5%) and upper secondary students (30.6%). For most aged 15-18 years (42.5%), they placed a greater emphasis on the prevention of pregnancy and STIs/HIV compared to most of those aged between 19-24 years (50%) whose motivation for continuous use of contraceptive was as a result of sexual encounter without protection.

Table 4.18: Reasons for Choice to Continuous Use of Contraceptives

	Characteristics					
	Sex		Class		Age	
	Female	Male	Lower Secondary	Upper Secondary	15-18 years old	19-24 years old
Sexual Encounter without any mode of protection	2(7.7%)	6(28.6%)	0(0.0%)	8(22.2%)	4(10.0%)	3(50.0%)
To prevent unwanted pregnancy & STIs/HIV	10(38.5%)	7(33.3%)	6(54.5%)	11(30.6%)	17(42.5%)	0 (0.0%)
It is easy to get	1(3.8%)	0(0.0%)	1(9.1%)	0(0.0%)	1(2.5%)	0(0.0%)
Wants to abstain	1(3.8%)	1(4.8%)	1(9.1%)	1(2.8%)	1(2.5%)	1(16.7%)
To prioritize education	3(11.5%)	2(9.5%)	1(9.1%)	4(11.1%)	5(12.5%)	0(0.0%)
Stopped sexual engagement	1(3.8%)	0(0.0%)	0(0.0%)	1(2.8%)	1(2.5%)	0(0.0%)
To feel comfortable & enjoy sex	2(7.7%)	2(9.5%)	0(0.0%)	4(11.1%)	3(7.5%)	1(16.7%)
I don't react when I use it	1(3.8%)	0(0.0%)	0(0.0%)	1(2.8%)	1(2.5%)	0(0.0%)
They are harmful & have side effects	5(19.2%)	3(14.3%)	2(18.2%)	6(16.7%)	7(17.5%)	1(16.7%)

4.7 Multiple Regression Analysis

The study multiple regression analysis was aimed at testing the hypothesis to determine the link between independent and dependent variables. It measures practices, attitudes, outlets, and choices as the independent variables and sexual health seeking behaviour as the dependent variable, and controlled for potential confounding factors (Moderators). The analysis aimed to provide insights into specific factors determining sexual health seeking behaviour within the youth or adolescents in secondary schools within Mukuru slums, Nairobi.

4.7.1 Multiple Regression Model Summary

The study shows on table 4.19 how the multiple regression model confirmed a good fit for this data, as indicated by the statistically significant F-test result, $F(5, 319) = 14.22$, $p < 0.001$. This suggests that the independent variables have a significant collective impact on sexual health seeking behaviour. The adjusted R-squared value ($\text{Adj } R^2 = 0.167$), confirms 16.7% of the variance in sexual health seeking behaviour, which is the number of predictors. While this may seem like a relatively small proportion, it is important to acknowledge the complexity of sexual health seeking behaviour as a complex phenomenon subject to different factors, to which some have not been captured in this study. The R-squared value ($R^2 = 0.180$), which explains the 18% of the total variance in the measured sexual health seeking. This highlights the presence of other factors beyond those included in the model that may contribute to explaining the remaining variance.

Table 4.19: Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F	df1	df2	Sig. F Change
	.424 ^a	.180	.167	.435	.180	14.022	5	319	.000
Predictors: (Constant), Choices, Outlets, Practices, Attitude, Moderators									

4.7.2 Coefficients of the Multiple Regression Model

The Table 4.20 presents the coefficients of the multiple regression model as follows:

$$\text{Sexual Health Seeking Behavior} = 0.473 + 0.407(\text{Moderators}) + 0.093(\text{Practices}) + 0.063(\text{Attitude}) + 0.130(\text{Outlets}) - 0.001(\text{Choices})$$

When all independent variables are zero (i.e., no moderators, practices, attitude, outlets, or choices), the predicted sexual health seeking behaviour is 0.473. Engaging in positive sexual health practices, like using condoms or seeking STI testing, is also positively associated with seeking sexual health services ($p=0.004$). For each additional unit increase in positive practices, sexual health seeking behaviour is expected to rise by 0.093 units. Having a more positive attitude towards sexual health

($p=0.002$) is another factor associated with increased sexual health seeking behaviour. A unit positive increase in attitude is linked to a 0.063-unit increase in sexual health seeking behaviour. Sexual health services (outlets) availability and accessibility significantly positively influence seeking behaviour ($p=0.015$). For each additional unit increase in outlets, sexual health seeking behaviour is expected to rise by 0.130 units. The coefficient for choices is not statistically significant ($p=0.267$), indicating that individual decision-making processes may not significantly impact their attitude and propensity to seek sexual health services in the model.

Table 4.20: Coefficients Multiple Regression Model

Model	Coefficients ^a							Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B			
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.473	.196		2.407	.017	.086	.859		
Moderators	.407	.084	.274	4.864	.000	.242	.571	.810	1.235
Practices	.093	.033	.164	2.873	.004	.029	.157	.787	1.271
Attitude	.063	.020	.161	3.075	.002	.023	.103	.942	1.061
Outlets	.130	.053	.126	2.443	.015	.025	.235	.969	1.032
Choices	-.001	.001	-.057	-1.111	.267	-.004	.001	.989	1.011

Hypothesis Testing:

H1: Practices have a significant positive influence on sexual health seeking behaviour.

This analysis has supported the hypothesis by confirmed significance between Practice and sexual health seeking behaviour ($\beta = 0.164$, $t = 2.873$, $p = 0.004$). The findings have shown positive sexual health practices, especially STI testing and regular condom use, linked to increased seeking sexual health services among the participants.

H2: Attitude has a significant positive impact on sexual health seeking behaviour.

The hypothesis has been supported, where Attitude significantly impact sexual seeking behaviours positively ($\beta = 0.161$, $t = 3.075$, $p = 0.002$). The study confirms that those who have positive attitudes towards sexual health have a higher likelihood of exhibiting and showing health-seeking behaviours.

H3: Outlets have a significant positive influence on sexual health seeking behaviour.

The analysis has supported the hypothesis on how Outlets significantly impact the individual's sexual health seeking behaviours ($\beta = 0.126$, $t = 2.443$, $p = 0.015$). The underlying suggestion and confirmation from the finding is that having sexual health services easily available and accessible facilitates health-seeking behaviours among secondary school student population.

H4: Choices have a significant influence on sexual health seeking behaviour.

The analysis does not support this hypothesis, as Choices did not influence individuals' sexual health seeking behaviour ($\beta = -0.057$, $t = -1.111$, $p = 0.267$). This result proposes that individual decision-making processes regarding sexual health may not be as influential in shaping health-seeking behaviours compared to other factors, more so attitudes, practices, and service availability.

The multiple regression analysis has shown the evidence on how Practices, Attitude, and Outlets have positive relations with youth sexual health seeking behaviours for the secondary school attending groups in Mukuru slum, Nairobi. Therefore, the factors need to be addressed and incorporated into sexual health promotion activities, interventions, and policies.

4.8 Summary of Qualitative Themes

Table 4.21 provides a summary of qualitative themes with their main responses.

Table 4.21: Summary of Qualitative Themes

Main Theme	Sub Theme	Main Responses
Practices towards seeking sexual health	Practices Towards Menstruation	<p>and “...most girls especially the young ones are not able to afford pads on their own or by their parents or guardians...This pushes some girls into cutting clothes or using tissues” (FGD, girls).</p> <p>“Sanitary towels are essential items for girls...but majority of us are not in a position to afford them. Some of us are forced to have boyfriends who will be buying for us, among other things” (KII, female, 15 years).</p> <p>“Most of these girls are really suffering bwana! Imagine a 17-year-old engaging in sex even with old adults to get money to meet her basics like buying sanitary towels...<i>Iko shida bwana</i> (there is a lot of trouble)” (KII, male, 45 years).</p>
Attitude towards condom use	Liking condom use	<p>“Though we don’t really like using it, we have been sensitized to use it for our benefit...and everywhere you go you see used ones” (FGD, boys).</p> <p>“Because some girls seem to be having many sexual partners than us, condom is a must” (FGD, boys).</p> <p>“Majority of us girls prefer asking to see a condom before agreeing to engage in sexual intercourse because pregnancy at this early age is a nightmare for many of us” (FGD, girls).</p> <p>“We walk around with a condom or two somewhere in the bag in the event <i>ukutane na mtu ghafla</i> (you suddenly meet with a girl) and you have to hide somewhere to have sex!” (FGD, boys).</p> <p>“What do you do when you suddenly corner a beautiful girl and you don’t have a condom and the lady accepts to quickly have sex with you? You may not have time to decide to go look for a condom...That’s when sex without a condom is sweet!” (KII, male, 18 years).</p>
Outlets for seeking medical attention for Sexual Reproductive Health	Services at Sexual Reproductive Health Outlets	<p>“Most of these boys will tell you what they don’t like doing. They will tell you that they are using a condom every time they have sex but wait for a week or two when they notice some pain in passing out urine and that is when you will know the story” (KII, female, 37 years).</p> <p>“There are also others who want to visit the hospital for treatment, but they are scared and want to be encouraged” (KII, male, 17 years).</p> <p>“...VCTs also provide treatment to youth like us especially when we are suffering from STIs like gonorrhoea and syphilis alongside counseling on the same” (FGD, male).</p>

Main Theme	Sub Theme	Main Responses
Choice of whom to tell upon Contracting an STI	Likeness to visiting private hospitals whenever they have a sexual health issue	<p>“Most times the youth prefer to go to private hospitals because they say that private hospitals provide quality treatment” (KII, female, 15 years).</p> <p>“...Some girls because they do not have the money are forced to go to the dispensaries” (FGD, female).</p> <p>“...Privacy is also very important, and this makes a lot of youth prefer to get their treatment from VCT” (KII, male, 16 years).</p>

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion

5.1.1 Socio-Demographic Characteristics

In most cases, national governments prioritize key measures and efforts for encouraging and including youth in healthcare service provision through different programs. Health facilities are the best settings for adolescents to access critical services, especially SRH, others including testing, preventive information, and treatment services. Equally, studies have shown how the utilisation of services among the youth has been below par and remained low due to various issues. These include the fear marginalization, negative attitudes by healthcare providers and limited or lack of age-appropriate or youth-centred services. However, there are also key issues and factors linked to socio-demographic characteristics and the utilisation or acceptance of the same services (Nmadu *et al.*, 2020).

Findings of the study confirmed a serious link between socio-demographic factors and sexual youth sexual health-seeking behaviours among the youths from Mukuru slums, Nairobi's secondary schools. Class level emerged as a crucial factor influencing school attendance during menstruation, as the statistical significance was confirmed to be $p < 0.001$ between level of class and school attendance. Girls in lower secondary classes were more likely to miss school during their periods compared to those in upper secondary. This finding aligns with research by Hennegan *et al.*, (2019), which identified inadequate menstrual hygiene management as a barrier to education for adolescent girls. The qualitative data from this study provided further insight, revealing that younger girls, particularly those experiencing menstruation for the first time, felt unprepared and uncomfortable managing their periods at school. This highlights the need for targeted interventions to support menstrual hygiene management, especially for younger adolescents. Additionally, age and school attendance during menses was found to be statistically significant ($p < 0.001$), with all

girls aged 19-24 years attending school during menstruation, compared to only 91.8% of those aged 15-18 years.

The findings also significantly associated age with contraceptive use ($p=0.017$), with older students (19-24 years) reporting higher propensity and likelihood of use than younger adolescents (15-18 years). This finding aligns with previous research in Kenya by Kabiru *et al.*, (2022), noted that older adolescents were more inclined to engaging in protected sexual activity. However, the reported lower contraceptive use among all age groups from the research (17%) is concerning and indicates that improved sexual health education and access to contraceptive services should be prioritized. The chi-square analysis revealed that class level was also significantly associated with contraceptive use ($p=0.002$), with 22.9% of upper secondary students reporting contraceptive use compared to only 9.7% of lower secondary students.

Gender disparities were evident in sexual health behaviors and service utilization. Females reported higher rates of active sexual relationships (79.1%) compared to males (65.7%), yet males reported higher rates of contraceptive use (19.7% vs. 15.9% for females). This paradox suggests that female students may face additional barriers to accessing contraceptives, potentially due to stigma or power imbalances in sexual relationships. These findings resonates with Ssekamatte *et al.*, (2020), who identified gender-specific risk factors responsible for the youths engaging in multiple sexual partners in urban centres. The study equally confirmed the mediating role of gender in condom use for the group's last sexual encounter ($p=0.008$), with a higher percentage of males (29.2%) reporting condom use compared to females (16.7%).

The study also found that living arrangements and parental occupation influenced sexual health behaviours. Students living with both parents had a higher likelihood of disclosing STI status to their partners (53.8%) than those in other living situations, but this was not a statistically significant relationship ($p=0.130$). This suggests that family structure and support may play a role in promoting open communication about sexual health. Additionally, students whose parents were engaged in formal employment showed higher rates of school attendance during menstruation (100%) compared to those whose parents were in informal employment (85%) or other occupations

(94.6%), with a significant association ($p=0.020$). These socio-demographic factors intersect to create unique vulnerabilities and opportunities for sexual health promotion among youth in Mukuru slum.

5.1.2 Practices Towards Seeking Sexual Health Services

The study revealed concerning patterns of sexual health practices among youth in Mukuru slum, highlighting the urgent need for targeted interventions. Contraceptive use was alarmingly low, with less than a fifth of sexually active students reporting use. Accordingly, the Chi-square analysis results confirmed how contraceptive use was associated with the level of class, $p<0.002$ and parental occupation, $p<0.017$. Students in upper secondary schools had higher likelihood of using contraceptives, 22.99% than 9.7% reported rate among secondary students, while students whose parents were engaged in informal employment reported the highest rates of contraceptive use (25.9%). Accordingly, the results resonates with Ezeh *et al.*, (2010) who identified inadequate contraceptive knowledge and socioeconomic factors as significant barriers to uptake among adolescents in urban slums.

Early sexual debut was prevalent, with many respondents reporting first sexual experiences at age 15 or younger. Early sexual activity onset, in addition to limited condom and contraceptive use, exposes youths to STIs and unintended pregnancies. The study found reported a clear link between age and condom use in the last sexual encounter ($p=0.001$), with 20.1% of students aged 15-18 years reporting condom use compared to 46.9% of those aged 19-24 years. This finding highlights the particular vulnerability of younger adolescents to unprotected sexual activity. Furthermore, the study revealed a significant association between having or contracting an STI and condom use ($p < 0.001$), with 56.6% of those with STIs confirming using condom in the last sexual intercourse than the 14.4% who did not.

The study reported limited knowledge on STIs among those who reported contracting them. Of the 18% who reported contracting an STI, 61% did not know the type of disease they had contracted. This knowledge gap exacerbates vulnerability to STI outcomes and underscores the need for comprehensive sexual health education. Also reported from the chi-square analysis was the confirmed relationship between the type

of STI contracted and treatment-seeking behavior ($p=0.027$), with 100% of those who knew they had gonorrhoea or candidiasis seeking treatment, compared to only 50% of those with syphilis.

Treatment-seeking behaviours for STIs varied, with about a third of respondents visiting medical clinics upon noticing symptoms, while others consulted friends or attempted self-treatment. However, it failed to confirm a significant relationship between the availability of sexual health support services in schools and seeking treatment for STIs ($p=0.080$), suggesting that school-based services did not influence or determine facilitating access to care. However, treatment completion rates for STIs were suboptimal, with only 58.5% of those who sought treatment reporting completion. Chi-square analysis revealed a significant association between the type of outlets for STI treatment and treatment completion behavior ($p=0.033$), with 88% of those who visited medical clinics completing treatment compared to only 33.3% of those who used traditional medicine.

Qualitative data provided insights into the complex social and economic factors influencing sexual behaviors in Mukuru slum. The subjects confirmed their engagement in transactional sexual relationships, mostly with older partners, for money and gifts. This resonates with *Zulu et al.*, (2002) on how urban poverty determines and promotes sexual risk behaviours. The economic pressures and limited opportunities in slum settings appear to shape sexual decision-making, particularly for young women.

These findings collectively paint a picture of the higher prevalence of risky sexual behaviours among youth in Mukuru slum, mostly defined by limited contraceptive use, sexual onset, inconsistency in using condom and delaying or failing to adhere to STI treatment. The interplay of economic pressures, limited knowledge, and social norms appears to shape these practices, highlighting why multi-faceted interventions addressing both individual behaviours and broader social determinants of sexual health is necessary.

5.1.3 Attitude Towards Seeking Sexual Health Services

The study revealed composite attitudes towards sexual health services among youth in Mukuru slum. These attitudes were shaped by various factors, especially “gender, age, class level, and prior sexual experiences”. Statistical analysis provided valuable insights into the relationships between these factors and attitudes towards sexual health services.

Gender emerged as a significant factor influencing attitudes towards sexual health services. Chi-square analysis revealed a significant association between gender and liking condom use ($p=0.287$), with 63.9% of females expressing a positive attitude towards condoms compared to 52.2% of males. This gender disparity aligns with findings from Wong (2012), which noted that attitudes towards sexual health issues evolve with age and experience, but often remain gendered. The reluctance of young women to seek services, especially from male healthcare providers, highlights the need for gender-sensitive approaches in sexual health service delivery.

Age and class level were associated with differing attitudes towards STIs and sexual health services. The study found a significant association between class level and condom use in the last sexual encounter ($p < 0.001$), with 29.7% of upper secondary students reporting condom use compared to only 10.9% of lower secondary students. The findings echo Cuffe *et al.*, (2016), which identified age-related differences in risk perception and health-seeking behaviors among adolescents. The more positive attitudes observed among older students and those in upper secondary levels suggest that increased exposure and education may contribute to more proactive health-seeking behaviours.

Privacy and confidentiality emerged as critical concerns shaping attitudes towards sexual health services. Many participants expressed a preference for separate, youth-friendly service points that could offer a higher degree of privacy. This aligns with studies focused at youth-friendly health services, which consistently identifies confidentiality as a key factor in service acceptability (Newton-Levinson *et al.*, 2017). Societal stigma linked with seeking health services, especially highly dense

communities like Mukuru slums, is a serious barrier to exploiting and using such services for the benefits of the youth population.

Attitudes towards condom use were mixed, with 57% of participants expressing positive attitudes. Chi-square analysis confirmed a positive link between socio-demographic characteristics and condom preference ($p > 0.05$ for all variables), suggesting that attitudes towards condoms may be influenced by factors beyond basic demographics. The reasons for negative attitudes included doubts about effectiveness, discomfort, and preference for condom-less sex for enhanced pleasure. These misconceptions and preferences highlight the need for targeted education and behaviour change interventions.

Interestingly, gender differences were observed in motivations for condom use. Females predominantly viewed condoms as a means of preventing unwanted pregnancies, while males focused more on STI prevention. This gendered perspective on condom use aligns with findings from Woolf and Maisto (2008) on how gender differences determine or influence condom behaviour. The focus on pregnancy prevention among females may reflect the more immediate and visible consequences of unprotected sex for young women in this context.

Furthermore, the study noted how attitudes towards sexual health services were influenced by perceptions of healthcare provider attitudes and approaches. Negative experiences or fears of judgmental attitudes from providers were cited as reasons for avoiding formal health services. This finding underscores the importance of training healthcare providers in youth-friendly service delivery and addressing provider biases.

5.1.4 Outlets for Sexual Health Services

The study revealed a diverse landscape of sexual health service outlets utilized by youth in Mukuru slum, with notable preferences and barriers influencing access and utilization. The study identified private and public facilities as primary sources of sexual health services, but usage patterns varied significantly based on gender, service type, and individual preferences.

Private health facilities emerged as a preferred option, particularly among female students. Chi-square analysis confirmed the positive link (statistically significant) between gender and individual's source of sexual health services ($p < 0.05$), with a higher proportion of females reporting use of private facilities compared to males. The same preferences were confirmed by Keesara *et al.*, (2015) after confirming how 40% of women within developing countries have been seeking contraceptives majorly from private facilities. The reasons cited in this study for preferring private facilities included perceived higher quality of care, greater privacy, and more timely service delivery. However, the higher costs associated with private facilities were noted as a potential barrier, leading some participants to adopt a mixed approach – seeking diagnosis at private facilities but obtaining medication from public facilities where it might be cheaper or free.

Public health facilities, while less preferred overall, still played a significant role in sexual health service provision, especially for more serious health concerns like STI treatment. The study confirmed that the type of STI was significantly related with the preference or choice of treatment outlet ($p=0.033$), with 88% of those who visited medical clinics completing treatment compared to only 33.3% of those who used traditional medicine. This finding is consistent with research by Sabena (2016), which found that public facilities were the most preferred choice for STI treatment among both males (46.4%) and females (93.5%). The lower cost and perceived expertise in managing critical health conditions were cited as reasons for choosing public facilities for certain services.

This study explored the association between key factors and treatment-seeking behaviour for sexually transmitted infections (STIs) among students. Chi-square analysis revealed that the availability of sexual health support services in schools and seeking treatment for STIs relationship was not statistically significant. However, a trend was observed: schools with guidance and counselling services had a higher percentage of students seeking treatment compared to schools with no services. While this difference did not reach statistical significance, it suggests that school-based services might play a role in facilitating access to care for STIs. More or further research using a larger sample size can help in confirming the association or affirm if

it is statistically significant. The study did not provide data on the use of non-traditional health service providers or sources for condoms and contraceptives, implying that there is no conclusion to be deduced from the aspects as based on information outlined in the table.

Barriers to accessing sexual health services were identified across all outlet types. Financial constraints were a significant concern, with some respondents reporting charges for services that could deter utilization. This aligns with findings from Odo *et al.*, (2018) on barriers to SRH service access among adolescents. Other barriers included concerns about privacy and confidentiality, stigma associated with seeking sexual health services, and perceived negative attitudes of healthcare providers.

Additionally, there was no significant impact of the type of outlet on whether services were charged for, suggesting that financial barriers may be present across different service providers. However, the range and quality of services offered did vary between outlets, with some providing more comprehensive care including consultation, laboratory tests, and medication, while others offered more limited services.

The study also revealed a critical gap in school-based sexual health support services. Many participants reported a lack of wide-ranging sexual health education programs and limited availability of youth-friendly services within schools. Only 60.8% of students reported having guidance and counselling services in their schools, while 28.1% reported no sexual health services at all. This gap in school-based support aligns with findings from Thongmixay (2019) on the importance of multi-component approaches to improving adolescent SRH service access and utilization.

5.1.5 Choices about Seeking Sexual Health Services

The study revealed complex decision-making processes and preferences among youth in Mukuru slum regarding their choices for sexual health services. Various factors defined and influenced these choices, including age, gender, class level, and the health concern (nature of health concern and problem). Statistical analysis provided valuable insights into the patterns and determinants of these choices.

Contraceptive choice and use emerged as a key area of decision-making, with notable gender differences. The study found that while contraceptive services were widely available, uptake was low, with less than a fifth of sexually active students reporting contraceptive use. The results from Chi-square analysis showed that contraceptive use and level class, $p < 0.002$, and parental occupation, $p < 0.017$ were statistically significant. This was confirmed by a 22.9% contraceptive use among upper secondary students than 9.7% among secondary students, while students whose parents were engaged in informal employment reported the highest rates of contraceptive use (25.9%). This low uptake aligns with findings from Casey *et al.*, (2020) in humanitarian settings, with only 16.5% confirmed as sexually active adolescents and young women reportedly confirming their use of modern contraceptives use.

Gender differences in motivations for contraceptive use were observed, with females primarily concerned about pregnancy prevention, while males focused more on STI prevention. The gendered notion on both risk and protection shows that sexual health education and services must be aligned with the specific needs and concerns of the female and male youth. This confirms the significant relationship reported between gender and using condom in last encounter with sex ($p = 0.008$), with a higher percentage of males (29.2%) reporting condom use compared to females (16.7%).

The choice of outlets for sexual health services revealed a strong preference for non-health facilities among many participants, particularly for general sexual health information and preventive services. Local retail shops, pharmacies, and community health workers were frequently mentioned as preferred sources for condoms and basic sexual health information. The analysis revealed a trend, albeit not statistically significant, indicating that schools with guidance and counselling services had a higher percentage of students seeking treatment for STIs compared to schools without such services. This observation hints at the potential role school-based services might play in facilitating access to care. It aligns with previous research highlighting, highlighting why school-based health services and interventions are necessary for improving adolescent health outcomes.

However, the study also found that for more serious health concerns, particularly STIs, formal healthcare settings like clinics and hospitals were the preferred choice. The study confirmed that type of the contracted STI and treatment outlet preference was significant ($p=0.033$), with 88% of those who visited medical clinics completing treatment compared to only 33.3% of those who used traditional medicine. This change in preference due to perceived health issue severity suggests a nuanced understanding among youth of the capabilities of different service providers. It also underscores the continued importance of formal healthcare institutions in managing critical sexual health conditions.

Financial considerations played a significant role in service choice, with some participants reporting charges for services as a barrier to access. The results echo Godia et al. (2014), a study in Kenya confirming how cost is a serious barrier for youth hindering their access to sexual and reproductive health services. It reported no significance relationship between the types of outlet and charging for the services, qualitative data suggested that cost remained a concern for many participants. Godia et al., (2014) research also highlighted that even when services were subsidized or free, associated costs such as transportation could still prevent youth from accessing care. These findings underscore the broader issue of financial barriers to healthcare access in resource-constrained areas and emphasize that comprehensive strategies are needed to provide affordable or free sexual health services for youth.

Disclosure choices regarding STI status revealed complex social dynamics. The study found that the decision to disclose STI status to sexual partners was influenced by level of class, age and relationship nature. The data from the Chi-square analysis confirmed how socio-demographic characteristics determined the disclosure behaviour of the partner ($p > 0.05$ for all variables), suggesting that disclosure decisions may be influenced by more complex personal and social factors. Older students and those in upper secondary reported higher likelihood in disclosing their sexual partners, with more parental or guardian disclosure noted among younger students and those in lower secondary. This pattern suggests that as students mature, they may develop more open communication with sexual partners about health issues. However, the overall low

rates of partner disclosure raise concerns about STI transmission risks and highlight the need for education on partner notification practices.

The choice of confidants for sexual health concerns varied, with parents, community health workers, and sexual partners being common choices depending on the individual's circumstances. Chi-square analysis confirmed that age and choice of the sought support for STIs was significant ($p < 0.05$), with older students more likely to seek support from community health workers and partners, while younger students preferred parental support. This diversity in trusted sources of support underscores the importance of comprehensive community-based approaches to sexual health education and support.

Condom use emerged as a key area of decision-making, with the majority of participants recognizing condoms as an important tool for preventing both STIs and unwanted pregnancies. However, actual condom use rates were low, with only 25% of respondents confirming that they had used condom in their last sexual encounter. Therefore, condom use and gender was statistically significant ($p=0.008$). Both age and level of class were also reportedly significant, $p<0.001$, noting the significant role of these factors on the decision to use condom among adolescents. Therefore, the best intervention to addressing the underlying gap between knowledge and practice should be by using targeted interventions. Such will involve a proper consideration of the specific motivations and barriers confronting different subgroups in the youth cohort or population.

5.2 Conclusions

The comprehensive analysis of sexual health-seeking behaviors among youth in secondary schools in Mukuru slum, Nairobi, has led to several critical conclusions as follows: -

1. There was a notable concern of the early initiation of sexual activity among youth, with many reporting sexual debut before the age of 15. This early start, combined with low rate of inconsistent condom use and low contraceptive uptake, exposing them to serious risk for abortions, unwanted pregnancies and

STIs, more so HIV. The presence of multiple sexual partnerships further exacerbates these risks. Statistical analysis revealed significant associations between age, class level, and sexual risk behaviours, particularly highlighting the vulnerability of younger adolescents.

In addition to early sexual activity, the study uncovered a significant gap in sexual health knowledge. Despite being sexually active, many youth lack comprehensive understanding about STIs, including their infection status when contracting an STI. This knowledge deficit undermines or is a barrier for making informed decisions on sexual health and seeking the necessary care or intervention. The finding that more than three fifth of those who reported contracting an STI did not know the type of disease they had, underscores the critical need for improved sexual health education. The study also revealed alarmingly low contraceptive use among sexually active youth, with less than a fifth reporting usage. This low uptake persists despite the availability of contraceptive services, suggesting barriers beyond mere access. Socio-economic factors appear to influence contraceptive behaviours, as evidenced by significant associations between contraceptive use and variables such as class level and parental occupation.

2. Gender disparities emerged as another critical issue, with significant differences in sexual behaviours, contraceptive use, and motivations for protective practices between males and females. Females report higher rates of active sexual relationships but lower rates of contraceptive use compared to males, highlighting gender-specific vulnerabilities and barriers. These disparities emphasize the need for interventions that are sensitive to the unique challenges faced by both male and female youth.

Moreover, socio-demographic characteristics such as age, class level, and living arrangements were found to be significantly associated with various sexual health behaviors and attitudes. These findings highlight the importance of tailored interventions that address the specific needs and circumstances of different subgroups within the youth population.

3. The attitude of the youth towards sexual health remains unfocused as social norms inform their feelings and behavioural practices. The youth exhibit a strong inclination of positive attitudes toward STI/HIV prevention and this inclination intensifies with students' age. However, a majority of youth in lower classes manifested negative attitude towards sexual infections despite them having active sexual relationships with multi-partners even though most did not believe they are at risk of contracting STIs. Overall, the proportion of positive attitude towards condom use among the youth is low despite the risk exposures to unprotected sex.
4. The study also identified critical gaps in school-based sexual health support services. Many participants reported a lack of comprehensive sexual health education programs and limited availability of youth-friendly services within schools. This represents a missed opportunity to reach youth with essential sexual health information and services.

Most youth do not optimize free accessible and available public outlets that offer SRH services. The services sought are majorly consultation, lab, and medicine for STIs as well as supply for condoms and contraceptives. However, accessing the services is determined by existing barriers that also determines access to high-quality SRH services within these outlets. These include parental support, privacy, societal or general stigma in addition to limited knowledge on why and how SRH services are important.

5. The study further identified complex patterns in service-seeking behaviours, with youth utilizing a diverse range of outlets for sexual health services, including formal healthcare facilities, private clinics, pharmacies, and community health workers. The choice of service outlet often depends on the nature of the health concern, with a strong preference for formal healthcare settings for more serious issues like STI treatment. However, significant barriers to service access remain, including financial constraints, stigma, and concerns about privacy and confidentiality.
6. The qualitative data also revealed the impact of economic pressures on sexual decision-making, particularly among young women. Transactional sexual

relationships were reported as a means of economic survival, emphasizing the need for interventions that address both sexual health and economic empowerment.

5.3 Recommendations

1. The first recommendation is to develop and implement comprehensive, age-appropriate sexual health education programs in Mukuru slums' secondary schools. This requires a collaboration between the Ministry of Health and the Ministry of Education to ensure a broader topical coverage in such programs. They need to cover contraceptive use, preventing STI and developing healthy relationships for influencing positive attitudes and encouraging sound or positive practices. There is an inherent need for ensuring that the programs are evidence-based and equally culturally sensitive. Such would be necessary for addressing the specific challenges and needs outlined in the study.
2. In addressing the gaps in school-based sexual health services, establishing health clinics within secondary schools in Mukuru slum is recommended. These health clinics managed by both Ministry of Health and Ministry of Education in collaboration with local authorities and NGOs where they have to offer various youth-friendly sexual and reproductive health services. Such should extend to providing contraceptives, testing and treating STIs and counselling services. Ensuring that these clinics are staffed with trained healthcare providers who are sensitive to the needs of adolescents is essential. Furthermore, community-based outreach programs should be developed and implemented to cater to the preference for non-traditional health service providers. These programs should leverage existing community resources, such as community health workers and youth peer educators, to provide sexual health information, condom distribution, and referrals to formal healthcare services. Collaboration between the Ministry of Health, local NGOs, and community leaders is vital for the success of these programs.
3. Given the significant gender disparities observed in sexual health behaviors and service utilization, gender-sensitive interventions are necessary. These interventions should address the specific barriers and motivations identified for

both male and female youth, including targeted education on condom negotiation skills for females and promoting male involvement in contraceptive decision-making.

4. Economic pressures as key factors were equally found to be heavily influencing sexual decision-making, particularly among young women. Therefore, integrating economic empowerment programs into sexual health interventions is recommended. Programs such as vocational training, microfinance initiatives, and entrepreneurship education could help reduce the economic vulnerability that contributes to high-risk sexual behaviors.
5. Improving access to youth-friendly sexual health services in private and public health facilities has equally emerged as a key recommendation. The Ministry of Health should focus on training healthcare providers in youth-friendly service delivery, ensuring confidentiality and privacy in service provision, and implementing flexible clinic hours that accommodate the schedules of school-going youth. A multi-sectoral approach involving the Ministries of Health, Education, Youth Affairs, and local government authorities is essential to address the complex factors influencing youth sexual health in Mukuru slum. This collaboration should aim to develop integrated policies and programs that address both the immediate sexual health needs of youth and the broader social determinants of health in urban slum settings.
6. Strengthening partner notification and treatment programs is necessary, given the low rates of partner disclosure for STIs. This should include education on the importance of partner notification, the development of anonymous notification systems, and the provision of support services for those disclosing STI status to partners. Considering the widespread use of mobile phones among youth, leveraging mobile health (mHealth) technologies to provide sexual health information, reminders for clinic appointments and medication adherence, and anonymous counseling services is highly recommended. This approach can help overcome barriers related to stigma and privacy concerns. Finally, establishing a robust monitoring and evaluation system to track the implementation and impact of sexual health interventions in Mukuru slum is essential. This system should include regular data collection on key indicators

of sexual health behaviors and outcomes, allowing for ongoing refinement and improvement of interventions.

7. Future research should focus on exploring the gender dynamics underlying sexual decision-making and health-seeking behaviors among youth in Mukuru slum. In-depth qualitative studies are needed to examine power dynamics in sexual relationships, gender norms around contraceptive use, and gender-specific barriers to accessing sexual health services. This research could involve individual interviews and focus group discussions with both male and female youth to understand their perspectives and experiences. Additionally, interviews with community leaders and healthcare providers could provide insights into how gender norms are reinforced or challenged at the community level. Understanding these gender dynamics is crucial for developing targeted interventions that address the unique needs and challenges faced by young men and women in accessing sexual health services. The findings from such research could inform the design of gender-sensitive health education programs, improve the provision of youth-friendly services, and guide policy recommendations to promote gender equity in sexual and reproductive health.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Amialchuk, A., & Gerhardinger, L. (2015). Contraceptive use and pregnancies in adolescents' romantic relationships: role of relationship activities and parental attitudes and communication. *Journal of Developmental & Behavioral Pediatrics*, 36(2), 86-97.
- Amongin, D., Benova, L., Nakimuli, A., et al. (2020). Trends and determinants of adolescent childbirth in Uganda: Analysis of rural and urban women using six demographic and health surveys, 1988–2016. *Reproductive Health*, 17(74). <https://doi.org/10.1186/s12978-020-00925-8>
- Amuyunzu-Nyamongo, M., Biddlecom, A. E., Ouedraogo, C., & Woog, V. (2019). *Qualitative evidence on adolescents' views of sexual and reproductive health in sub-Saharan Africa*. The Guttmacher Institute. (Original Report No. 16, pp. 36-37).
- APHRC. (2019). *Mapping for better healthcare in Nairobi's slums*. African Population and Health Research Center. Retrieved from <https://aphrc.org>
- Atuyambe, L. M., Kibira, S. P. S., Bukenya, J., et al. (2015). Understanding sexual and reproductive health needs of adolescents: Evidence from a formative evaluation in Wakiso district, Uganda. *Reproductive Health*, 12(35). <https://doi.org/10.1186/s12978-015-0026-7>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215. <https://doi.org/10.1037/0033-295X.84.2.191>

- Beguy, D, Mumah, J, Wawire, S, Muindi, K, Gottschalk, L, and Kabiru, C. W. (2013). Status Report on the Sexual and Reproductive Health of Adolescents Living in Urban Slums in Kenya. *STEP UP Technical Working Paper. Nairobi.*
- Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.
- Carael M., J & S. Allen. (1995) Women's Vulnerability to HIV/STD in sub-Saharan Africa; an Increasing evidence in Paulina Makinwa and An-Magritt Jensen (eds) women's Position and Demographic Change in sub Saharan Africa Liege: *International Union of Scientific Study of Population.*
- Casey S. E., Meghan C. G., Jessica K., Anushka K., Jean-Baptiste M., Raoza V. R. & Nathaly S.(2020) Contraceptive use among adolescent and young women in North and South Kivu, Democratic Republic of the Congo: A cross-sectional population-based survey. *PLOS Medicine* <https://doi.org/10.1371/journal.pmed.1003086>
- Centers for Disease Control and Prevention. (2015). Sexually transmitted disease surveillance 2015. U.S. Department of Health and Human Services. Retrieved from <https://www.cdc.gov/std/stats15/std-surveillance-2015-print.pdf>
- Central Bureau of Statistics. (2004) Kenya Demographic and Health survey 2003. Nairobi; CBS.
- Central Bureau of Statistics; Ministry of Planning and National Development (2002). *Kenya 1999 National Population and Housing Census. Nairobi.*
- Centre for Disease Control and Prevention. (2002) HIV/AIDS Surveillance Report.
- Centre for Disease Control and Prevention. (2021). *Condoms and STDs: Fact sheet for public health personnel).*

- Champion, V. L., & Skinner, C. S. (2008). The health belief model. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior and health education: Theory, research, and practice* (4th ed., pp. 45-65). Jossey-Bass.
- Chola, M., Hlongwana, K., & Ginindza, T. G. (2020). Patterns, trends, and factors associated with contraceptive use among adolescent girls in Zambia (1996 to 2014): a multilevel analysis. *BMC Women's Health*, 20(1), 1-11.
- Cleland, C. E. (2001). Historical science, experimental science, and the scientific method. *Geology*, 29(11), 987-990.
- Cohen M. S, Council O. D. & Chen J. S. (2019). Sexually transmitted infections and HIV in the era of antiretroviral treatment and prevention: the biologic basis for epidemiologic synergy. *Journal of the International AIDS Society*, 22(s6), e25355.
- Creswell, J. W., & Clark, V. L. P. (2004). Principles of qualitative research: Designing a qualitative study. *Office of Qualitative & Mixed Methods Research, University of Nebraska, Lincoln*.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Cuffe, K. M., Newton-Levinson, A., Gift, T. L., McFarlane, M., & Leichliter, J. S. (2016). Sexually transmitted infection testing among adolescents and young adults in the United States. *Journal of Adolescent Health*, 58(5), 512-519.
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical education*, 40(4), 314-321.
- Dodgson, J. E. (2017). About research: Qualitative methodologies. *Journal of Human Lactation*, 33(2), 355-358.

- Dodoo F.N., Zulu E.M & Ezeh AC. (2007) Urban-rural differences in the Socioeconomic deprivation; sexual behaviour link in Kenya. USA The Pennsylvania state University.
- Dodoo, F.N. & A.A. Ampofo (2001). AIDS-Related Knowledge and Behavior among Married Kenyan Men: A Behavioral Paradox?. *Journal of Health and Human Services Administration* 24(2):199-233.
- Embleton, R., Langat, J., & Otieno, F. (2023). The effectiveness of Life Skills Education in addressing sexual and reproductive health knowledge and attitudes among adolescents in Kenya. *Journal of Adolescent Health, 107(3)*, 321-330.
- Ezeh, A. C., Kodzi, I., & Emina, J. (2010). Reaching the urban poor with family planning services. *Studies in family planning, 41(2)*, 109-116.
- Feroz, A. S., Ali, N. A., Khoja, A., Asad, A., & Saleem, S. (2021). Using mobile phones to improve young people's sexual and reproductive health in low and middle-income countries: A systematic review to identify barriers, facilitators, and range of mHealth solutions. *Reproductive Health, 18(9)*. <https://doi.org/10.1186/s12978-020-01059-7>
- Forum for African Women Educationalist (2000). The News Magazine about Closing the Gender Gap in Education. *Curbing Dropout, 8(3)* July – September 2000
- Freudenberg N, Galea S & Vlahov D. (2005). Beyond urban penalty and urban sprawl: Back to living conditions as the focus of urban health. *J Community Health, 30*, 1–11.
- Glanz, K., Rimer, B. K., & Viswanath, K. (2008). *Health behavior and health education: Theory, research, and practice* (4th ed.). Jossey-Bass.
- Godia, P. M., Olenja, J. M., Hofman, J. J., & Van Den Broek, N. (2014). Young people's perception of sexual and reproductive health services in Kenya. *BMC health services research, 14*, 1-13.

- Godia, P. M., Olenja, J. M., Lavussa, J. A., Quinney, D., Hofman, J. J., & Van Den Broek, N. (2013). Sexual reproductive health service provision to young people in Kenya; health service providers' experiences. *BMC health services research*, *13*(1), 1-13.
- Government of Kenya (2010) Kenya Demographic Health Survey 2008-09, Kenya National Bureau of Statistics
- Harvey, S. M., Oakley, L. P., Washburn, I., & Agnew, C. R. (2018). Contraceptive method choice among young adults: influence of individual and relationship factors. *The Journal of Sex Research*, *55*(9), 1106-1115.
- Hennegan, J., Shannon, A. K., Rubli, J., Schwab, K. J., & Melendez-Torres, G. J. (2019). Women's and girls' experiences of menstruation in low-and middle-income countries: A systematic review and qualitative metasynthesis. *PLoS medicine*, *16*(5), e1002803.
- Hubacher, D., Olawo, A., Manduku, C., Kiarie, J., & Chen, P. L. (2021). Preventing unintended pregnancy among young women in Kenya: prospective cohort study to offer contraceptive implants. *Contraception*, *86*(5), 511-517.
- Human Rights Watch. (2001) Scared at School: Sexual Violence in South African Schools. New York: Human Rights Watch.
- Janz, N. K., & Becker, M. H. (1984). The health belief model: A decade later. *Health Education Quarterly*, *11*(1), 1-47. <https://doi.org/10.1177/109019818401100101>
- Jerop, L. I., Karonjo, J., & Mate, E. (2023). Influence of socio-economic factors on the utilization of youth-friendly reproductive health services by the youth and adolescents in Marigat Sub-County, Baringo, Kenya. *International Research Journal of Medicine and Health Sciences*, *5*(2).

- Johnson, P., Buehring, A., Cassell, C., & Symon, G. (2007). Defining qualitative management research: an empirical investigation. *Qualitative research in organizations and management: an international journal*, 2(1), 23-42.
- Kabiru C. W , Beguy D., Crichton J. & Zulu E. M. (2011) HIV/AIDS among youth in urban informal (slum) settlements in Kenya: What are the correlates of and motivations for HIV testing? *BMC Public Health*, 11(685)
- Kabiru, C. W., Beguy, D., Mumah, J., Wawire, S., Muindi, K., Gottschalk, L., & African Population and Health Research Center. (2013). Status report on the sexual and reproductive health of adolescents living in urban slums in Kenya. STEP UP Technical Working Paper. Nairobi: African Population and Health Research Center.
- Kabiru, C. W., Mumah, J. N., & Wawire, S. (2022). Socioeconomic determinants of adolescent sexual behavior in urban slums of Nairobi. *African Population and Health Research Center*. Retrieved from <https://aphrc.org/publications/socioeconomic-determinants>
- Kachota, B. J., & Kassim, M. (2021). Sexual and reproductive health information-seeking behaviour of undergraduate students at Mzumbe University, Morogoro–Tanzania. *University of Dar es Salaam Library Journal*, 16(1), 115-130.
- Karata, E. J. (2011). Sexual behaviour and risk of sexually transmitted diseases among Moshi rural district secondary school students in Kilimanjaro region, Tanzania (Doctoral dissertation).
- Karata, E. J., & Mkoma, S. L. (2013). Multiple sex partner and risk behaviour among secondary school students in Kilimanjaro, Tanzania. *Ethiopian Journal of Education and Sciences*, 9(1), 105-114.
- Katusiime, C., Schlech, W. F., Parkes-Ratanshi, R., Sempa, J., & Kambugu, A. (2016). Characteristics of sexually transmitted infections among high-risk HIV-positive patients attending an urban clinic in Uganda. *Journal of the International*

Association of Providers of AIDS Care (JIAPAC), 15(1), 36–41. <https://doi.org/10.1177/2325957413506493>

Keesara R., Juma P. A. & Harper C. C. (2015). Why do women choose private over public facilities for family planning services? A qualitative study of post-partum women in an informal urban settlement in Kenya. August. *BMC Health Services Research*, 15(1):335 DOI:10.1186/s12913-015-0997-7

Kenya National Bureau of Statistics—KNBS, National AIDS Control Council, National AIDS/STD Control Programme, Ministry of Health, Kenya Medical Research Institute, ICF International. *Kenya Demographic and Health Survey 2022*. Nairobi, Kenya: KNBS and ICF International, 2023.

Kenya. Ministry of Health, African Population, & Health Research Center. (2021). *Incidence and complications of unsafe abortion in Kenya: key findings of a national study*. African Population and Health Research Center, Incorporated.

Kimani-Murage, E., Wanjohi, M., Asiki, G., & Klipstein-Grobusch, K. (2023, November). Adolescents' dietary patterns and double burden of malnutrition in the context of urbanisation and nutrition transition: A cross-sectional study in Kenya's urban slums. In *Tropical Medicine & International Health* (Vol. 28, pp. 359-359). Wiley.

Kirengo, T. O. (2020). *Factors Affecting the Adoption of mhealth Products amongst Patients in Kenya: A Case of Embu* (Doctoral dissertation, United States International University-Africa).

Kitzinger, J. (1995). Qualitative research: introducing focus groups. *Bmj*, 311(7000), 299-302.

KNBS (2023) Kenya Demographic and Health Survey 2022 Key Indicators Report

KNBS and ICF. (2022). *Kenya Demographic and Health Survey 2022. Key Indicators Report*. Nairobi, Kenya, and Rockville, Maryland, USA: KNBS and ICF.

- Langat, J., Embleton, R., & Otieno, F. (2024). Barriers to accessing sexual and reproductive health services among adolescents in Kenya: A qualitative study. *International Journal of Reproductive Health*, 11(1), 1-10.
- Lantos, H., Manlove, J., Wildsmith, E., Faccio, B., Guzman, L., & Moore, K. A. (2019). Parent-teen communication about sexual and reproductive health: cohort differences by race/ethnicity and nativity. *International journal of environmental research and public health*, 16(5), 833.
- Levin, J. (2006). *Elementary statistics in social research*. Pearson Education India.
- Malek, A. M., Chang, C. C. H., Clark, D. B., & Cook, R. L. (2013). Delay in seeking care for sexually transmitted diseases in young men and women attending a public STD clinic. *The open AIDS Journal*, 7, 7.
- Mbewa, D. (2020). *Factors Associated With the Use of Contraceptives among Girls Attending Secondary Schools in Kisumu East Sub-County, Kenya* (Doctoral dissertation, JKUAT-COHES).
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15(4), 351-377. <https://doi.org/10.1177/109019818801500401>
- Ministry of Health (1999) AIDS in Kenya, Background, Projections, Impact, Interventions and Policy, Nairobi, National AIDS/STDs Control Programme, Ministry of Health.
- Ministry of Health (2005) Adolescent Reproductive health and Development Policy; Plan of Action 2005-2015, National Coordinating Agency for Population and Development and Division of Reproductive Health-Ministry of Health.
- Ministry of Health (2005) Sentinel Surveillance of HIV and STDs in Kenya; National AIDS and STD Control Programme, Nairobi: Ministry of Health.

- Ministry of Health (2007) Kenya AIDS Indicator survey; Preliminary report. NASCOP.
- Ministry of Health Kenya, National Coordinating Agency for Population and Development and ORC Macro 2005. Kenya Service Provision Assessment Survey 2004 Calverton, Maryland.
- Ministry of Health, National Council for Population and Development (NCPD), and ORC Macro. (2000) Kenya Service Provision assessment Survey 1999. Calverton, Maryland: MOH, NCPD, and ORC Macro.
- Ministry of Health. (2002) HIV/AIDS and Sexually Transmitted Infection in Kenya; Behavioural Surveillance Survey; NASCOP.
- Morris, J. L., & Rushwan, H. (2015). Adolescent sexual and reproductive health: The global challenges. *International Journal of Gynecology & Obstetrics*, 131, S40-S42.
- Morris, J. L., Armitage, S., Davis, J., Kaur, J., Pretty, M., Ea, S., ... & de Vries, I. (2024). Professional societies of obstetrics and gynecology as agents of change in sexual and reproductive health: FIGO's 10-country safe abortion advocacy project in Africa and Latin America. *International Journal of Gynecology & Obstetrics*, 164, 31-41.
- Mprah, W. K. (2013). Perceptions about barriers to sexual and reproductive health information and services among deaf people in Ghana. *Disability, CBR & Inclusive Development*, 24(3), 21-36.
- Mugenda, O. M., & Mugenda, A. (2003). *Research Methods in Education*.
- Mukuru Promotion Centre. (MPC)(2022). Mukuru Promotion Centre 2022 annual report: Journey together out of poverty. Retrieved from <https://www.mercymukuru.co.ke/>

- Mumah, J. N., Mulupi, S., Wado, Y. D., Ushie, B. A., Nai, D., Kabiru, C. W., & Izugbara, C. O. (2020). Adolescents' narratives of coping with unintended pregnancy in Nairobi's informal settlements. *PLoS One*, *15*(10), e0240797.
- Mungai, S. M., & Karonjo, J. M. (2018). Reproductive health knowledge among college students in Kenya. *BMC public health*, *18*, 1-7.
- Murigi, M., Butto, D., Barasa, S., Maina, E., & Munyalo, B. (2016). Overcoming Barriers to Contraceptive Uptake among Adolescents: The Case of Kiambu County, Kenya. *Journal of Biosciences and Medicines*, *4*, 1-10.
- Mutua, M., Adero, G., Njeri, A., Abajobir, A., Anono, E., Tira, C., ... & Munjuri, D. (2023). Urban Health Study, Technical Report, Kenya.
- Mutumba, Massy & Ssewamala, Fred & Namirembe, Rashida & Sensoy Bahar, Ozge & Nabunya, Proscovia & Neilands, Torsten & Tozan, Yesim & Namuwonge, Flavia & Nattabi, Jennifer & Laker, Penina & Mukasa, Barbara & Mwebembezi, Abel. (2022). A Multi-level Integrated Intervention to Reduce the Impact of HIV Stigma on HIV Treatment Outcomes among Adolescents Living With HIV in Uganda: Protocol for a Randomized Controlled Trial (Preprint). *JMIR Research Protocols*. *11*. 10.2196/40101.
- Mwangi, A. W. (2022). Breaking barriers: A comprehensive exploration of challenges and strategies for promoting IPT adherence in Eastlands, Nairobi. *Hollex Journal of Health Education*, *10*(1), 1-21.
- Nairobi City County Department of Health (2022). *Nairobi City County Health Progress Report (KHIS)*. Nairobi. Nairobi City County.
- National AIDS and STI Control Programme (2009): Kenya AIDS Indicator Survey 2007: Final
- National AIDS and STI Control Programme (NASCOP). (2019). *Facilitators and Barriers to Antiretroviral Therapy Adherence in Kenya: A Qualitative Study in*

Three Counties in Kenya – Homabay, Siaya and Nairobi. Final Report. Nairobi, Kenya: Ministry of Health.

National AIDS Control Council and National AIDS & STIs Control Programme (2018). Kenya HIV Estimates. Nairobi, Kenya

National Syndemic Diseases Control Council. (2023). Addressing the triple threat: Teenage pregnancies, sexual gender violence, and new HIV infections through education. NSDCC. Retrieved from <https://nsdcc.go.ke>

Neal, S. E., Chandra-Mouli, V., & Chou, D. (2015). Adolescent first births in East Africa:

Newton-Levinson, A., Leichter, J. S., & Chandra-Mouli, V. (2016). Sexually transmitted infection services for adolescents and youth in low-and middle-income countries: perceived and experienced barriers to accessing care. *Journal of Adolescent Health, 59*(1), 7-16.

Newton-Levinson, A., Leichter, J. S., & Chandra-Mouli, V. (2017). Help and care seeking for sexually transmitted infections among youth in low-and middle-income countries. *Sexually transmitted diseases, 44*(6), 319.

Nkuraiya, B., & Kibera, L. W. (2019). Providing Sanitary Towels to Teenage Girls: Implications for Retention and Academic Performance in Public Primary Schools in Narok North Sub-County, Kenya. *Eastern Africa Journal of Contemporary Research, 1*(2), 126-136.

Nmadu, A. G., Mohamed, S., & Usman, N. O. (2020). Adolescents' utilization of reproductive health services in Kaduna, Nigeria: the role of stigma. *Vulnerable Children and Youth Studies, 15*(3), 246-256.

Ochako, R., Osuka, D. A., Austrian, K., Kangwana, B., Soler-Hampejsek, E., & Maluccio, J. A. (2022, April). Evaluation of a girl-centered male engagement program on sexual and gender-based violence and gender norms in Nairobi's urban informal settlements. In *PAA 2022 Annual Meeting*. PAA.

- Odo, A. N., Samuel, E. S., Nwagu, E. N., Nnamani, P. O., & Atama, C. S. (2018). Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: a mixed methods approach. *BMC health services research*, *18*(1), 1-12.
- Orji, R., Vassileva, J., & Mandryk, R. L. (2012). Towards an effective health interventions design: An extension of the health belief model. *Online Journal of Public Health Informatics*, *4*(3), 1-30. <https://doi.org/10.5210/ojphi.v4i3.4321>
- Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European journal of education studies*.
- Ravindran, T. S., & Govender, V. (2020). Sexual and reproductive health services in universal health coverage: a review of recent evidence from low-and middle-income countries. *Sexual and reproductive health matters*, *28*(2), 1779632.
- Riley LW, Ko AI, Unger A., Reis MG. (2007) Slum Health: Diseases of Neglected Populations *BMC Int Health Human Rights* 7:2
- Rosenstock, I. M. (1974). Historical origins of the health belief model. *Health Education Monographs*, *2*(4), 328-335. <https://doi.org/10.1177/109019817400200403>
- Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior and health education: Theory, research, and practice* (4th ed., pp. 465-485). Jossey-Bass.
- Samkange-Zeeb, F. N., Spallek, L., & Zeeb, H. (2011). Awareness and knowledge of sexually transmitted diseases (STDs) among school-going adolescents in Europe: a systematic review of published literature. *BMC public health*, *11*(1), 1-12.
- Sani, A. S., Abraham, C., Denford, S., & Ball, S. (2016). School-based sexual health education interventions to prevent STI/HIV in sub-Saharan Africa: a systematic review and meta-analysis. *BMC public health*, *16*, 1-26.

Sexually Transmitted Infections among adolescents: The need for adequate Health services, Geneva

Sharma, A., McCabe, E., Jani, S., Gonzalez, A., Demissie, S., & Lee, A. (2021). Knowledge and attitudes towards contraceptives among adolescents and young adults. *Contraception and Reproductive Medicine*, 6(1), 1-6.

Sidi H, Loh S. F/, Mahadevan R., Puteh S. E., Musa R., Wong C. Y/, *et al.*, (2013). Knowledge and attitude on sex among medical students of a Malaysian university: a comparison study. *Asia Pac Psychiatry*. 5. 103–9.

Sivakami, M., van Eijk, A. M., Thakur, H., Kakade, N., Patil, C., Shinde, S., ... & Phillips-Howard, P. A. (2019). Effect of menstruation on girls and their schooling, and facilitators of menstrual hygiene management in schools: surveys in government schools in three states in India, 2015. *Journal of global health*, 9(1).

Ssekamate, T., Nalugya, A., Mugambe, R. K., Wagaba, B., Nakalembe, D., Mutebi, A., ... & Buregyeya, E. (2023). Prevalence and predictors of sex under the influence of psychoactive substances among young people in informal settlements in Kampala, Uganda. *BMC public health*, 23(1), 801.

Starrs A. M., Ezeh A. C., Barker G., Basu A., Bertrand J. T., Blum R., *et al.*, (2018). Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *The Lancet*. 391(10140):2642–92. 10.1016/S0140-6736(18)30293-9

Stokols, D. (1996). Translating social ecological theory into guidelines for community health promotion. *American journal of health promotion*, 10(4), 282-298.

Tariq, S., & Woodman, J. (2013). Using mixed methods in health research. *JRSM short reports*, 4(6), 2042533313479197.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International journal of medical education*, 2, 53.

Thongmixay, S., Essink, D. R., Greeuw, T. D., Vongxay, V., Sychareun, V., & Broerse, J. E. (2019). Perceived barriers in accessing sexual and reproductive health services for youth in Lao People's Democratic Republic. *PLoS One*, *14*(10), e0218296.

UNAIDS (2023) Global HIV & AIDS statistics — Fact sheet

UNAIDS, World Health Organization,. (2018). Global HIV/AIDS Epidemic: Challenges and Opportunities for Ending the Epidemic by 2030. *The Lancet Global Health*.

UNAIDS, World Health Organization. (2019). The Global HIV/AIDS Epidemic: A Decade of Progress and Ongoing Challenges. *The Lancet*.

UNAIDS, World Health Organization. (2022). Global HIV and AIDS Epidemic: A Review of Epidemiology, Prevention, and Treatment. *Global Health Perspectives*.

Unger A. & Riley LW. (2007) Slum Health: From Understanding to Action *PLoS Med* *4*(10), e295, doi:10.1371/journal.pmed.0040295.

UN-Habitat. (2021). *Annual Report 2021: Responding to conflict, pandemic, and climate emergencies in human settlements*. UN-Habitat. Retrieved from <https://unhabitat.org>

United Nations (2000). United Nations Millennium Declaration. Edited: Assembly TG/ United Nations.

United Nations (2005) Population, Development and HIV/AIDS with Particular emphasis on poverty: The concise report, United Nations Publication.

United Nations Human Settlements Programme (2002). Defining Slums: Towards an operational definition for measuring slums. Background Paper 2, Expert Group Meeting on Slum Indicators, October. Nairobi.

- United Nations Human Settlements Programme (2003). *The Challenge of Slums: Global Report on Human Settlements*. London: Earthscan Publications.
- United Nations Human Settlements Programme (2006). *State of the World's Cities 2006/2007*. London: Earthscan Publications.
- United Nations Human Settlements Programme (2008). *The State of Africa's Cities*. Nairobi.
- United Nations Population Fund (UNFPA). (2024). *Enhancing adolescent sexual & reproductive health in Kenya*. UNFPA Kenya. Retrieved from <https://kenya.unfpa.org/en/enhancing-adolescent-sexual-reproductive-health-kenya>
- United Nations. (1998) *World Urbanisation Prospects: The 1996 Revision*. New York United Nations, Department of Economic and Social Affairs, Population Division.
- United Nations: Joint United Nations Programme on HIV/AIDS (2007) *Global HIV/AIDS Report*.
- Vlahov D., Freudenberg N., Proietti F., Ompad D. & Quinn A. (2007) Urban as a Determinant of Health, *Journal of Urban Health* 84.
- Wado, Y. D., Sully, E. A., & Mumah, J. N. (2019). Pregnancy and early motherhood among adolescents in five East African countries: a multi-level analysis of risk and protective factors. *BMC pregnancy and childbirth*, 19, 1-11.
- Widman, L., Choukas-Bradley, S., Noar, S. M., Nesi, J., & Garrett, K. (2016). Parent-adolescent sexual communication and adolescent safer sex behaviour: a meta-analysis. *JAMA pediatrics*, 170(1), 52-61.
- Wilson, A., Musyoki, H., Avery, L., Cheuk, E., Gichangi, P., ... Bhattacharjee, P. (2020). Sexual and reproductive health among adolescent girls and young

women in Mombasa, Kenya. *Sexual and Reproductive Health Matters*, 28(1).
<https://doi.org/10.1080/26410397.2020.1749341>

Wong L. P. (2012). An exploration of knowledge, attitudes and behaviours of young multiethnic Muslim-majority society in Malaysia in relation to reproductive and premarital sexual practices. *BMC Public Health*. 12(1):865

Woolf, S. E., & Maisto, S. A. (2008). Gender differences in condom use behavior? The role of power and partner-type. *Sex roles*, 58, 689-701.

World Health Organisation (1995). A Rapid Assessment of Health Seeking Behaviour in Relation to Sexually Transmitted Disease (Draft Protocol)

World Health Organization (2005). Sexually transmitted infections, Facts Sheet, Geneva

World Health Organization (2011): Guideline on HIV disclosure counselling for children up to 12 years of age. Geneva

World Health Organization (2017). Sexual health and its linkages to reproductive health: an operational approach.

World Health Organization (WHO). (2022). Sexually transmitted infections (STIs). [Fact sheet]. Retrieved from

Yakubu, I., Garmaroudi, G., Sadeghi, R., Tol, A., Yekaninejad, M. S., & Yidana, A. (2019). Assessing the impact of an educational intervention program on sexual abstinence based on the health belief model amongst adolescent girls in Northern Ghana, a cluster randomised control trial. *Reproductive health*, 16, 1-12.

Ziraba, A. K., Ezeh, A., Bankole, A., Cleland, J., García-Moreno, C., & Temmerman, M. (2022). Burden of reproductive ill health. In R. E. Black (Eds.) et al., *Reproductive, maternal, newborn, and child health: Disease control priorities, Fourth Edition (Volume 3)*. The International Bank for Reconstruction and Development / The World Bank.

Ziraba, A. K., Izugbara, C., Levandowski, B. A., Gebreselassie, H., Mutua, M., Mohamed, S. F., ... & Kimani-Murage, E. W. (2015). Unsafe abortion in Kenya: a cross-sectional study of abortion complication severity and associated factors. *BMC pregnancy and childbirth*, *15*, 1-11.

Zulaika, G., Bulbarelli, M., Nyothach, E., et al. (2022). Impact of COVID-19 lockdowns on adolescent pregnancy and school dropout among secondary schoolgirls in Kenya. *BMJ Global Health*, *7*(e007666). <https://doi.org/10.1136/bmjgh-2021-007666>

Zulu E.M, Dodoo F.N. & Ezeh A.C. (2002) Sexual Risk-Taking in the Slums of Nairobi, Kenya; *Population Studies*.

APPENDICES

Appendix I: Questionnaire

SEXUAL HEALTH SEEKING BEHAVIOURS AMONG YOUTH IN SECONDARY SCHOOLS IN MUKURU SLUMS, NAIROBI

Instructions:

- ✓ Put a tick (✓) in the appropriate box or fill in the space provided.

Name of the school _____

Class _____

Section A

Name (optional) _____

1. Sex of respondent

1. Male

2. Female

2. Date of Birth _____

3. Marital _____ status

4. What is your religion?

1. Catholic

2. Protestant

3. Muslim

4. Other

(specify) _____

5. Whom do you live with?

1. Both parents

2. Father

3. Mother

4. Other

(specify) _____

6. What is the occupation of your parent/guardian?

1. Housewife

2. Nurse

3. Teacher

4. Petty trade

5. Others (specify) _____

7. How many siblings do you have? _____

Section B

(Question 8 to 15 for female Respondents)

8. When did you last have your menstruation? _____

9. How long did the menstruation last?

1. 3 days 2. 3-6 days 3. More than 6 days

10. Did you attend school throughout the days during your menstruation

1. Yes 2. No (if no please give reasons) _____
- _____

11. If had pain during the menstruation, where did you source for treatment

1. Clinic 2. Shop 3. Pharmacy
4. Others (please specify) _____

12. What treatment did you take?

1. Medicine 2. Others (please specify)
- _____

13. Did you use a pad during the menstruation?

-

22. If no would you be willing to be circumcised?

1. Yes 2. No

23. Have you ever had sex?

1. Yes 2. No

24. How old were you when you first had sex? _____

25. Do you have a sexual partner?

1. Yes 2. No

26. In your last sexual encounter did you use a condom? (If no skip to Q 30)

1. Yes 2. No 3. Can't Recall

27. What was the reason for condom use?

1. To prevent pregnancy 2. To prevent STIs/HIV
3. Others (specify) _____

28. Who initiated the use of condom?

1. Self 2. Partner

29. Did you like using a condom?

1. Yes 2. No

Give an explanation for your answer.

30. Have you used any contraceptive before?

1. Yes 2. No (if no skip to Q35)

1. 1-2 days

2. 3-4 days

3. 5-7 days

4. 1-2 weeks

5. 3-4 weeks

6. More than a month

40. Did you seek treatment for the STI

1. Yes

2.No (if no skip to Q47)

41. Where did you go for treatment?

1. Medical clinic

2. Pharmacy

3. Traditional medicine

4. Others

(specify)_____

42. What services did you receive?

1. Consultation, Lab and medicine

2. Consultation and Prescription

3. Consultation and Medicine

4. Consultation, lab and prescription

5. Others (specify)_____

43. Did you complete treatment?

1. Yes

2. No

44. Did you take decisions on seeking treatment on your own?

1. Yes

2.No

45. How did you feel about your visit to the medical clinic?

1. Quality service

2. Have no medicine

3. Not good

4.Others (specify)_____

46. Did you tell your partner that you were visiting clinic for treatment of STI?

1. Yes

2.No

47. Where do you find sexual health services?

1. Private

2.Public (GoK)

3. Traditional healers

4.NGOs

5. I don't Know

6.Others (specify) _____

(If don't know, skip to Q51)

48. Have you visited any?

1. Yes

2. No

49. Which services do they provide?

1. Consultation, lab, medicine

2. Consultation, prescription

3. Consultation, medicine

4. Consultation, lab, prescription

5. Others (specify) _____

50. Are there charges for treatment services?

1. Yes

2. No

51. What sexual health support services exist in the school?

1. Guidance and counselling

2. Peer education

3. None

4. Others (specify) _____

52. Whom would you tell if you had an STI?

1. Tell my partner

2. Community health workers

3. Tell my teacher

4. Others Specify

53. Whose support would you seek for treatment?

1. CHWs

2. Teachers

3. Partner

4. Others (specify) _____

54. Where would you go if you suspect you had an STI?

1. Health clinic

2. Traditional medicine

3. Pharmacy

4. Others (please specify) _____

55. Give reasons for your choices

Appendix II: Focus Group Discussion (FGD) Guides

SEXUAL HEALTH SEEKING BEHAVIOURS AMONG YOUTH IN SECONDARY SCHOOLS IN MUKURU SLUMS, NAIROBI

Areas of discussion:

- ❖ Attitudes and practices on seeking sexual health among youth
 - ❖ Outlets for sexual health services for youth
 - ❖ Choices for sexual health services for youth
1. Do you think sexual health is a problem among youth in secondary schools within Mukuru slums?
 - a. What are the sexual health problems?
 - b. What causes these sexual health problems?
 2. What genital conditions do youth believe to be STIs?
 3. What genital conditions do youth believe not to be STIs?
 4. What do youth do when
 - a. They have genital conditions that are believed to be STIs?
 - b. They have genital conditions that are believed not to be STIs?
 - c. Why?
 - d. Where do they go for help?
 - e. When do they go for help?
 5. Where do youth go for
 - a. Contraceptive?
 - b. Condoms?
 - c. Problems related to their menstruation?
 6. What programmes address sexual health problems in the school and community?
 - a. Where are they?
 - b. Who manages them?
 - c. What services do they provide?
 7. What is the perception of youth about government health facilities addressing sexual health?

- a. Do you think the health facilities are sufficient in addressing sexual health issues among youth?
8. What is the general opinion of youth regarding circumcision?
9. How can youth be supported to increase uptake of sexual health services?

Appendix III: KII Guide (*For Student Representatives*)

SEXUAL HEALTH SEEKING BEHAVIOURS AMONG YOUTH IN SECONDARY SCHOOLS IN MUKURU SLUMS, NAIROBI

Areas of discussion:

- ❖ Attitudes and practices on seeking sexual health among youth
 - ❖ Choices for sexual health services for youth
1. What is the situation regarding having more than one sexual partner?
 2. What STIs are common among your peers?
 - a. What genital conditions are believed to be STIs?
 - b. What non-genital conditions are believed to be STIs?
 - c. What are the beliefs about causation of the conditions named above?
 - d. What diseases are related to sex?
 - e. What causes these conditions that are related to sex?
 3. What do your peers do upon recognition of these symptoms?
 - a. How do people know when they have the diseases/conditions listed above?
 - b. What are the symptoms (what do people look for)?
 4. What help do they seek upon realizing they have the above conditions?
 - a. Who do they tell?
 - b. Where do they go for help (in any particular order)?
 5. Complications
 - a. What happens to people with these conditions who don't go for treatment?
 - b. Who else is involved with these people?
 - c. What are the long term problems such people have?
 6. Who is at risk
 - a. Who gets the above conditions (which type of people)?
 - b. What do you and others think of them?
 7. Prevention
 - a. How do people prevent these conditions?

- b. Are condoms available locally?
- c. What is the perception of your peers on circumcision?

8. Contraceptives

- a. What is the perception of your peers on contraceptives?
- b. Which are the commonly used contraceptives among your peers?
- c. Where do your peers source their contraceptives?

9. What do most girls use during their menstruation?

Appendix IV: KII Guide (*For Staff*)

SEXUAL HEALTH SEEKING BEHAVIOURS AMONG YOUTH IN SECONDARY SCHOOLS IN MUKURU SLUMS, NAIROBI

Areas of discussion:

- ❖ Practices on seeking sexual health among youth
- ❖ Choices for sexual health services for youth
 1. What is your role in the school?
 2. Mainly which category of student uses your services?
 3. What are the common sexual health services do students seek?
 4. What are the most common conditions (STIs) that student present with, and what assistance do they seek?
 5. How do the students understand these conditions?
 6. Where do you think the student go first when they have symptoms of STIs?
 7. What are the other sources of care that exists for students with these conditions (STIs)?
 8. What is the main obstacles student face when seeking STI treatment early on in the course of an infection?
 9. Contraceptives
 - a. Where do students source their contraceptives?
 10. Menstruation
 - a. What are the issues related to menstruation?
 - b. What do most girls use during their menstruation?
 11. Other health care providers
 - a. What to students think the role of e.g. pharmacies, herbalists is
 - b. What is the perception of students on government health clinics
 - c. What is the perception of students on your role in the school

Appendix V: Informed Consent

SEXUAL HEALTH SEEKING BEHAVIOURS AMONG YOUTH IN SECONDARY SCHOOLS IN MUKURU SLUMS, NAIROBI

Purpose of the study

The aim of this study is to understand behaviours related to seeking sexual health services and support and anything you perceive as hindrances to seeking sexual health services once you have sexual health issues. Some of the principle areas of inquiry will include:

- Common practices and attitudes on seeking sexual health
- How individual feel about sexual health services
- Popular sources of sexual health services
- Choices for sexual health services for youth
- Barriers to sexual health services

Procedures to be followed

If you volunteer to participate in this study, we would ask you to do either of the following things:

- Fill a questionnaire or
- Participate in a Focus Group Discussion or in a Key Informant Interview as will be guided by the investigator

This will take approximately 30-40 minutes.

Risks

There are no known risks associated with participating in this research. But some of the questions may appear uncomfortable for you but it is necessary for you to answer them with honesty as this would help us come up with specific interventions that would improve sexual healthcare for the youth.

Benefits

You should not expect your condition or your child's condition to improve as a result of participating in this research. But a probable benefit of participating in this study is that you or your child will be able to learn preventive measures that can help reduce susceptibility to sexual health problems, including pregnancy, STIs and HIV and treatment strategies that can reduce your vulnerability to the impact of sexual health problems. You or your child may also benefit from referral for further sexual health related support in circumstance that the respondent is affected. The findings from this study might help the programme managers improve sexual health policies and service provision.

Privacy and Confidentiality of the records

The only people who will know that you are or your child is a research subject are the members of the research team and if appropriate, your or your child's teacher. No information about you or your child or provided by you during this research will be disclosed to others without your written permission, except if necessary to protect your rights or your child's welfare, or if required by law.

When the results of the research are published or discussed in conference, no information will be included that would reveal your or child's identity. If photographs are taken or voices recorded, they will be used purely for educational purposes and your or child's identity will be protected or disguised. In case the officials from Institute of Tropical Medicine and Infectious Diseases (ITROMID, KEMRI), or Jomo Kenyatta University of Agriculture and Technology will review your records or your child's records for the study, they will protect your or child's privacy.

Consequences of withdrawal

Your or your child's participation in this study, which may be in the form of an interview or group discussion, is completely voluntary. Your refusal or your child's

refusal to participate in the study or revoke your consent will have no penalty or loss of benefits to which you are otherwise entitled.

Obtaining additional information

You or your child is encouraged to ask any questions to clarify any issues at any time or ask questions at any time during your participation in the study. If you later think you need more information you may call 0720-382811 and ask for Rose Oloo or email oloorose@gmail.com

If you have any questions or concerns regarding the study and would like to talk to someone other than the researcher (s), you are encouraged to contact the following:

The Director,

Institute of Tropical Medicine and Infectious Diseases (ITROMID)

Jomo Kenyatta University of Agriculture and Technology (JKUAT)

P.O. Box 62000- 00200, Nairobi

Telephone no: 067- 52711

Email: itromid@nairobi.mimcom.net

OR

The Chairman

KEMRI National Ethical Review Committee,

P.O. Box 54840 00200, Nairobi

Telephone no 2722541, 2713349, 0722 205901

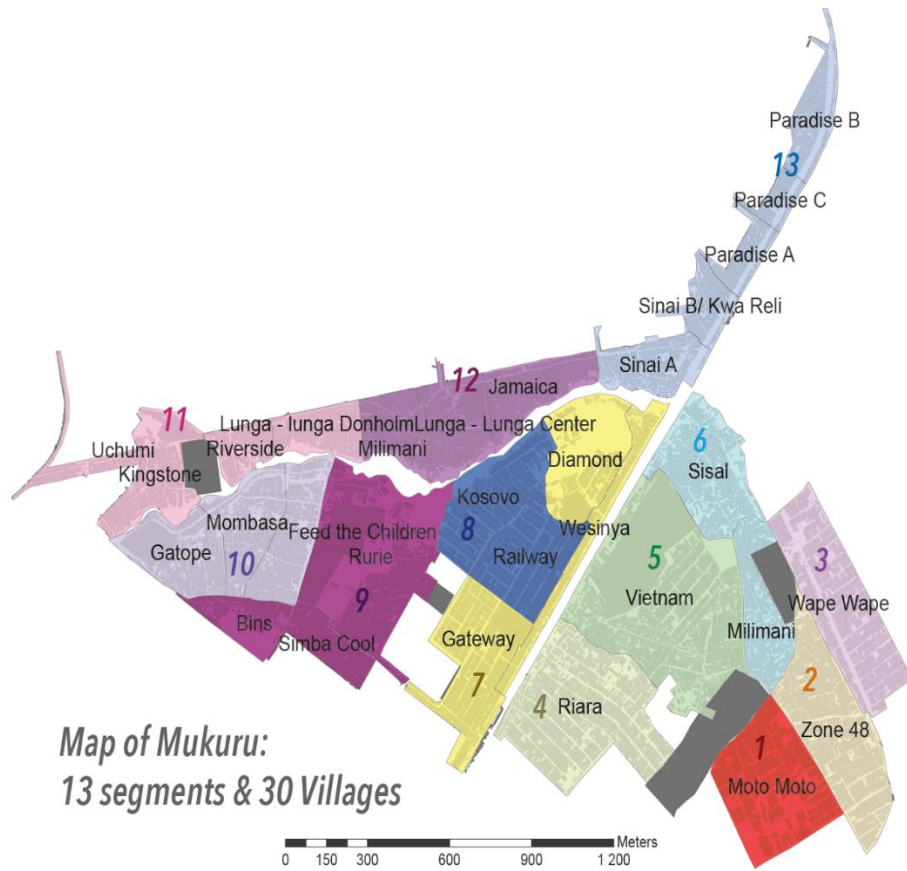
Email: info@kemri.org

I have read the above information and have had the opportunity to ask questions and all of my questions have been answered satisfactorily. I consent to participate in the study as has been explained and as I have understood it.

Name of Parent/guardian or interviewee.....Signature.....

Name of interviewerSignature

Appendix VI: Map of Study Site



Source: (Google Maps, 2024)

Mukuru Slum, Nairobi, Kenya

Appendix VII: Ethical Approval Letter



KENYA MEDICAL RESEARCH INSTITUTE

P.O. Box 54840-00200, NAIROBI, Kenya
Tel: (254) (020) 2722541, 2713349, 0722-205901, 0733-400003; Fax: (254) (020) 2720030
E-mail: director@kemri.org info@kemri.org Website: www.kemri.org

KEMRI/RES/7/3/1

November 7, 2011

TO: ROSE ANYANGO OLOO (PRINCIPAL INVESTIGATOR)

**THROUGH: DR. YERI KOMBE,
THE DIRECTOR, CPHR,
NAIROBI**

Dear Madam,

**RE: SSC PROTOCOL No. 1861 – 2ND REVISION (RE-SUBMISSION): SEXUAL
HEALTH SEEKING BEHAVIOURS AMONG YOUTH IN SECONDARY SCHOOLS
IN MUKURU SUMS, NAIROBI, KENYA**

Reference is made to your letter dated October 21, 2011.

This is to inform you that the Ethics Review Committee (ERC) determines that the issues raised at the initial and subsequent reviews have been adequately addressed. Consequently, the study is granted approval for implementation effective this **7th day of November 2011**.

Please note that authorization to conduct this study will automatically expire on **November 5, 2012**. If you plan to continue with data collection or analysis beyond this date, please submit an application for continuing approval to the ERC Secretariat by **September 24, 2012**.

Any unanticipated problems resulting from the implementation of this protocol should be brought to the attention of the ERC. You are also required to submit any proposed changes to this protocol to the SSC and ERC prior to initiation and advise the ERC when the study is completed or discontinued.

You may embark on the study.

Sincerely,

**CHRISTINE WASUNNA,
FOR: SECRETARY,
KEMRI ETHICS REVIEW COMMITTEE**

Appendix VIII: Publication

Outlets for Sexual Health Services amongst Youth in Public Secondary Schools in Mukuru Slums, Nairobi

Oloo Rose *, Anselimo Makokha**Joseph Mutai*** *(Institute of Tropical Medicine and Infectious Diseases, Kenya Medical Research Institute, Nairobi, Kenya Email: oloorose@gmail.com) ** (Department of Public Health, , Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya Email: anmakokha@gmail.com) ** (Department of Public Health,,Kenya Medical Research Institute, Nairobi, Kenya Email: drjoemutai@gmail.com

Abstract:

Outlets for sexual health services are increasingly becoming a global public health concern in sexual reproductive health of the youth as they struggle to balance their pursuit and performance in education and the effect of their sexual behavior on their lives. Studies have indicated that access to basic sexual reproductive health services continue to jeopardize the health of the youth as they struggle to also cope up with the consequences associated with the growing health needs from emerging public health concerns. The Ministry of Health in Kenya is recording high prevalence of sexually transmitted infections including HIV amongst the youth. Urban residents have a significantly higher risk of HIV infections (7.2%) than rural residents (6.0%) A majority of annual new HIV/AIDS infections occur among youth aged 15-24 years, the majority of whom are in secondary school levels due to their high sexual activity. The main objective of this study was to determine outlets for sexual health services amongst youth in secondary schools in Mukuru slums in Nairobi. The study adopted a cross sectional descriptive design that utilized both quantitative and qualitative techniques of data collection. The study was conducted in three purposively selected secondary schools in Mukuru slum, Nairobi County amongst the youth aged 15 to 24 years. A sample size of 335 was determined and stratified sampling procedure was used. Data was collected using semi structured questionnaire and 6 focus group discussions which were both administered and conducted amongst the study population. This study received scientific and ethical approval from the Scientific Steering Committee at the Kenya Medical Research Institute. Participants were taken through all the consenting processes prior to their acceptance to participate in the study. The results show that there were more females (57.8%) respondents than males (42.2%). Many of the female respondents (81.1%) indicated that they had first sex before they turned 10 years than few male respondents (12.2%). About 50% of respondents visited private facilities to seek medication services. Among those who visited public hospitals, 27% of the respondents sought services for consultation, lab, and medicine while 13% of the respondents indicated that they visited traditional healers. There were many females (21.8%) who indicated that they visited private hospitals for STI treatment. However, the type of outlet or facility (p-value 0.000