DETERMINANTS OF UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES AMONG UNIVERSITY STUDENTS, NAIROBI CITY COUNTY, KENYA

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SEPTEMBER, 2023

DECLARATION

I confirm that this thesis is my original work and has not been presented at Kenyatta University or any other institution for academic qualification or certification. The thesis has been finalized by referenced works properly acknowledged. Where text, data, graphic, picture or tables have been borrowed from other works – including the internet, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulations.

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DEDICATION

This thesis is dedicated to my wife, Eva and children, Satyanna and Leonora for their love, understanding and support as I pursued my studies. I also appreciate my parents, Alice and Alfayo Ongwae for instilling the values of discipline and hard work in me. To all those who have played a role in my education and upbringing including my siblings, teachers, relatives, and friends, this is for you.

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OPERATIONAL DEFINITION OF TERMS

Demographic dividend: The increase in the economy that can be attributed to improved reproductive health, mainly due to decreased fertility rates and improved productivity that leads to a shift in the structure of a population reducing the number of dependents.

Gender: Is a socially constructed definition of women and men. Gender is determined by the way tasks and roles are distributed to women and men in a given society.

Health facility: The health physical facility includes; hospitals, clinics and pharmacies both private and public where the students can access SRH services.

Good sexual and reproductive health: When one is operating at the optimum mentally, physically and socially in matters relating to the reproductive system. It includes the ability to freely choose who to have sex with and how to avoid sexually transmitted infections or unintended pregnancy.

Policy: Rules and guidelines formulated or adopted by a country or a university that provide direction on its desired goal

Policy frameworks: Includes policies, guidelines and strategies formulated or adopted by a country or organization providing direction on its desired goal

Serious or regular partner: Someone who is attached and has committed to be in a love relationship with the other and can identify as either girlfriend or boyfriend

Sexual attitudes: These are thoughts, opinions, ideas, beliefs and attitudes about sex and sexuality

Sexual behaviour: The manner in which people experience their sexuality and it includes actions like masturbation, forms of sex, oral sex, number of sexual partners, sexual debut etc.

Sexual and reproductive health: An individual's right to a healthy body, education and services to freely choose who to have sex with and how to avoid sexually transmitted infections or unintended pregnancy.

Sexual debut: The instance in which one starts engaging in sexual intercourse.

Sexual and Reproductive Health concerns: These are problems that cause anxiety and worry and they are occasioned by sexual and reproductive health related issues.

Sexual and Reproductive Health needs: Services and goods that are needed to enhance sexual and reproductive health

Sexual and Reproductive Health priorities: Sexual and reproductive health services and goods presented in the order of importance

Sexual and Reproductive Health services: Actions intended to help people especially young people to acquire knowledge, information and health products aimed at helping them to understand their sexuality and protect them from unintended pregnancy and STIs including HIV/AIDS. SRH services can include SRH knowledge and skills, contraception, and counselling among others.

University based: Located either in the university or within the physical environments of the universities.

Young people: Persons between the age of 18 and 25 years.

Youth friendly services: Sexual and reproductive health services offered to young people by trained health care providers that are affordable, accessible, offer privacy, operate convenient hours and are conveniently located.

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	**:**	Acquired Immunodeficiency Syndrome
AfDB	**:**	African Development Bank
AFIDEP	**:**	The African Institute for Development Policy
APHRC	**:**	Africa Population Health Research Center
CHE	**:**	Commission for Higher Education
CSE	**:**	Comprehensive Sexuality Education
CUE	**:**	Commission for University Education
DD	**:**	Demographic Dividend
FGD	**:**	Focus Group Discussion
FGM	**:**	Female Genital Mutilation
FHI	**:**	Family Health International
FP	**:**	Family Planning
FPCIP	**:**	Family Planning Costed Implementation Plan
HIV	**:**	Human Immuno-Deficiency Virus
ICL	**:**	I Choose Life - Africa
ICPD	**:**	International Conference on Population and Development

ICPD+25	**:**	The 2019 International Conference on Population and Development
JKUAT	**:**	Jomo Kenyatta University of Agriculture and Technology
KIIs	**:**	Key Informant Interviews
KNHCR	**:**	Kenya National Commission on Human Rights
KU	**:**	Kenyatta University
MMU	**:**	Multi-Media University
MOH	**:**	Ministry of Health
MUT	**:**	Mangosuthu University of Technology
NACOSTI	**:**	National Commission for Science Technology and Innovation
NASCOP	**:**	National AIDS and STI Control Programme
NFPCIP	**:**	National Family Planning Costed Implementation Plan
RH	**:**	Reproductive Health
RHU	**:**	Reproductive Health Uganda
PMA	**:**	Performance Monitoring for Action
SDA	**:**	Seventh Day Adventist
SDGs	**:**	Sustainable Development Goals

SEM	**:**	Social Economic Model
SPSS	**:**	Statistical Package for the Social Sciences
SRH	**:**	Sexual Reproductive Health
UN	**:**	United Nations
UNDP	**:**	United Nations Development Programme
UNESCO	**:**	The United Nations Educational, Scientific and Cultural Organization
UNFPA	**:**	United Nations Population Fund
USAID	**:**	United States Agency for International Development
USIU	**:**	The United States International University
WHO	**:**	World Health Organisation
YFHS	**:**	Youth Friendly Health Services
YFS	**:**	Youth Friendly Services

ABSTRACT

Despite the efforts universities are putting in place to address the sexual and reproductive health (SRH) concerns and needs of their students, the rate at which students are engaging in casual unprotected sex is reportedly high. This has resulted in increased rates of unintended pregnancies and unsafe abortions among the student population. It is against this background that this study sought to assess the determinants of utilization of sexual and reproductive health services among university students, Nairobi City County, Kenya. Universities provide the best avenue for training young people who will form a big part of Kenya's future workforce and therefore, provide an opportunity for enhancing the students' wellbeing by enhancing their utilization of SRH services. The objectives of the study were to: identify the SRH concerns, needs and priorities of young people in universities; examine the association between sexual behaviour, attitudes and university students' (male and female) utilization of SRH services; determine awareness of SRH policy frameworks that impact on the provision and utilization of SRH services among university students (male and female); assess the relationship between SRH policy frameworks and utilization of SRH services in universities in Kenya; and identify strategies that will lead to increased awareness and implementation of SRH related policies and utilization of SRH services. The Social Economic Model (SEM) guided the study in understanding the problem while the Andersen and Newman Framework of Health Services Utilization guided the study in identifying possible solutions to the challenges identified. The targeted population was staff and students studying in universities with main campuses in Nairobi City County. Stratified random sampling was used to select the four public and private universities (Kenyatta University, Multimedia University of Kenya, United States International University - Africa and KCA University) which were part of the study from the six public and five private universities in Nairobi City County. The study was guided by cross-sectional and exploratory research designs. The target population was 192,193 students. Stratified random sampling was used to select the three hundred and seventy (370) students who completed the study questionnaires. Sixteen key informants were purposefully selected from staff and students to participate in-depth interviews while four focus group discussions (FGDs) of either gender of between 8 - 12 students in each FGD participated in the study. The tools for the study were questionnaires, key informant interview and FGD guides. Qualitative data was analysed according to themes while descriptive statistics was used to analyse quantitative data. Qualitative data was presented in narrative and verbatim forms. Reporting for quantitative data was done in both textual and visual formats such as diagrams, percentages, graphs and tables. The study established that university students are most concerned about getting infected with HIV/AIDS followed by getting pregnant or impregnating someone. The study established that what the students need the most is access to condoms, pills and contraceptives for pregnancy prevention and youth friendly services. Moreover, the findings revealed that university students prioritize confidentiality, the cost of SRH services and being attended by friendly healthcare providers in this order. Also, the results established that sexual behaviour determines utilization of SRH services. Further, the study found that there were low levels of awareness among university students of national and university SRH policy frameworks that impact on the provision of SRH services. The findings indicate no or negligible relationship between awareness of national SRH policies and services utilized. Based on the findings, the study made recommendations that included: universities to allocate resources for SRH programs, integrate gender and digitize SRH services and programming to improve service provision and utilization. It is expected that the adoption of the recommendations will lead to improved utilization of SRH services resulting to improved SRH outcomes for the students.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The world now has the largest population comprising of young people than ever before. UNFPA (2014) estimates that there are 1.8 billion young people aged between 10 and 24 years in the world today. The United Nations (2020) estimates that there will be 10 billion people in the world by 2055 from an estimated 7.9 billion people in 2020. The biggest growth of the world population, by about 95%, will happen in low- and middle-income countries (AFIDEP, 2018). Such a big population of young people can have diverse implications. Countries will only progress and attain sustainable development if the population of their youth is healthy.

The International Conference on Population and Development (ICPD) Programme of Action recognizes that reproductive rights are part of the existing human rights, and that sexual and reproductive health and rights are central to health, well-being, and development. The ICPD reaffirms the importance of sexual and reproductive health, as a prerequisite for attaining gender equality and women's empowerment (UNFPA, 2014). Since the ICPD 1994 drew attention to the special needs of young people, especially girls, regarding their sexual and reproductive health, many programmes, activities and research studies have been carried out to address their sexual and reproductive health needs.

Sustainable Development Goals (SDGs) set ambitious goals to end poverty, promote well-being, and protect the planet. One of the goals of the SDGs is to guarantee healthy

lives and promote wellbeing for all at all ages with a sub-objective of guaranteeing universal access to sexual and reproductive health-care services, including for family planning and the incorporation of reproductive health into national policy reports and projects by 2030 (WHO, 2017). Similarly, one of the targets of SDG 5, Gender Equality, is to ensure universal access to sexual and reproductive health and rights in accordance with the Programme of Action of the ICPD and the Beijing Platform for Action (UNFPA, 2014). Most recently at the Nairobi Summit on ICPD25, governments including the government of Kenya committed to prioritize young people's SRH needs through the development and implementation of favourable SRH policies and increasing resources to FP (UNFPA, 2019).

Sexual and Reproductive Health issues have continued to draw interest globally. An international congress on adolescent sexual and reproductive health (ASRH) held in Ecuador in 2014 emphasized the importance of considering SRH needs of young people in planning. Those who spoke at the congress acknowledged that young people in Latin America are facing immense SRH challenges compounded by barriers in accessing SRH information and services (Pozo et al., 2014). The congress reiterated that they are worried about the low uptake of contraception by youth. It was further observed that adolescence pregnancies were rampant disrupting schooling, leading to higher incidences of maternal deaths, and causing complications during pregnancy and delivery (Pozo et al., 2014).

In 2010, over 9 million unintended pregnancies were occurring annually in Latin America because of unmet needs for family planning. There were also high rates of

abortion related deaths estimated at 2,000 women annually with about 45% being under 24 years of age. As a reactionary measure and to reduce maternal deaths, the US government sent affordable contraceptives to Latin America leading to reduced teenage deaths linked to pregnancies (Richardson & Birn, 2011).

Universities are home to many young people in the prime of their lives and at the peak of their sexual activity. The period between the ages of 18 and 25 is a defining period because young people are transitioning from adolescence to adulthood. This is a time when most young people transition from restrictions of high schools to individual freedoms in universities and colleges (UNESCO, 2017). The independence found in the universities can result to negative SRH outcomes if not handled with care.

A study by Gómez-Camargo, Ochoa-Diaz, Canchila-Barrios, Ramos-Clason, Salguedo-Madrid and Malambo-García (2014) that investigates the sexual and reproductive health of students in one of the universities in Colombia reveals that most students begin engaging in sexual activity in high school with a significant number of students engaging in sex for the first time while in university. Interestingly, despite the high risks of unplanned pregnancies and HIV infection, generally, the investigated students' awareness of ways HIV/AIDS is transmitted and on contraception was very poor. According to the study, students had experienced teenage pregnancy (12.3 %), physical violence (21.6 %) and sexual violence (4.6 %) with a predominant silence from the victims of sexual abuse (61.8 %) (Gómez-Camargo et al., 2014). Moreover, condoms were used by most students (55%) for family planning and HIV infection prevention. The main gap noted is that adolescents are not well prepared by the time they join

universities; therefore, they encounter challenges brought by the independence of being in university away from immediate parental supervision.

A different study carried out by Small, Kim and Yu (2021) among college students in Sierra Leone highlighted the importance of prioritizing SRH issues. The study found out that among the study participants who were sexually active, about one third (31.5%) had contracted some form of STIs during their studies (Small, Kim & Yu, 2021). Another study by Belay, Kuhlmann and Wall (2020) showed that a whopping 11% of the survey respondents or their partners reported to have gotten pregnant during their studies with about 77% of participants starting sexual intercourse at an age less than or equal to 18 years. Even with such worrying statistics, about 50% of the study respondents had not heard about emergency contraceptives (Belay et al., 2020). The contraceptives mostly mentioned as commonly used by university students in Botswana was the condom (95.6%), followed by oral contraceptive pill (86.7%) (Hoque, Nthsipe and Nthabu, 2013). Overall, Hoque, Nthsipe and Nthabu (2013)'s study found out that students engaged in risky sexual practices and recommended educating the students about diseases that are sexually transmitted, and the benefits of contraception use so as to address the high cases of STIs, unplanned pregnancies, and to encourage adoption of responsible sexual behaviours.

A great focus on the sexual and reproductive health of young people has been put in Africa. It is estimated that Africa has the fastest growing and most youthful population globally with about 45% of the population being under the age of 15 and 20% aged between 15 and 24 years (AfDB, 2012). A big number of young people who will play a

key role in Africa's transformation are in universities. A study by Adinew, Worku and Mengesha (2013) showed that among the surveyed Ethiopian university students, 32.1% reported that they had sexual experiences. Most of those with sexual intercourse history, 53.3% said they were in multiple sexual relationships (Adinew et al., 2013). The behaviour of having multiple sexual partners can predispose the students to increased risks of HIV/AIDS and STI infections and unsafe abortions. Same sex partner relationships reported by 6.5% of sexually active students in Ethiopia predispose students to a great risk given that anal sex experienced by same sex partner relationships increase the risk of HIV and other STIs infection (Dingeta et al., 2012). Furthermore, Adinew et al., (2013) study revealed that among the students who had discussed sexual issues, 65.3% discussed with their friends and relied on peers for advice on various protective mechanisms from diseases and unplanned pregnancies.

As much as availability of health facilities in institutions of learning was regarded as a strategy which could lead to improved utilization of SRH services, Adinew et al. (2013) found that the level of awareness of the student clinic in the university was low at 37.1% while only 24.3% had ever utilized any of the reproductive health services from the university health facility. Lack of confidentiality was repeatedly mentioned in the studies as the reason for the low utilization of SRH services from the facilities.

In South Africa, a study among university students in Mangosuthu University of Technology (MUT), KwaZulu-Natal conducted by Hoqueand Ghuman (2012) established that fifty-nine percent of the students were sexually active while 90% of the sexually active students used contraceptives. The most commonly used contraceptives

were condoms (90.5%). The study revealed that gender was not significantly associated with contraceptive use, but there was a significant association between gender and condom use with the results revealing that males used condoms more than females. A big number (81%) of sexually active students reported to have ever used a contraceptive the last time they had sex. Despite the high condom use, myths and misconceptions associated with contraceptive use prevented many students from using condoms. The myths and misconceptions include a believe that contraceptives would make their partner promiscuous. The study concluded that a large proportion of university students at MUT in South Africa are sexually active and use contraception. MUT has adopted a Policy Framework developed by the higher education institutions in South Africa to address Gender-Based Violence in the Post-School Education and Training System. The policy framework addresses issues to do with rape and sexual violence (MUT, 2020).

In Uganda, a study by Boltena, Khan, Asamoah, and Agardh (2012) among university students in the country found that one out of five students reported unmet sexual health counselling needs while nearly 70% of the students had ever engaged in sexual intercourse. Slightly below half of the respondents reported current contraceptive use, with male condoms (34.5 %) being the most used method (Nsubuga, Sekandi, Sempeera & Makumbi, 2016). These findings are not different from those conducted by UNESCO (2017) among college students in Malawi which revealed that both male and female students are sexually active and that an average of 73% of the females and 96% of the males reported to have had sex. Of concern is that several students (26% females and 14% males) had had sex with more than one person (UNESCO, 2017). A significant population (26%) were not aware of sexual reproductive health services offered in their

universities (UNESCO, 2017). Religion and culture remain key determinants of contraceptive use or non-use as respondents who reported to belong to evangelical or Seventh Day Adventist (SDA) denominations were associated with lower contraceptive use (Nsubuga et al., 2016). In general, 9% of the respondents reported ever being pregnant while a third (33.8 %) were aware of a friend who was pregnant. A significant percent (40%) of the students who had ever been pregnant reported to have desired abortion (Nsubuga et al., 2016). Elsewhere in Malawi, a study by Soko et al. (2012) found that more than 50% of the students were not aware of the existence of their HIV/AIDS policy.

In Kenya, the Country's Youth Development Policy (2019) postulates that health issues are of a great concern to young people and the greatest health concern among the youth is observed in sexual and reproductive health. The Constitution of Kenya (2010) guarantees its citizens the right to health care including reproductive health while vision 2030 prioritizes young people's health and development. The Kenya Reproductive Health policy has provided a framework for the provision of reproductive health services to the last mile. The National Family Planning Costed Implementation Plan, 2017 has provided areas of emphasis as being sustainable family planning (FP) financing, awareness creation and commodity security (FPCIP, 2017).

A study by Mbugua and Karonjo (2018) which sought to identify strategies used by Mt. Kenya University students to avoid getting pregnant and to understand their knowledge of contraception methods revealed that condoms are the most preferred strategy to prevent unplanned pregnancies at 48.5% and 46.4% in prevention of STI and

HIV/AIDS. Abstinence from sexual practices was recognized by 33% of the respondents while 2% reported the likely use of withdrawal method as the most preferred family planning method. 71.6% of those who provided feedback said that they had sufficient know-how about the use of condoms while 9.8% were conversant with injectable contraceptives (Mbugua & Karonjo, 2018). According to Mbugua and Karonjo (2018) it is of extreme importance to seek to understand the knowledge levels of university students in line with their reproductive health as this has a direct relationship to the probability of successful completion of university education without taking semester breaks.

Manoti (2015) found out that university students are increasingly getting concerned about date rapes which are rampant in the university. In general, the findings by Manoti (2015) revealed that university students had inadequate knowledge on SRH. In the Cooperative University of Kenya for example, the university has launched and disseminated the University's HIV/AIDS policy, established the AIDS Control Unit and clinic, introduced the compulsory HIV/AIDS course and created platforms for counselling students on HIV/AIDS and SRH (Cooperative College of Kenya HIV/AIDS Policy, 2008). However, appreciation and utilization of the services remains generally low despite the increased sexual activity among the student population.

Kenyatta University recognizes the importance of institutionalizing SRH programmes in the university. As early as 2004, I Choose Life- Africa, an organization implementing HIV/AIDS and SRH programmes in institutions of higher learning was already training peer educators, encouraging students to be tested for HIV and organizing peer

educations programmes in the institution. Among the notable steps the university has taken is the development of the University's HIV/AIDS policy (Kenyatta University, 2020). This came against a backdrop of reportedly high cases of pregnancies among the students and to curb HIV infection among members of the University community.

A study by Wanjau (2016) among Kenyatta University students revealed that only 44.4% of the student population had made use of SRH services available in the university while over half (55.6%) had not. The University's AIDS Control Unit has played a key role in creating HIV/AIDS and SRH awareness in the university. The unit also develops reproductive health related programmes beneficial to the students. I Choose Life - Africa has successfully worked collaboratively with the university's AIDS Control Unit to implement SRH programmes in the institution. In 2004, the researcher worked for I Choose Life Africa, based in Kenyatta University where he participated in organizing and implementing SRH activities and programmes in the institution including training of peer educators and creating HIV/AIDS in in the institution.

KCA University values its students and its staff and has put in place a counselling unit which is accessible to students. In addition, the university has a clinic which is accessible to students and staff (KCA, 2019). On its part, Multimedia University has organized talks on HIV/AIDS and other SRH related issues because it recognizes that its youthful population is at a risk of HIV/AIDS infection and other SRH challenges. Indeed, pregnancy related issues and alcohol and substance abuse remain the greatest threat to the students' success (WHO, 2023). To address these challenges, the

University has put in place a university clinic accessible to the students and university community as a whole.

United States International University (USIU) is cognisant of the advantages of improving awareness of SRH issues among its students. In 2012, I Choose Life Africa implemented an SRH project in USIU aimed at averting unintended pregnancies among Youth in USIU. Specifically, the intervention sought to provide students with information and skills to prevent STIs including HIV and unintended pregnancy through peer education training (ICL, 2012). The initiative saw the training of 54 peer educators and several contraception meetings held within the institution. In addition, through a partnership with I Choose Life-Africa, universities including Kenyatta University, USIU and Daystar published and aired radio messages on alcohol and substance abuse, unplanned pregnancies and relationships among other topics (ICL, 2012). The USIU-A university's clinic was also empowered to offer essential SRH services to the students. USIU- A recognizes that for it to attain academic excellence, it must address SRH challenges its students are facing and put in place strategies that will lead to enhanced utilization of SRH services.

SRH issues are feminized and deserve to be studied with a gender perspective (Devika, 2013). Structural determinants such as access to education, and gender inequality constitute the social determinants of health which affect the health of female and male students because social norms largely determine the sexual attitudes and behaviours that prevail in a cultural context (Beniamino & Holly, 2018). Social norms play a role in determining the age of sexual debut, marriage, number of sexual partners, decision

making power related to SRH activities and health seeking behaviours in general (Beniamino & Holly, 2018). It is, therefore, important to look at utilization of SRH services from a gender perspective.

In general, university students as a population stand a reportedly higher risk compared to the general population of acquiring STIs and HIV/AIDS. They are also at a higher risk of undertaking unsafe abortions than the general population because of their increased levels of sexual experimentation and indulgence practices that are risky. Universities should for these reasons take steps to put up measures that will lead to improved SRH of the students.

1.2 Statement of the Problem

The importance of sexual and reproductive health investments which universities have put in place cannot be overstated. Most universities have developed SRH related policies and strategies, regularly carry-out out SRH awareness campaigns in their institutions (ICL, 2019) and have established health facilities within the universities. These investments are supposed to result to adoption of healthier behaviours by the students and lead to improved utilization of university based SRH services. Despite these investments, universities have not realized a significant decrease in the number of students (male and female) engaging in risky sexual behaviours (Othieno, Okoth, Peltzer, Pengpid & Malla, 2015). For example, the number of Kenyatta university students engaging in unprotected sex under the influence of alcohol and drugs and those who engage in sex for favours is significantly high (Wanjau, 2016). Negative gender norms, peer pressure, intoxication and monetary gain are reportedly some of the

influencers of students' sexual behaviour and attitudes (Manoti, 2015). These actions and influencers predispose university students to STI and HIV infections, unintended pregnancies, unsafe abortions and can inevitably lead to student discontinuation from university or even death. This study sought to find out why the aforementioned problems are happening yet universities have put in place investments to address the sexual and reproductive health of their students.

1.3 Purpose of the Study

The purpose of the study was to investigate the determinants of utilization of sexual and reproductive health services among male and female students studying in universities in Nairobi City County, Kenya.

1.4 Objectives of the Study

I. To establish the sexual and reproductive health concerns, needs and priorities of university students (male and female).
II. To examine the association between sexual behaviour, attitudes, and university students' (male and female) utilization of SRH services.
III. To determine awareness of SRH policy frameworks that impact on the provision and utilization of SRH services among male and female university students.
IV. To examine the relationship between SRH policy frameworks and utilization of SRH services in universities in Nairobi City County.

V. To identify strategies that will lead to increased awareness and implementation of SRH related policies and utilization of SRH services by university students in Nairobi City County.

1.5 Research Questions

I. What are the sexual and reproductive health concerns, needs and priorities of university students (male and female) in Nairobi City County?

II. What is the association between sexual behaviour, attitudes, and university students' (male and female) utilization of SRH services?

III. What is the level of university students' (male and female) awareness of SRH policy frameworks that impact on the provision and utilization of SRH services?

IV. What is the relationship between SRH policy frameworks and utilization of SRH services in universities in Nairobi City County?

V. What strategies can lead to increased awareness and implementation of SRH related policies and utilization of SRH services?

1.6 Research Hypothesis

The study had one hypothesis that focused on the association between sexual behaviour and utilization of SRH services among university students in Nairobi City County. The hypothesis stated that:

H_{01}: There is no association between sexual behaviour and utilization of contraceptives by university students in Nairobi City County.

1.7 Justification and Significance of the Study

The study is justified in that it focuses on the determinants of utilization of SRH services which touch on the health and wellbeing of young people. Evidence has shown that university students are sexually active, and they hardly utilize SRH services. The study is relevant in that it will contribute to the achievement of SDGs, and specifically SDG 3, Health, and Wellbeing and SDG 5 on Gender equality which puts an emphasis on ensuring universal access to sexual and reproductive health and rights in accordance with the Programme of Action of the ICPD and the Beijing Platform for Action (UNFPA, 2014). Furthermore, the study is in line with Kenya's Vision 2030 which aims to transform Kenya into a newly industrialized, middle-income country providing a high quality of life to all its citizens by 2030, through the use of different strategies including provision of universal health care (GoK, 2018). The study is also in line with the Constitution of Kenya (2010) which aspires to promote gender equality in the full and equal enjoyment of all rights and fundamental freedoms including SRH. The study is justified as it will proposes strategies for addressing harmful social norms affecting utilization of SRH services by men and women.

Moreover, this study is significant in that it will be useful to all universities in Nairobi City County interested in addressing the SRH challenges of their students. It will provide students with information and gender specific strategies for breaking the barriers that prevent them from utilizing SRH services. It will also contribute to the

available literature on gender and SRH and provide important information which the universities in Kenya could use for programming, policy development and implementation at the same time it will contribute to the scarce knowledge on SRH issues among young people in Kenyan universities. The information obtained will provide important information to decision makers and health facility in charge as well as formulating strategies that involve young people in decision making processes and their SRH needs respectively.

1.8 Scope and Limitations of the Study

Nairobi City County was selected for the study because it is the County that hosts most main campuses for universities in Kenya. KU and MMU were selected to represent public universities while USIU-A and KCA-U were selected to represent private universities. The study targeted current male and female students at the selected universities aged between 18 and 25. The study period ranged from June 2018 to August 2023. The actual collection of data took place between February and April, 2021.

As part of the limitations, it was assumed that some students especially those considered religious may shy away from answering questions because of the sensitivity of the topic. To mitigate this, the students were informed that this was an academic study carried out for the purposes of helping students who fell in situations requiring SRH services but could not access and utilize the services because of challenges presented to them. In addition, there were concerns before implementation of the study that restrictions from COVID19 could make it difficult to administer the questionnaire.

Alternative ways, like use of digital platforms were put in place to support the administering of the study tools. However, the restrictions were lifted before the study tools were administered leading to collection of data using physical questionnaires and face to face interviews for the FGDs and Key Informant Interviews. Most importantly, the respondents were assured of their confidentiality and anonymity.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2:0 Introduction

This chapter presents a review of literature related to the determinants of utilization of sexual and reproductive health services among university students in Nairobi City County, Kenya. The presentation of this literature was guided by the five research objectives: identify the SRH concerns, needs and priorities of male and female university students; examine the association between sexual behaviour, attitudes and university students' (male and female) utilization of SRH services; determine awareness of SRH policy frameworks that impact on the provision and utilization of SRH services among university students (male and female); assess the relationship between SRH policy frameworks and utilization of SRH services in universities in Kenya and identify strategies that will lead to increased awareness and implementation of SRH related policies and utilization of SRH services. A theoretical and conceptual framework was presented.

2.1 Sexual and Reproductive Health Concerns, Needs and Priorities of Male and Female University Students

There is a growing concern about Sexual and Reproductive Health (SRH) problems among young people especially in developing countries. International and regional level policy frameworks have reiterated the importance of prioritizing SRH issues. The International Conference on Population and Development that was held in 1994 in Cairo was specific and encouraged prioritization of young people's SRHR needs (UNFPA, 2018). Twenty-five years after the ICPD, the Nairobi Summit on ICPD+25

pointed out that as much as progress has been made in prioritizing the sexual and reproductive health issues of young people there are gaps and inequities in access to SRH services (UNFPA, 2019). The mortality brought about by unintended pregnancy and sexually transmitted diseases is increasing the world over (WHO, 2020) and this must be addressed. For this reason, the need to increase funding and investments targeted at young people's sexual and reproductive health needs is of a priority (UNFPA, 2019).

Universities should take cue and increase financial allocations for SRH needs of their students. The allocation can be used for construction of youth friendly centres, provision of commodities in university-based health facilities and capacity building of human resources for health. The assumption that young people in institutions of higher learning are knowledgeable enough and therefore, do not need sexual and reproductive health services as much as other groups of people, only leaves students in universities vulnerable to SRH challenges. Lack of informative and easy to read materials present a barrier in accessing SRH information. SRH information and programming is rapidly changing and for this reason, requires university students to be updated with recent materials with up to date information. The materials produced by the universities should include sites and locations for accessing and utilizing youth friendly services.

At the global level, universities in the US are grappling with the challenges of SRH. A study by Martins et al. (2020) found out that many students did not have information on availability of SRH supplies in their locations. The study reported that a significant number (15%) of the students surveyed said they had ever experienced unexpected sex.

Another study among the City University students of New York (CUNY) indicated that in 2018 an estimated 4.7% of the students became pregnant or fathered a child (CUNY, 2019). Female students were the most affected with 74% becoming pregnant compared to 26% male students who reportedly fathered children. Overall, the study found out that about 13% of the student population were parents (CUNY, 2019). Worryingly, the CUNY (2019) study posits that a significant percent (6%) of the students in CUNY university reported experiencing partner violence which was reported as an issue of concern by the students.

A study by Gómez-Camargo DE et al. (2014) indicates that young people in universities in Latin America are greatly concerned about their SRH. Mostly, young people are concerned about STDs and HIV infection. Their fears are increased because of the reportedly low education levels on SRH and their indulgence in behaviours which can predispose them to STDs and HIV/AIDS infection including sex, alcohol and drugs.

At a regional level, a study conducted by Yared, Sahile and Mekuria (2017) among Ambo University students in Ethiopia highlighted that the students are mostly concerned about the possibility of being HIV positive. Their fear arises from the low knowledge levels on SRH and peer pressure which makes a majority of the students to engage in hidden instantaneous unprotected sexual intercourse in the campus (Yared, Sahile & Mekuria, 2017). Unwanted pregnancy and unsafe abortion have also been mentioned by Ambo University students as issues of a concern. Further, the study by Yared, Sahile and Mekuria (2017) reported that in terms of SRH problems among girls in Ambo University, 5% had ever obtained unwanted pregnancies while out of those,

2.5% aborted unwanted pregnancies. The lack of finances among university students can make them to procure backstreet unsafe abortion which can have dire consequences. Indeed, a study by UNESCO (2016) highlights that barriers such as lack of money to pay for transport and hospital fees are of a concern to university students. Affordability and the cost for utilizing SRH services can encourage or bar students from utilizing the services.

A different study among technical college students in Malawi revealed that college students are concerned about lack of access to FP education and SRH services as well as harmful cultural practices (UNESCO, 2016). The same study revealed that students in colleges are concerned about their safety and security in general. Lack of security can lead to sexual harassment resulting to rape. Substance abuse, sex for money or benefit, sexual harassment and careless behaviours and exposure to new environment are of a concern to students as they expose the students to increased SRH challenges (Yared, Sahile & Mekuria, 2017).

A study undertaken among Makerere university students by RHU (2016) revealed that students are concerned about lecturers who force students to have sex with them in exchange of marks. This leaves the students vulnerable with no bargaining power for condom use it may lead to unplanned pregnancies. Idleness in the universities mostly brought about by the students' newly found freedom away from parental control can come with costly consequences. The situation can be worsened by university environments where little attention is given to SRH needs and this can contribute to the increased risk of SRH problems. Lack of youth friendly facilities has also been cited by

students as a challenge in utilization of SRH services (RHU, 2016). This is exhibited by perceived lack of confidentiality, poor attitudes by human resources or health and health facilities that are operational only at regular hours.

In Kenya, several studies have documented that confidentially is a key determiner which influences university students to utilize SRH services. A study by Akinyi (2009) found out that young people in universities and colleges have a perception that health facilities lack confidentiality. This perception by university and college students is reinforced because most health care providers are elderly who end up advising their clients based on their beliefs instead of counselling and offering the services sought. A considerable percentage (9%) of students interviewed said they met neighbours/relatives at the health facilities and felt embarrassed (Akinyi, 2009) and this discouraged them from seeking the services.

Elsewhere, Manoti (2015) found that a majority (65.9%) of University of Nairobi undergraduate respondents undertaking Anthropology found SRH services expensive and not easily affordable; hence, a big barrier to their utilization. The challenge of the cost is exasperated because most students in public universities are from humble backgrounds and affordability is high on the list on whether they will seek SRH services. The cost of living, including food, accommodation and shelter which are basic needs has significantly increased overtime and most university students would rather spend their resources on immediate basic needs than on SRH issues. This thinking predisposes young people to serious SRH problems which will be costlier to treat and

contain in the long run. As priority, the students will greatly appreciate affordable services.

Manoti's (2015) study also points out that university students are increasingly getting concerned about rampant date rapes. The rapes mostly happen in halls of residencies by fellow students and in most cases, they go unreported. This behaviour poses serious SRH challenges which result to unplanned pregnancies and STDs infection. Female students are also exposed to practices including sex in exchange for money and marks which can predispose them to SRH challenges. Furthermore, other studies have recommended that intervention programs containing STIs and SRH related issues should begin from secondary school since most of the students begin having sexual intercourse while at secondary school. At the higher levels of education, different programs directed towards HIV/AIDS, STIs and SRH issues particularly focusing on female students should also be launched as a priority (UNESCO, 2016).

Accessibility to SRH services is important. Condom dispensers should be installed and well stocked. This is especially the case because studies have shown that condoms are the most preferred means for HIV/AIDS protection among university students (UNESCO, 2016). In addition, and of concern is that even in instances where universities have put in place measures to address the SRH needs of the students, few students end up being aware of such measures; thus, benefiting from the interventions (UNESCO, 2016).

From the reviewed literature; evidently, there are gaps that this study attempted to fill. There was insufficient information on the gender aspects of the utilization of SRH

services, and it was difficult to extrapolate the specific needs of male and female students. It was important to have such information so that appropriate measures are put in place for each gender. Besides condom use, it was not evidently clear from the literature the other contraceptive methods that the students need and utilize most. Whereas, most studies have given insights on the students concerns, there was little data on the priorities of the students. This study, therefore, attempted to fill these gaps by generating data specific to university students studying in Nairobi City County as there was limited information found on the topic.

2.2 To Examine the Association between Sexual Behaviour, Attitudes and University Students' (Male and Female) Utilization of SRH Services

2.2.1 Sexual Behaviour and Utilization of SRH Services

Research has shown that university students engage in risky sexual behaviours that may lead to sexually transmitted infections and unintended pregnancies. In Australia, a study found that more male students (78%) had engaged in sexual intercourse compared to female (41%) students (Repossi et al., 2004). The study concludes that male students are at a greater risk of engaging in detrimental sexual activities compared to female students. The same study reported that more male than female students respectively (21% and 19%) had sporadic relations, (33% and 24%). Contraception use was also reportedly high with slightly more male than female students (78% vs 72%) respectively having ever used contraception (Repossi et al., 2004).

In China, there are concerns about the sexual health and behaviours of young people (Chi & Winter, 2012). Among university students studied, 12.6% (15.4% of male versus 8.6% of female) were having pre-marital heterosexual sex. The findings indicate that several students engaged in many forms of sex. More female (11.2%) than male students (10.5%) engaged in oral sex. A significant percent of the students, 2.7% (3.4% of males versus 1.7% females) were in same-sex relationships. Masturbation was reported by 46% (70.3% of males versus 10.8% of females) of the students. With increased utilisation of technology and internet, a big percentage of the students 57.4% (86.2% of males versus 15.6% females) viewed pornography using the internet and mobile phones.

A study by Majer et al. (2019) among university students in Croatia showed that the situation was not any different in the country. About 48% of university students were having sex with the age of sexual debut reported at 16-18 years for more than 70% of the university students. The study further alluded to most sexually active students using contraceptives (50-70%) with about 11% of the sexually active students not using any contraceptives. In Spain, a study among university students showed that male than female students had riskier sexual behaviours regarding the number of sexual partners and sexual relations with casual partners (Romero-Estudillo, González-Jiménez, & García-García, 2014). This put the male students at a considerably higher risk of unplanned pregnancies and STI infections.

In Africa, a systematic review of literature found out that male students were 3.36 times more likely to have multiple sexual partners than females. The study indicated that

males were 2.99 times more likely to engage in at least one risky sexual behaviour than females (Lungu et al., 2022). In Uganda, Kaggwa et al. (2022)'s study revealed that over half (53.8%) of the students reported having had sexual intercourse. A study by Devika (2013) indicated that the males engaging in sex were over two times higher than females. Nearly 31% of the males reported that they had debuted sexually at age 16 years or before, whereas only 14.2% of the females stated the same (Devika, 2013).

A study by Mutiso and Mbuya (2021) among university students in Kenya found that a big majority, 68.6% (303 of 442) were sexually active. Comparatively, fewer students, 31.45% (189 out of 442) had never engaged in sex. The study found startling facts that the earliest age of sexual debut was 9 years with more than 80% of the students engaging in sex by age 20 years which points out to the fact discussions about sex are extremely important from an early age. The study revealed that students were engaging in risky behaviours including casual sex, sex while drunk, multiple sexual partnerships, sex without contraceptives and sex with married polygamists (Mutiso & Mbuya, 2021). This study by Mutiso and Mbuya (2021) did not give the gender perspective of sexual behaviour. A related study by Wachira, Mathai and Kathukua (2019) found that 70.8% of University of Nairobi students were sexually active with males (372) being more sexually active compared to females (268) studied. Another study by Adam and Mutungi (2007) revealed that a big number of male students (71%) than female students (47.6%) were having sexual relations. Of concern is that of these students, only 18% of males and 14% of females reported using a condom every time they had sex in the last month.

A different study by Othero, Aduma and Opil (2009) indicated that a whopping 68.5% of the students had ever had sexual intercourse, with males being the majority at 78.2%, while the females were 54.7%. A large majority (77%) of females were in current sexual relationships compared to 66.7% of males.

A study by Othieno et al. (2015) reported that approximately 30% of the University of Nairobi students had multiple sexual partnerships, and one-fifth of the students had engaged in sex after drinking alcohol. Cases of STI infection were also found to be high with 9.71% (males 8.65%; females 11.01%) reportedly getting infected. Those with HIV were 3.04% (males 2.02%; females 4.05%). A huge number of the students (27.4%) did not use condoms while 21% had engaged in sex after drinking within the previous 3 months (Othieno et al., 2015).

The literature analysed points to the direction that more male than female students were in riskier sexual behaviours. The behaviours include: being in multiple sexual relations, engaging in sex from an early age, and not using contraceptives. These behaviours can be attributed to an exploration of masculinity of young people as socialized by their cultures and communities. This means that the sexual behaviour of young people is to a large extent influenced by the society and cultures where they come from. Most cultures tolerate men in multiple sexual partnerships and frown upon women with more than one sexual partner. Further, they discourage young unmarried girls from being in sexual relations.

The main gap noted in the literature review is the limited data on the association between sexual behaviour, gender and utilisation of sexual and reproductive health

services among university students. There was also insufficient literature on the source of contraceptives for young people studying in universities. It is these gaps that this study sought to address.

2.2.2 University Students' Attitudes and Utilization of SRH Services

Sexual attitudes can be defined as beliefs toward sexuality or sexual behaviours. Sexual attitudes are mostly influenced by peers, family and cultural perspectives about sexuality, by sexual education, and by prior sexual experiences (Silva et al., 2021). Traditionally, most cultures have given the men power; hence, they are mostly considered the decision makers in matters related to sexuality. Most African cultures tolerated polygamy and men having multiple sexual relationships. Such norms may exert pressure on some men to have multiple sexual partners as tolerated by their communities (Devika, 2013). Similarly, the same cultures have imparted this believe that girls and women should not engage in pre-marital sex, and that if they do, it should only be with one sexual partner. This may make women to abide by the expectations of their communities or conceal instances where they are engaged in multiple sexual partnerships. This is especially risky because of the complex intersections of gender affect women's health-seeking behaviour and health outcomes (Devika, 2013). Indeed, women having no or little voice over their sexuality can be attributed to high HIV/AIDS cases and teenage pregnancies in Sub-Saharan Africa.

In Croatia, more than 30% of university students had positive attitudes towards the introduction of sex education in secondary schools in the country (Majer et al., (2019). Sex education provides essential information on matters related to sex. In some

countries, individuals argue that sex education will promote immorality if introduced. However, this is a pointer that some societies are still conservative in matters to do with sex; so, they are better not discussed.

A study by Jahanfar and Pashaei (2022) reported that both male and female students who participated in a study had negative attitudes toward risky sexual behaviour. They posited that young people who frequent parties, bars, or movies are more likely to engage in risky sexual behaviour. The study participants posited that being a religious person is an essential predictor of having less risky behaviour. The thought that being religious can be linked with being involved in non-risky sexual behaviour can be attributed to the teachings of most churches that speak against adultery and fornication.

Culture greatly influences attitudes towards sex and utilization of SRH services. In Botswana, there is a belief that people can be infected with HIV because of witchcraft and that only people who have sex with gay or homosexual partners can be infected with HIV. A study by Adam and Mutungi (2007) revealed that a big number (81%) of university students thought that they were at risk for HIV infection. This is because the students had engaged in sex and other practices that could predispose them to HIV/AIDS infection. A study by Thuo and Nyaga (2018) revealed a weak correlation between HIV/AIDS education and students' attitudes towards People Living with HIV (PLHIV). This indicates that our cultures greatly influence our attitudes.

A study by Mayabi (2022) that investigated the attitude of young people towards premarital sex found out that a big percent (57%) of the student respondents were liberal about sex and did not want to make a big deal out of sexual intercourse. 43%

were conservative and believed that it is against the norms of society and the teachings of the church (Mayabi, 2022). The factors that are associated with sex include love, peer pressure, drug abuse and economic factors.

Another study by Soy, Njonge and Omulema (2020) established that both levels of awareness of risky sexual behaviours and students' attitudes have a significant association with the effectiveness of counselling.

The literature review reveals that attitudes are influenced by the students' cultures and their religious affiliation. The main gap identified was lack of gender specific data on the association between attitudes, gender and utilization of sexual and reproductive health services. This is the gap that this study sought to fill.

2.3 To Determine Awareness of SRH Policy Frameworks that Impact on Provision and Utilization of SRH Services among Male and Female University Students

Many male and female youth in higher education all over the globe have no access to any information or training in SRH and have to use try and error in manoeuvring through life (Dapaah et al., 2016). The 1994 ICPD plan of action recommended the integration of SRH in relevant policy documents. It further recognized reproductive health and the empowerment of women and gender equality as pillars of sustainable development (UNFPA, 2014). The ICPD 1994 is largely acknowledged as the first international framework to assure, especially women, of their reproductive health rights (UNFPA, 2017). The gap in the ICPD1994 is that it does not suggest resources that countries ought to put in place to fast-track implementation (Cerullo, 2013). The

Sustainable Development Goals (SDGs) set ambitious targets for development continentally. The SDS have selected SRH indicators including contraceptive prevalence rate (CPR), adolescent birth rate, abortion rate, and availability of school sex education (Fang, Tan & Tolhurst, 2020). It is advantageous to have such indicators because they ensure developmental programs, and resources are set aside to implement the programs. Similarly, the government of Kenya has prioritized SRH issues in various policy frameworks. The government policy documents developed by the government include: the Constitution of Kenya (2010), Sexual Offences Act (2006) and the National Reproductive Health Policy (2007). Unfortunately, several researchers have found out that the several SRH policy related documents developed are lying in cupboards and their findings have not been disseminated, implemented, evaluated, or even resourced. This makes young people including those who are in universities, to be exposed to health risks because they often do not have sufficient knowledge about their SRH and related documents (Motuma, 2012). The main SRH related policies in Kenya are analysed below:

The Constitution of Kenya (2010)

The right to health care is a fundamental human right that is guaranteed in article 43 by the Constitution of Kenya (2010). The constitution specifically identifies the right to reproductive health as a human right that every citizen must have access to. Kenya is therefore obligated to provide quality and accessible reproductive health services to its citizens (KNHCR, 2012). The Constitution of Kenya (2010) posits that the state shall

not discriminate directly or indirectly against any person on any ground, including race, sex, pregnancy, marital status, health status, or culture. As a step towards attaining gender equality, the constitution provides for the principle of two third gender rule in elective and appointive positions. Whereas there have been challenges in the implementation of the two thirds gender rule, the aspirations in the constitution indicate positive steps towards attaining gender equality.

Article 21 of the Constitution of Kenya requires every relevant institution to ensure that the rights are fulfilled. This gives universities a framework to prioritize SRH issues of their students. Despite the public promulgation of the constitution, UNDP (2014) notes that there is limited civic awareness on the constitution where a big percentage of Kenyans are yet to understand the provisions of the constitution. It is expected that every Kenyan, more so, university students should be aware of the Constitution that spells their freedoms and rights.

Whereas the constitution is not specific about the gender related issues in access to SRH services, it speaks about gender equality throughout the document. This study therefore, sought to find-out the level of awareness of the constitution and whether university students are aware of its relevance to SRH. Surprisingly, not many students are aware of the constitution according to the study findings.

The National Reproductive Health Policy (2007)

The aim of the policy is to provide a charter for the implementation of equitable, efficient, and effective delivery of reproductive health in Kenya with an emphasis of

reaching populations with the greatest need (Republic of Kenya, 2007). Young people remain a population with the greatest need of health services. The policy recognizes that young people are not homogeneous but belong to different gender that can have an influence on access to SRH services. It emphasizes the importance of SRH policy frameworks that promote gender equity and equality, empower women and eliminate all forms of gender-based violence and related harmful practices. The policy in one of its objectives advocates for the promotion of gender equity and equality in matters of reproductive health, including access to appropriate services (Republic of Kenya, 2007).

The National Reproductive Health Policy (2007) outlines areas that should be given priority for the attainment of sexual health. The areas include; reducing neonatal and child deaths, reducing HIV/AIDS infection rates and working towards gender equality. Other notable priority areas identified by Kenya's reproductive health policy include; increasing contraception use for sexually active women and improving the sexual and reproductive health of young people (Reproductive of Kenya, 2007). The policy recognizes unequal social relations and harmful practices as hindrances to access of SRH services, especially for girls and women. Such practices must be addressed for equity in access to SRH services by male and female students.

A gap noted in this policy framework is lack of clear tools that will aid the collection of gender disaggregated data. The policy framework proposes a multi-organization and institution approach for the attainment of SRH. Therefore, investigating the level of awareness of this policy framework was important because for universities to prioritize

SRH needs of their students they need to be aware of the existing SRH policy frameworks and the RH policy is one of the key policy frameworks.

National Family Planning Costed Implementation Plan (NFPCIP) 2017

In recognition of the importance of sexual and reproductive health and family planning issues in the development of the country, the government has put in place constitutional, policy and political commitments tailored towards improved access and use of FP services by women and young people. A key policy framework the government has put in place is the family planning costed implementation plan. Development of the national Family Planning Costed Implementation Plan (FPCIP 2017-20) was one of the Government of Kenya commitments in the FP2020. The national FP puts forward national priorities for FP and guides family planning programming at the County level. Besides identifying priorities, it approximates the resources needed for implementation of family planning programmes in the country. The required funding to implement the five-year national FPCIP is thirty billion Kenya shillings (FPCIP, 2017). The six areas the family planning costed implementation plan has identified for prioritization are commodity security, financing, governance, research, service delivery and governance.

It is expected that by implementing the FPCIP, unintended births, unsafe abortions, maternal and child deaths can be avoided and ultimately, it will result in improved quality of life (FPCIP, 2017). The FPCIP envisions that research institutions and universities can support the implementation of the FPCIP by providing technical guidance in its implementation, research and training of partners. In addition, it is expected that partners including universities will offer opportunities for students to have

access to FP services, allocate resources for FP and train health workers in their institutions on service provision.

Whereas most commodities mentioned in the FPCIP (2017) are about women, this policy framework only makes subtle mention about gender related issues in access to FP. In addition, the costing is not gender dis-aggregated to provide an indication on the expenditure that will go towards men verses the expenditure that will go towards female. In addition, FPCIP (2017) does not mention the gender dimensions of the healthcare work force. This is the gap this study sought to fill.

Summary on National Level SRH Policy Frameworks

The national level SRH policies presented above are meant to address the sexual and reproductive health of all Kenyan citizens. However, most young people are not aware of these policies. The policies provide a framework for providing SRH services and are applicable to young people. Some policy frameworks, like the Reproductive Health Policy, 2017 have analysed extensively gender related issues in SRH that if implemented will enhance access to SRH services, especially for girls and women. Young people can use the policies to demand for SRH services in their universities as well as in health facilities. In addition, the universities can apply the policies to make available and fund SRH services provided in their universities. This way, SRH services can be available and accessible wherever a student is in need.

Despite the policies mentioned above being clear about provision of SRH services to young people, there was limited literature found to show the extent to which university

students were aware of the policies. Furthermore, most SRH policy frameworks are weak on issues around gender and access to SRH. This study, therefore, investigated whether university students were aware of the various government policy frameworks and whether they were capitalizing on the policy frameworks to access SRH services.

SRH Related Policies in Universities in Kenya

USIU's Sexual Harassment Policy

USIU has put in place a sexual harassment policy aimed at ensuring that employees, students and the community at large is able to relate in an acceptable way. The policy focuses on the offenders as well as those affected. It recognizes gender related issues in sexual harassment. The policy states that sexual discrimination is the prejudiced treatment against a person on grounds of gender, sexual orientation, or gender identity (USIU, 2016). The policy is aimed at protecting, preventing and managing sexual harassment within the university (USIU, 2016). The policy provides possible behaviours that may fit into the sexual harassment category, reporting mechanisms in case of sexual harassment and possible disciplinary measures that may be taken against perpetrators of sexual harassment.

HIV/AIDS Policy

The most common policies that have been enacted by universities in Kenya are HIV/AIDS policies. This is mainly due to the impact of HIV/AIDS among the youthful population in Kenya. The 1999 declaration of HV/AIDS as a national disaster by the then Kenyan President, necessitated institutions to allocate resources, establish

departments and put in place policies to prevent the spread of HIV/AIDS and promote the adoption of healthier behaviours. The Kenyatta University HIV/AIDS policy framework provides a holistic and comprehensive management of HIV/AIDS as a medical and social challenge at the workplace and in the study environment (Kenyatta University, 2007). The objectives of the policy include promotion of uptake of VCT, dissemination of HIV/AIDS knowledge and promotion of positive behaviour change among the university population. The policy acknowledges that HIV/AIDS can affect male and female students and staff differently. The scope of the policy includes the staff and their spouses, dependents, students and members of surrounding communities of Kenyatta University.

Similarly, the Cooperative University has developed an HIV/AIDS policy (2007) which is critical in implementing initiatives around HIV/AIDS in the university. The enactment of the policy led to the introduction of the HIV/AIDS course in the university and establishment of a fully-fledged HIV/AIDS control unit. Other programs in most universities include the introduction of HIV/AIDS courses, condom distribution, SRH knowledge dissemination during orientation sessions, peer education and provision of opportunities for HIV testing. The policy proposes gender specific actions for male and female students in addressing the epidemic in the universities. Awareness of the policies should be enhanced for students and the entire university communities to know their rights. A study by FHI 360 (2014) indicated that students learnt about SRH services from information shared during the first-year orientation (51%), other students (27%), and publicity (10%). These avenues could be used to raise awareness of SRH policies in universities.

The SRH policy frameworks developed by the universities provide the basis for prioritizing SRH by the universities. Universities are supposed to use the policy frameworks for resourcing SRH programs and services. The available literature is not sufficient on awareness of policy frameworks by the students. The policy frameworks can also be more intentional in projecting the gender specific challenges in access to HIV/AIDS preventive services. Whereas data on the HIV infection rates is important, the policy frameworks can be specific in recognizing the linkages between unequal power relations between men and women and access and utilization of SRH services. The policy frameworks should also provide for a way of collecting and reporting gender disaggregated data. Information about the participation of women and men in the development of the frameworks is also missing from the documents. It should be noted that participation of the right holders in policy development creates ownership of the documents.

It is important for the students to be aware of the frameworks for demanding SRH services. This study intended to investigate and fill the gap on the level of awareness of existing policy frameworks and the extent to which the students were involved in the development of the frameworks. The findings that are presented in chapter four indicated low levels of awareness of the frameworks, inadequate financing and minimal involvement of the students in their development.

2.4. To Assess the Relationship between SRH Policy Frameworks and Utilization of SRH Services in Universities in Kenya

University students exhibit diverse sexual behaviours and attitudes. The most reported sexual behaviours among students is having multiple sexual partners, sex with older

persons, engaging in anal and commercial sex with limited use of condoms and contraception (ICL, 2012; Dingeta et al., 2012). These habits are typical of male and female students in institutions of higher learning. For these reasons, institutions have invested in SRH policy frameworks to promote the SRH of the students.

Sexual and reproductive health frameworks provide the spirit and direction that guides implementation of SRH programmes in countries and institutions. Several SRH frameworks have been put in place with the expectation that if implemented as they are supposed to be, they will lead to improved SRH outcomes of citizenry and the people they are supposed to benefit. Most SRH policies have put gender equality as a prerequisite to the attainment of the desired goals (WHO, 2017). WHO (2017) continues to state that by recognizing and considering the unequal power relationship between men and women and addressing harmful gender norms and limited access to health services by women, a society begins the first steps of formulating favourable SRH policies and improving utilization of SRH services by marginalized populations including women and girls.

At the international front, policy frameworks that prioritize SRH issues have been developed, agreed upon and adopted by countries. The 1994 International Conference on Population and Development brought together 179 countries including Kenya to deliberate on SRH from a rights and developmental angle. The ICPD consented that all couples and individuals, both men and women, should be able to make a decision on the number, spacing and timing of their children, without discrimination and intimidation (UNFPA, 2012). This declaration set in motion one of the most important declaration

that has impacted on SRH policy frameworks in the world and Africa specifically. Most recently, twenty-five years after the ICPD 1994, at the Nairobi Summit on ICPD25, several countries renewed their commitments and pledged to accelerate progress in the attainment of commitments they made at the Cairo conference. The gathering mobilized the political will and financial commitment to fully implement the ICPD 1994 Programme of Action. Notable collective commitments at the Nairobi Summit include: to achieve universal access to sexual and reproductive health and rights, mobilize political support and finances to implement ICPD Plan of Action and to address sexual and gender related violence (Republic of Kenya, 2020). The Nairobi Summit (2019) declared to uphold the human rights of all people, including their right to sexual and reproductive health, to accelerate all efforts in support of gender equality and the empowerment of women and girls, with a particular emphasis on the most vulnerable and disadvantaged among us and to ensure that no one is left behind.

At the ICPD+25, the Kenya Government committed to progressively increase the health sector financing to 15 percent of total budget from the current 6%, as per the Abuja declaration by 2030 and to improve integration of population, environment, health and development activities and initiatives into Medium Term Plans (Republic of Kenya and UNFPA, 2020). UNFPA (2020) posits that despite the political will by governments and the progress that has been made since the ICPD, millions of women and young people still lack access to essential SRH information and services. It is estimated that in developing countries, more than 200 million women who are married don't have access to modern contraceptives. In addition, a big number of women, estimated at more than 300 million are annually infected with sexually transmitted diseases (UNFPA, 2012).

Sustainable Development Goals (SDGs) and specifically SDG 3 on ensuring healthy lives and promotion of wellbeing for all at all ages has influenced global and country level policy frameworks. Goal 3.7 is unambiguous that by 2030, governments across the world should provide and make universal access to SRH services, a reality through the use of different functional strategies (UN, 2020). Kenya has adopted the SDGs and it is expected that implementation of the SDGs will result in improved SRH outcomes of its citizenry.

In Kenya, several policy frameworks that outline the prioritization and utilization of SRH services have been developed. The National Guidelines for Provision of Adolescents and Youth Friendly Services in Kenya, 2016 is aimed at improving the provision of SRH services targeted at young people with a special focus at the marginalized groups (Republic of Kenya, 2016). The guidelines have identified key stakeholders that will support the implementation of the guidelines. Learning institutions and universities in particular have been explicitly identified as key stakeholders that will support implementation of the guidelines. The guidelines have identified four service delivery models to guide their implementation. They include: community based, school based, clinical based and virtual based. Institutions of higher learning including universities and colleges have been identified as key in the implementation of the clinical based model. It is expected that university students will access services and information in health facilities and outreaches including public, private, faith-based and NGO supported health facilities (Republic of Kenya, 2016).

The Constitutions of Kenya (2010) posits that citizens of the country must have access to the highest attainable standard of health, including the right to health care services, and reproductive health care. For this reason, organizations and institutions should make accessible SRH services for their people to realise the full implementation of the constitution. During the promulgation of the constitution, dissemination of the various thematic areas was done widely.

The HIV/AIDS Prevention and Control Act (2006) suggests actions that should to be taken to prevent, manage and control HIV/AIDS infection. The Act provides for the promotion of awareness raising, testing and treatment of HIV/AIDS. In particular, the Act postulates that learning institutions including universities should integrate HIV/AIDS programmes in their school curriculum and enlighten students on the mode of HIV/AIDS transmission and prevention (National Council for Law Reporting, 2006). It further provides that in conjunction with the Ministry of Education, HIV/AIDS should be provided as a common course where possible. The Act further promotes the provision of HIV/AIDS information in health facilities including post-exposure prophylaxis for prevention of HIV transmission (National Council for Law Reporting, 2006). In addition, the Act stipulates that every healthcare institution should facilitate access to healthcare services to persons with HIV without discrimination on the basis of HIV status.

Borrowing from the spirit of the HIV and AIDS Act (2006), universities have gone ahead to develop HIV and AIDS policies which provide guidelines for the provision of HIV/AIDS services in their institutions. The Commission of Higher Education (CHE)

(2004) requires institutions of higher learning to respond to HIV/AIDs. Through the universities' HIV/AIDS policies, universities have affirmed their commitment to providing HIV/AIDS services in their institutions and to the surrounding communities. For example, Kenyatta University's HIV/AIDS policy stipulates that all students living with HIV/AIDS will receive the suitable care, treatment and support within the available university resources (Kenyatta University, 2011).

SRH policy formulation and service utilization will only succeed to the anticipated levels if women centred approaches which view women as active participants in the provision and utilization of health services are considered (WHO, 2017). These approaches acknowledge the unequal power relations between men and women, consider the gender of health service providers, the time health facilities are open and type of commodities available in health facilities. In addition, women centred approaches promote the involvement of women and girls throughout the circle of health provision starting from strategy and policy development, implementation, monitoring and evaluation.

The literature available indicated that when students are aware of the existing policy frameworks, utilization of services is likely to increase. However, given that university students are a unique subset of young people, there was little literature found that out rightly showed the linkages between awareness of SRH policy frameworks and utilization of SRH services by young people. This study therefore, provided information on the linkages between awareness of SRH policy frameworks and the level of utilization of SRH Services by university students.

2.5. To Identify Strategies that could Lead to Increased Awareness and Implementation of SRH Related Policies and Utilization of SRH Services

Increased implementation of SRH policy frameworks and improved utilization of SRH services will be critical in ensuring that the students' SHR needs are provided and addressed. Several strategies have been used to ensure that there is increased awareness of SRH policy frameworks and SRH services provided by universities.

The ICPD+25 emphasized the importance of addressing harmful practices, women participation and promoting gender equality as a strategy towards increased access to contraception. A study by Napit et al. (2020) among young people in Nepal found out that factors that report improved awareness of policies and utilization of SRH services are awareness of adolescent friendly services, confidentiality and lack of fear that one will be seen utilizing the services as well as having a need for the services. A different study among college going students in Ethiopia found that health education and awareness and having SRH clubs in the college were among the factors that could lead to improved utilization of SRH services as well as increased awareness of SRH policies (Tigene, Tibeso and Washo, 2020). Another study among college students in Ethiopia posited factors that could lead to students' utilization of SRH services. They included; having a history of STIs, sexual experience and STIs (Binu et al., 2018).

Other factors that researchers have provided that would lead to increased use of SRH services by university students include; hooding prior discussion or training on SRH, living in the rural area, having knowledge of SRH and the perception levels of being HIV/AIDS infected (Atnafu et al., 2019). In Uganda, a study among university students concluded that the use of mobile technology and mobile apps would lead to improved

utilization of SRH services by the students (Nalwanga et al., 2021). The reason given for this is that almost every student has a mobile phone; therefore, easy to access information that would lead to improved utilization of SRH services.

In Kenya, several studies have proposed strategies for improving awareness of SRH policy frameworks and utilization of SRH services. According to the Kenya Bureau of Statistics (2020) in Kenya, among sexually active never married young women, the unmet contraceptive need is as high as 74% among those aged 15–19 years and 39% among those 20–24 years of age. Therefore, efforts to reduce the unmet need for contraceptives must involve a gender specific analysis. A study among young people in Kenya recommended increased awareness of SRH policy frameworks, that government should support access to youth friendly policies and training on SRH (Godia et al., 2013). A separate study by Mbugua and Karonjo (2018) put the case forward for strengthening of services provided at university health facilities as a strategy towards improved utilization of services by the students. A study by FHI360 (2014) among University of Nairobi students concluded that among the factors that will increase access to SRH services by the students is assuring the students of confidentiality, addressing stigma by increasing awareness to the student fraternity of the SRH challenges and countering negative perception of the users of the health services. In addition, trained service providers will encourage repeat clients as they are less likely to stigmatize the students who are seeking SRH services. Additionally, when services are integrated, the students are likely to access and utilize services that they would not have accessed if the services were not located in the same place. Integrated services encourage utilization for the services that the students would not have gone out of the

way to look for. A study by Rudgers (2020) also concluded that gender and sexuality-related norms can have negative effects on young people's access to and utilisation of SRHR services. The study recommended that trained, healthcare providers should challenge harmful sexual and gender norms in their counselling sessions with young people and to give them positive and hopeful messages.

There was limited data found on the strategies that could be applied to enhance access to SRH services for Nairobi City County. Most studies available were either from a single university or for universities that could be generalized for the entire country. In addition, there was limited literature available on the strategies that could be used for each gender and for improving awareness of SRH related policies. This study provided information on strategies that could be used to enhance awareness of policies as well as generated gender specific data. In addition, as the study focussed at a particular section of the population, the findings could be generalized to all universities in Nairobi City County, both public and private.

2.6 Summary and Gaps in the Literature Review

The literature reviewed showed that SRH issues are of a concern because a majority of young people in universities, especially male students, have multiple sexual partners. The literature review further revealed that many women die due to complications during pregnancy and unsafe abortions every year. International policies and conventions have also reiterated on the importance of prioritizing SRH issues among young people. Whereas the reviewed literature has showed that SRH knowledge of services offered within their universities are considerably high among university students, their practices

in utilizing the services are relatively low and does not match what they know. Further, the literature review shows that there are several SRH related policies at the national but few have been adapted by the universities. Moreover, the literature review identified key barriers that hinder access to youth friendly services including cost and unprofessional health providers. Besides, the literature review indicated that more male than female students are comparatively more likely to engage in riskier sexual behaviours. Further, there is prevalence of negative attitudes towards women engaging in multiple sexual partnerships.

A major gap noted is the inadequate literature available on SRH issues among young women and men in universities in Kenya and information on policies available and implemented in institutions of learning. There was even less literature available on direct linkages between sexual behaviour and practices as well as utilization of SRH services. Whereas there was substantial literature about SRH issues among young people, there was inadequate literature on SRH and university students.

Furthermore, the available literature was one sided as it provided SRH related information from only one party's point of view, either from university students or from health providers. For example, a study by Wanjau (2016) on determinants of students' uptake of reproductive health services targeting high risk sexual behaviour in Kenyatta University, did not seek information from health facilities and university staff with an interest in SRH. A related study by Obonyo (2009) on determinants of utilization of youth friendly reproductive health services among school and college youth was not specific to university students. There were also gaps information on the contribution of

gender roles and social norms in access and utilization of SRH services. Most studies lack linkages between policy and utilization of SRH services which this study investigated. Equally, this study is different in the sense it sought the views of both the students, university staff with SRH related roles and university-based healthcare providers on utilization of SRH services and provided linkages with SRH policies that are in place. It also proposes strategies for improving the utilization of SRH services by the students.

2.7 Theoretical Framework

This study is guided by the Social Ecological Model (SEM) which was developed by Urie Bronfenbrenner in the 1970s and formalized as a theory in the 1980s and Andersen and Newman Framework of Health Services Utilization which was developed in the 1960's and reviewed in the 1990's. The SEM explained the problem while the Andersen and Newman Framework of Health Services Utilization offered possible solutions to the problem.

a.) The Social Ecological Model (SEM)

Due to the connected relationship between an individual, interpersonal, community and their environment in influencing sexual and reproductive health behaviour, the Social Ecological theory was used to underpin the findings of this study. The Social Ecological Model (SEM) was developed by Urie Bronfenbrennerin the 1970s and formalized as a theory in the 1980s. It posits that a person's development is affected by everything in their surrounding environment. The model is useful for identifying behavioural, environmental and organizational factors that can affect health. Sexual and reproductive

behaviour is hugely embedded within specific social, environmental and policy as well as cultural contexts (Price & Hawkins, 2007). For behaviour change to happen, then all these elements should be looked at and their contribution to the problem assessed. It's only by assessing all the dynamics in this problem that we will be able to solve a problem. This study therefore used SEM to identify the needs and priorities of the students because it recognized the interlinked relationship that exists between an individual and their environment.

The Social Ecological framework was applied to organize the key SRH concerns, needs, priorities and sexual behaviours and attitudes of university students. In this case, the framework assessed factors that have an influence of one's sexual and reproductive health behaviour at distinctive dimensions: individual dimension, relationship level, network level and societal dimension. The model tends to the complexities and relationships between financial, social, political, environmental, organisational, psychological, and biological determinants of conduct (Gombachikaet al., 2012). This framework was relevant to this study because young people in universities are hugely influenced to behave the way they do by several factors including; the level of access to SRH services, peers, free time available, knowledge and awareness levels and their economic situation. At each level, there are factors influencing one's ability and willingness to utilize SRH services. The framework also took gender considerations into perspective. At the individual level, there are knowledge, skills, and attitudes that are unique to each gender. Issues related to sexual debut of either gender can also be looked at from the individual perspective. At the organizational level there are policies, rules and organizational culture while at the community level there are values, gender and

social norms and standards on how someone is expected to behave. In terms of SRH, decision making is largely at the hands of men in the society something that creates an imbalance in terms of how to have sex and the contraception to use. Therefore, the comprehensive way in which the frameworks looks at SRH, from individual to environmental necessitated its use.

b.) Andersen and Newman Framework of Health Services Utilization

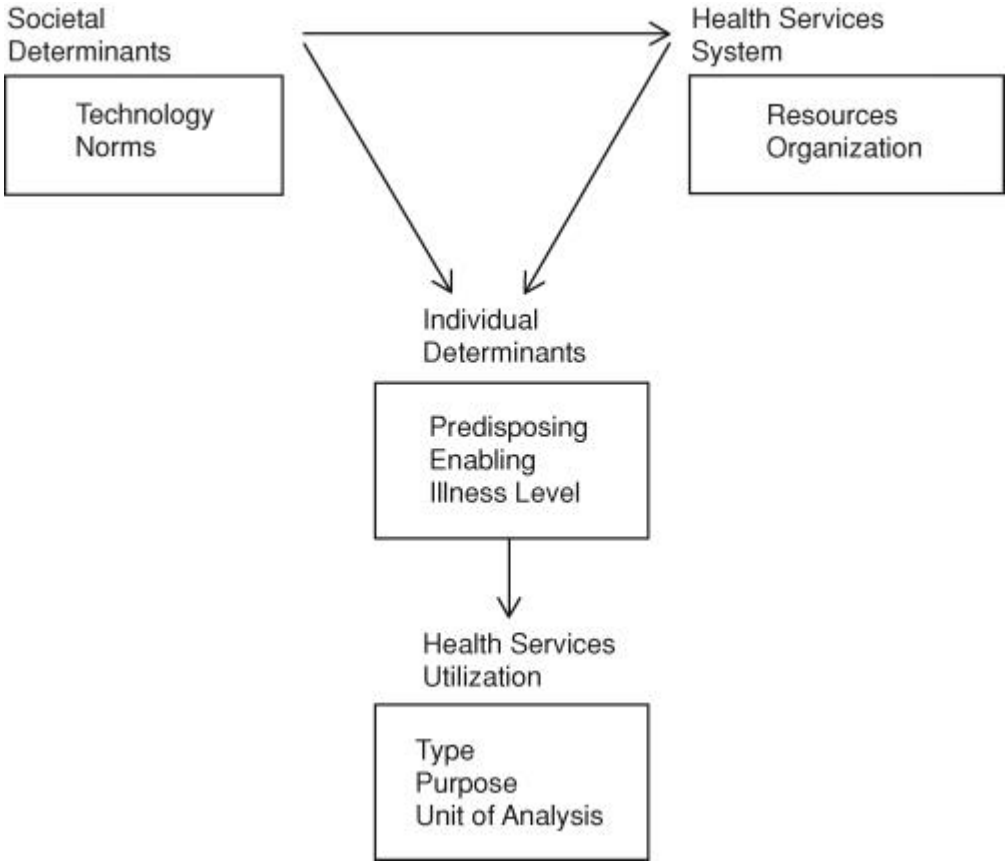

Figure 1.1: **Main Components of Anderson and Newman Theoretical Framework (Andersen and Newman, 2005).**

Andersen's Behavioural Model of Health Care Utilization was developed in late 1960. It postulates that people use health services because of the need to utilize them. Their need for the health services and accessibility to the services affects the utilization of the services (Jahangir et al., 2012). The model provides that healthcare, comprises of a need, demand and supply of the item. Need in health services, is an idea that includes determinants of health, for example, deprivation, housing, diet, education and work. Demand is what those who want to use the services are in need of (Jahangir et al.,

2012). At the point when supply fulfils that need, actual health care is given, which thusly can be estimated through the usage of health care services (Jahangir et al., 2012).

Andersen and Newman Healthcare Utilization Model is tailored at demonstrating the factors that lead to the utilization of health services by different sections of the community. The model insinuates that predisposing factors, enabling factors, and need have an influence on the use of health services. The proponents of this model have implied that among other needs, health care utilization is supply-induced and thus strongly dependent on the structures of the health care system.

The predisposing factors that the model alludes to include; age, gender, sex of the individual, education level, health beliefs and family status (Babitsch et al., 2012). To a large extent, these factors determine where a person prefers to seek health services in general. The model was relevant in this study because young people and university students in general have a preference on where they feel comfortable to utilize youth friendly services. Their sexual behaviours and attitudes predispose them to different risks which might necessitate them to seek services in an area where their confidentiality is assured. They would prefer an area which has privacy and offers youth friendly services. In addition, if they believe that they will be assisted if they seek the services, a majority of the students are likely to utilize the services. The gender, age and attitude of the service provider also matters to young people. Young people do not want to be stigmatized when they seek SRH services. They may have been perceived as promiscuous by the service providers because of their single status.

Enabling environment would include economic, organizational and policy framework factors such as the availability of health insurance policies, cost of the services, structures and distribution of health services facilities and personnel, time to seek the health services and transport costs (Babitsch et al., 2012). This is important especially because young people and university students in general would prefer health facilities that are accessible and those that operate at times which are convenient for them. The cost of the services is also of utmost importance to young people in universities because they have limited resources to spend in issues they consider not as a priority. Whereas SRH issues are extremely important, they may not be considered as a priority. For this reason, young people in universities may not necessarily see the value of paying for the services.

Another dynamic described by Anderson is the need factor. This is associated with the perception that young people in terms of their health have what they consider as important to them (Babitsch et al., 2012). In some cases, a need can arise because a medical practitioner has recommended for certain services. Young people are greatly influenced by peers and this can create a need to utilize SRH services. If they are positively influenced, they are likely to visit a doctor who will recommend steps to take. For peers to have an influence and for doctors to recommend the services, it means that the individual must be aware of the services; hence, the use of the model because awareness was a key element in this study.

Andersen's Behavioural Model of Health Care Utilization considers aspects of gender as a determinant of predisposing, enabling, and need factors of SRH service utilization.

For example, women are predisposed to getting pregnant and comparatively more predisposed to HIV/AIDS infection. The enabling factors like the cost of the services and policies in place are also largely influenced by gender. The SRH needs of either gender are also specific.

2.8 Conceptual framework

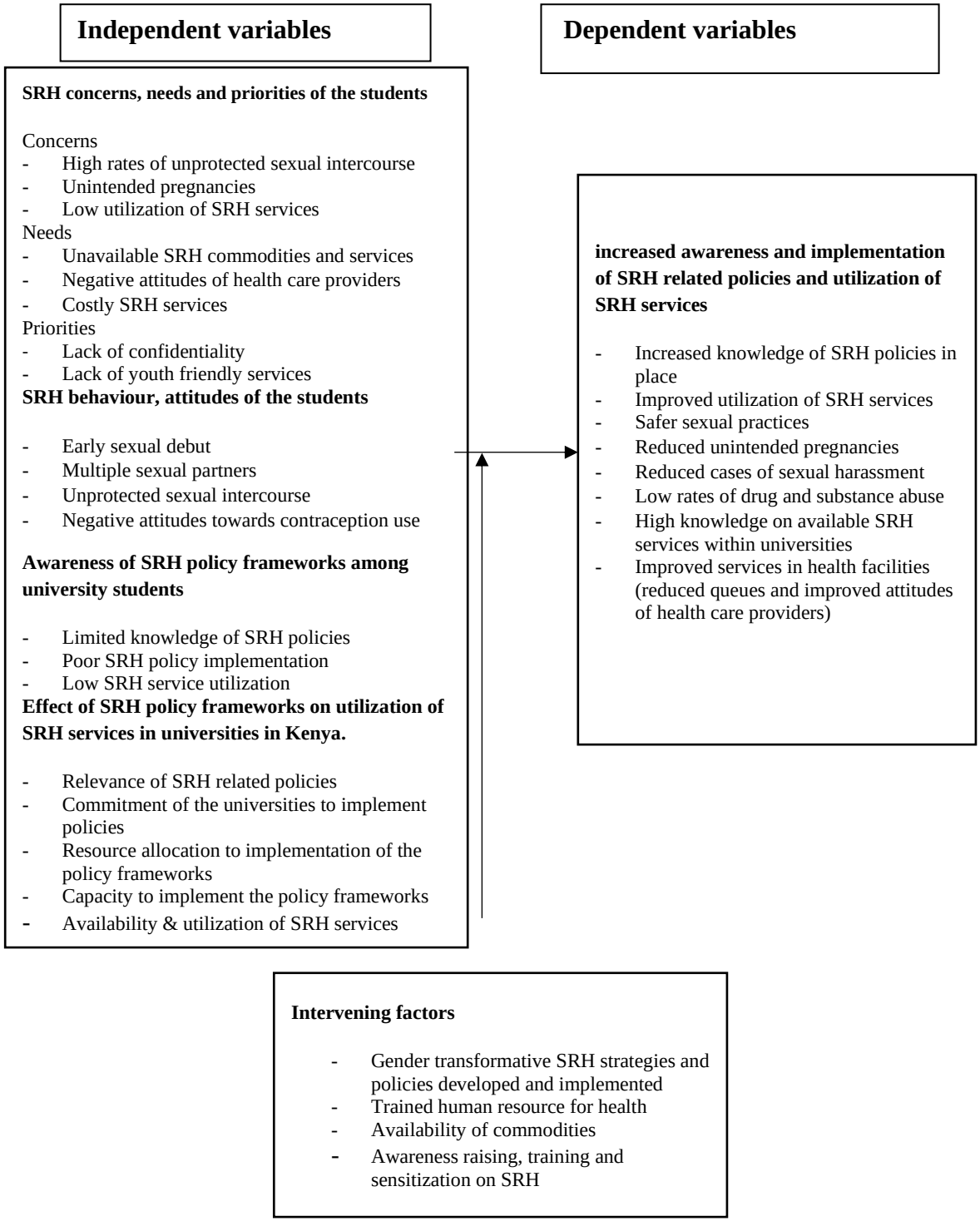

Figure 1.2: **Conceptual Framework: The Determinants of Utilization of Sexual and Reproductive Health Services among University Students, Nairobi City County, Kenya**

A conceptual framework interlinks concepts and provides a comprehensive understanding of a phenomenon (Jabareen, 2009). It contributes to a research report by identifying research variables and clarifying relationships among the variables. The independent variables directly influence the dependent variables. Therefore, from Figure 1.2 above, the dependent variable will change when the independent variables are manipulated. From a review of various literature, several factors determine utilization of SRH services. The factors include; the level of knowledge of policy frameworks, availability of SRH services which might determine the importance universities and university students have given SRH issues and the student's SRH concerns which will determine the type of SRH services the students will seek, sexual behaviour and attitudes including engaging in unprotected sex and fear of STI infection, the belief that oral and anal sex are not real sex and transactional and inter-generational sex. Intervening factors put in place will determine the extent of improvement needed to be put in place to enhance utilization of SRH services by young people in universities. The intervening factors could include; gender transformative SRH strategies and policies, availability of trained human resources for health, availability of youth friendly services and commodities and training as well as sensitization of the students. The long term anticipated outcome is improved sexual and reproductive health of male and female students studying in universities in Nairobi City County which will be manifested through improved utilization of SRH services.

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter provides a description of the study methodology, highlighting important elements including: research design, study site, unit of analysis, target population of the study, sampling procedures and sample size, data collection procedures, data analysis and ethical considerations.

3.1 Research Design

This study used a cross sectional research design complemented by exploratory research design. Cross-sectional study was used to establish the determinants of utilization of sexual and reproductive health services among university students. This involved description of the dependent and independent variables. To achieve the goal of the study, questionnaires were distributed to sampled students to fill. Exploratory research was used to provide further understanding on the issue of study. It provided more clarity to the researcher on significant issues (Henry, 1990). Exploratory research provided new insights to the research problem and important information on the development of the survey questionnaire for further research (Majumdar, 1991). For this reason, focus group discussions and key informant interviews were carried out to identify the needs and views of university students and identification of the available SRH services. The use of the two-research design was important to comprehensively generate sufficient information to respond to all the study objectives. This was especially the case because cross-sectional research design was more useful in the generation of quantitative data

while exploratory research design was more critical in the generation of qualitative data that provided more insights to the problem.

3.2 Site of the Study

The study was conducted in the main campuses of Kenyatta University, United States International University- Africa, KCA-University and Multimedia University in Nairobi City County in Kenya. Nairobi City County was selected because it hosts the largest number of main campuses of most universities in Kenya (CUE, 2019) that could provide the required data for the study as well as have the greatest impact on the biggest number of university students. Nairobi City County, being cosmopolitan and the economic hub for Kenya, presents young people with unique SRH challenges with their interactions with both students and diverse residents of the city. Kenyatta and Multimedia Universities were randomly selected to represent public universities while USIU and KCA University were randomly selected to represent private universities.

3.2.1 Kenyatta University

Kenyatta University is a public university that was established in Kenya as a constituent college of the University of Nairobi. The university took steps to be a renowned public university when it was handed over to the government of Kenya in 1965 by the British regime (Kenyatta University, 2014). It acquired the status of a university in 1985. The main campus of Kenyatta University is located in Kahawa, Kasarani Constituency about 20 km from Kenya's capital city, Nairobi (Kenyatta University, 2014). The University's main campus occupies more than 1,000 acres of land. According to the Kenyatta

University website (2018), Kenyatta University has campuses in Ruiru, Kitui, Parklands, Nyeri, Mombasa, Nakuru, Embu, Nairobi city centre and in Dadaab Campus. Today, the university is among the top in Africa and it offers a wide range of academic programmes. The university has about sixty-two thousand five hundred and twenty four students who are taking various degrees at Doctorate level, Master's Degree, Bachelors Degree and Postgraduates Diploma level (CUE, 2019). Of these, about fifty thousand students are studying in main campus.

The university has been proactive in SRH and HIV/AIDS programming. The AIDS Control Unit coordinates HIV/AIDS programmes within the university and HIV/AIDS is offered as a common course. SRH awareness sessions have also been organized in the institution by faculty and peers through the AIDS Control Unit and wellness centre. In addition, the I Choose Life initiative played a role in the development of the University's HIV/AIDS policy and in improving the capacity of students to respond to SRH challenges. The researcher worked for I Choose Life – Africa and was based at KU in 2004 and has significant understanding about SRH programming in KU which was vital in this study.

3.2.2 The United States International University

USIU is located in Kasarani area in Nairobi City County. The United States International University – Africa was registered in 1969 (USIU, 2018). In 1970, the university signed a Memorandum of Understanding with the Government of Kenya that gave it a mandate to offer education programs. The university started to offer accredited degree programs in 1977. In 2001, USIU merged with the California School of

Professional Psychology (CSPP) forming the Alliant International University. In 2005, USIU received its own accreditation as United States International University. USIU has a total student population of about 7,311 students (CUE, 2019).

With a total of seventeen private chattered universities and five private constituent colleges in Kenya, there are five universities with main campuses in Nairobi: Catholic University of Eastern Africa, Strathmore University, KCA University and Adventist University of Eastern Africa. USIU hosts students from all over the world and from different parts of Kenya. Hence, it provided an excellent representation of private universities in Kenya. USIU offers a wide variety of courses including those under humanities and sciences, sciences and technology, medical and health sciences. USIU has a functioning student health facility and counselling department and in addition has taken steps to address the SRH needs and concerns of its students through a partnership with I Choose Life Africa (ICL, 2012). The university has developed a sexual harassment policy. There was also limited published literature found on SRH among USIU students. This study provided important literature for the stakeholders of the university.

3.2.3 The Multimedia University of Kenya

The Multimedia University of Kenya is a state-owned college that was built up by the Kenya Government in 2008. Initially it was a constituent College of Jomo Kenyatta University of Agriculture and Technology (JKUAT). It became a fully-fledged independent university in 2013. The university is situated in Rongai about 20 Kilometers from Nairobi City Centre. The university offers engineering, business and

communication courses among others. The university has a total student population of 5,512 students (CUE, 2019). The university pays attention to the issues that affect its student population (Multimedia University of Kenya, 2019). The university has a clinic which is frequented by to the staff, students, hotel guests and members of the neighbouring community. The clinic addresses the general health and SRH needs of the student population.

3.2.4 KCA University

KCA University is situated along Thika road about 10 kilometres from the city centre. It has a student population of 7,187 with about 6,000 students in its main campus (CUE, 2019). KCA-U has campuses in Kisumu, Kitengela, and Nairobi Central Business District and a learning centre at Amagoro. KCA University was awarded a charter to offer degrees in 2013. Even before getting the university status, KCA-U was renown in the country as a centre for business courses.

KCA-U believes that the students' welfare is important and must be taken care of. The university has invested in facilities that promote wellness including a counselling unit, a student's clinic and a gym (KCA-U, 2019). The students are encouraged to seek services from the clinic whenever they are feeling unwell.

3.3 Unit of Analysis

The unit of analysis were the students studying in United States International University, Multimedia University of Kenya, KCA University and Kenyatta University

aged between 18 and 25 years old. The age range was selected because most students belong to this age category.

3.4 Target Population

The target population were female and male students studying in universities with main campuses in Nairobi City County. The total study population was approximately 192,193 students: (KU – 62,524 students; MMU – 5,512 students; University of Nairobi – 71.610; Jomo Kenyatta University of Agriculture – 19,649 students, The Co-operative University of Kenya – 3,143 students, USIU - 7,311 students; KCA-U – 7,187 students; Catholic University of Eastern Africa - 6,080 students, Adventist University of Eastern Africa - 650 students; Africa Nazarene University – 3,275; Strathmore University – 5,252 students) (CUE, 2019). They also included staff working in the universities in Nairobi City County.

3.4.1 Inclusion Criteria

Male and female students studying in universities in Nairobi City County aged between 18 and 25 years were included in the study. The students must have commenced their education and were active students and on session at the time of data collection. Also included in the study were staff with responsibilities related to the students' SRH.

3.4.2 Excluding Criteria

Male and female students aged 17 years and below and those aged 26 years and above were excluded from the study. Also, excluded were students who were not currently on session or those who had completed their studies. Moreover, students studying in

universities out of Nairobi City County were excluded from the study. Similarly, staff with no responsibilities related to the students' SRH were excluded from the study.

3.5 Sampling Technique and Sample Size

Nairobi City County was purposively selected for the study because it hosts the main campuses of most private and public universities in Kenya. According to CUE (2014), from a total of thirty-one public universities and eighteen private universities, Nairobi City County hosts six public universities and six private universities with main campuses in the County which were the focus of the study. From the twelve universities with main campuses in Nairobi County, stratified random sampling was used to select the specific universities for the study. Fowler (2009) notes that stratification ensures that certain characteristics of the population are not left out; therefore, it is important if stratified sampling is applied before selecting the final sample. Public and private universities were each grouped into two different strata because service provision and the kind of students attending the universities was unique.

Mugenda and Mugenda (2003) states that a 10% to 30% sample of the population is a representative sample. This necessitated the researcher to select 30% (four universities) of the twelve universities with main campuses in Nairobi City County to be part of this study. Two universities were selected from each of the two strata composed of public and private universities. The stratum with public universities which have their main campuses in Nairobi City County that were considered eligible for the study were Kenyatta University, Nairobi University, Multimedia University, the Cooperative University of Kenya and Jomo Kenyatta University of Agriculture and Technology.

Private universities which have main campuses in Nairobi City County which were considered eligible for the study were KCA-U, Catholic University of Eastern Africa, USIU-A, Adventist University of Eastern Africa, Africa Nazarene University and Strathmore University. After deciding that 30% of the universities comprised a representative sample (Mugenda & Mugenda, 2003), a sampling frame was developed and all the universities in each stratum were listed down in cards and shuffled. Thereafter, the researcher randomly picked two cards with names of universities from each stratum. KU and MMU were picked representing public universities while USIU-A and KCA – U were picked to represent private universities.

The students who completed the survey were randomly selected from the halls of residency and from the classes of study. Undergraduate students at the universities aged 18 to 25 were eligible to participate in the study. Four FGDs, one from each university of study were carried out. The students who participated in the FGDs were randomly selected from the student population in the universities of focus. Key informant interviews were carried out to supplement the information needed. Purposive sampling was used to select five respondents for key informant interviews in each university. However, the research managed to hold only four in-depth interviews in some university respondents because the other KIIs could not be reached and the four KIIs provided the required information. Student leaders, chairpersons of counselling clubs, heads of the AIDS Control Units, hostel wardens and health practitioners working at the health centres located within the universities were the target group for in-depth interviews. The selection of key informant interview participants was based on the SRH related roles and the knowledge levels of students' behaviour of those selected to

participate in the study. The KIIs were contacted in advance to arrange for their availability to participate in the interview.

A formula published by the National Education Association for determining sample size was used to determine the sample size (Krejcie and Morgan, 1970).

$$S = \frac{X^2 NP(1-P)}{d^2 (N-1) + X^2 P(1-P)}$$

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level

(3.841).

N = the population size.

P = the population proportion (assumed to be .50 because it can give the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

$$S = \frac{3.841^2 \times 192{,}193 \times 0.5(1-0.5)}{0.05^2(192{,}193-1) + 3.8412^2\ 0.5(1-0.5)} = 384$$

S= 384 is the desired sample size for the study.

The obtained sample size of 384 was therefore used during the study. A combined 384 questionnaires were therefore distributed to the students proportionate to the number of students in each university and department as follows: 263 in KU, 37 in USIU, 32 in KCA and 52 in MMU. 370 correctly completed questionnaires were returned by the

respondents and consequently analysed. Sixteen Key Informants purposively selected based on their work function and knowledge of SRH issues of male and female university students participated in the study. Four focus group discussions (FGDs), two of either gender, were also conducted. The students who participated in the FGDs were randomly selected from their classes and halls of residency. The FGDs comprised between eight and twelve participants.

3.6 Research Instruments

The study relied on primary and secondary data. Primary data was generated using three instruments of data collection: self-administered questionnaires, key informant interview guide, and focus group discussion guide. Secondary data sources included systematic reviews of high-quality literature on similar work from libraries and internet searches.

Questionnaires

A self-administered questionnaire was distributed by trained research assistants to 384 randomly sampled female and male students in the four universities of study for completion. A self-administered questionnaire was deemed appropriate for this study because the sensitivity of the topic required that the respondents completed the questionnaire with a high assurance of confidentiality. With a self-administered questionnaire, no interviewer was present to inject bias in the way the questions were asked. 370 correctly completed questionnaires were collected, and stored in their hard copy form.

Key Informant Interview Guide

A structured key informant interview guide was developed and used to collect qualitative data. KIIs were used because they provide an opportunity to ask follow-up questions and probe for additional information. The aspect of asking follow-up questions is critical; hence, the need to use them. The interview guide provided guidance to the interviewer in conducting the structured interviews. The interview guide included a set of questions that were designed to be asked exactly as worded, and instructions to the interviewer about how to conduct the rest of the interview.

Sixteen KIIs were conducted representing 4 KIIs from each of the four universities of target. Four KIIs were considered sufficient because they adequately represented different categories of people who interacted with the student population in different ways. Those who were selected to participate in key informant interviews included; student leaders, chairpersons of counselling clubs, heads of the AIDS Control Units and hostel wardens. In addition, nurses working in health centres within the universities were purposefully selected to participate in the key informant interviews because they provide SRH services to the students. Student leaders were targeted because they represent student's concerns and are considered as students' representatives. Chairpersons of counselling clubs and heads of AIDS Control Units were targeted because they have extensive knowledge on student's SRH and are employed by the universities to mainly address the SRH concerns of university students and related issues. Wardens are the custodians of the halls of residencies and the nature of their work allows them to interact with students outside class time. Nurses working in health

facilities within the universities were targeted because students with SRH concerns and needs visit health facilities to seek SRH services.

Focus Group Discussion Guide

A focus group discussion involves gathering people with similar backgrounds or experiences to discuss a specific topic of interest and it mostly entails asking questions about their perceptions, attitudes, beliefs, opinion or ideas (Baral, undated). FGDs were used to obtain in-depth information on concepts, perceptions, and ideas from the study subjects. Their interactive nature ensured openness among the participants and brought out information which could have been hard to get from other data collection methods. Eight to twelve students were invited to participate in one focus group discussion in each university of study. The focus group discussions were separate for male and female students aged between 18 and 25 years. Students were randomly identified from their classes and requested to participate in the FGD discussions. A key consideration in the selection of FGD participants was availability of students across the years of study in each FGD. The course of the discussion was planned earlier and the researcher relied on an outline which ensured that all topics of interest were covered. Notes taken during FGDs, and recordings made ensured that data was stored appropriately.

3.7 Data Collection Procedures

Two research assistants were identified, recruited, trained and prepared to collect data. The training entailed the do's and don'ts in data collection and how they will carry themselves during the exercise. They were taken through the data collection instruments

and a mock data collection exercise organized among themselves to ensure consistency in data collection. In all the interviews conducted, prior arrangement was communicated to the potential respondents. This was done through the research assistants who visited the universities and had discussions with the staff responsible for research in their institutions.

The questionnaires were in most cases distributed after classes when the lecturers were exiting. The researchers randomly selected students who voluntarily completed the questionnaires. For the focus group discussion, researchers selected students in advance and communicated the time for the discussion when the students assembled for the FGDs. Communication for the KIIs was done days before the interviews and appointments made when the actual interviews were conducted. The research assistants provided support in administering the questionnaires, undertaking KIIs and FGDs. The interviews and the administration of the questionnaires were done between January and April, 2021.

3.8. Validity and Reliability of Research Instruments

Validity is often explained as the degree to which an instrument measures what it purports to measure (Kimberlin & Winterstein, 2008). To make sure that there is validity and to get assurance that the research instrument has the capacity to accurately measure what the researcher intends to measure, peer review of the instruments was done by presenting the study proposal to the department's faculty. Consultations were also done with experts in the area of study.

Reliability means that the scores of an instrument are stable and consistent (Creswell, 2005). Pretesting of the data collection instruments was done to ensure reliability of the instruments. To ensure validity of the data collection instruments, they were pre-tested through a pilot study. The pilot study was done in two universities, Zetech University and Jomo Kenyatta University of Agriculture and Technology. The study selected ten students who completed the self-administered questionnaires and two key informants for the in-depth interview who participated in the study for piloting purposes. The collected data was sorted, recorded and correlated in such a way to measure the degree to which the research collection instruments were reliable.

3.9 Data Analysis and Presentation

Data analysis was undertaken in a systematic manner. An analysis plan containing a description of the research question and the various steps that were followed in the process was developed (WHO, 2014). Both qualitative and quantitative data was collected for this study. Qualitative data was analysed according to themes and presented in narrative and verbatim forms. Quantitative data were edited, cleaned, coded, and entered in the Statistical Package for Social Sciences (SPSS). Quantitative data was analysed using descriptive statistics e.g. means, standard deviation and frequencies presented using tables, graphs, pie charts etc. The Chi-square analysis was calculated and used to determine the relationship between variables in the study. The variables were subjected to a 95% level of confidence and 0.05 level of significance.

3:10 Ethical Considerations

Approval of the research proposal was sought form Kenyatta University Graduate School and thereafter, a research permit was sought from NACOSTI to enable the researcher to collect data. To be allowed to collect data from KU, MMU, KCA-U and USIU-A, permission was sought and given by the office of the Deputy Vice Chancellor, Research, Innovation and Outreach, KU, Dean of Students, MMU, Dean of Students and Research, KCA-U and Dean of Research, USIU-A. The research participants were assured of confidentiality and that no harm would come in their way because of their participation in the study. Full consent was also sought before participating in the study and a written consent form was completed and signed by all the study participants. Sufficient information and assurances about taking part in the study were given to allow individuals to understand the implications of participation. Participants were informed of their rights to withdraw from the study at any stage if they wished to do so. Privacy and anonymity of the respondents was of paramount importance.

CHAPTER FOUR: FINDINGS AND DISCUSSIONS

4.0 Introduction

This chapter presents the study findings and discussions according to the objectives of the study. The focus of the study was the assessment of the determinants of utilization of sexual and reproductive health services among university students, Nairobi City County, Kenya. The chapter presents the quantitative and the qualitative data findings. The objectives of the study guided the presentation of the findings under the following sub-headings: identify the SRH concerns, needs and priorities of male and female university students; examine the association between sexual behaviour, attitudes and university students' (male and female) utilization of SRH services; determine awareness of SRH policy frameworks that impact the provision and utilization of SRH services among university students (male and female); assess the relationship between SRH policy frameworks and utilization of SRH services in universities in Kenya and identify strategies that would lead to increased awareness and implementation of SRH related policies and utilization of SRH services. This section also presented the demographic characteristics of the respondents to enable a better understanding of the study respondents for a better interpretation of the primary data.

4.1 Response Rate

From the 384 questionnaires that were distributed, 370 questionnaires were completed and returned representing a response rate of 95.6% which was adequate. Mugenda (2003) posits that a response rate of 70% and over is excellent. Of the 370 completed

questionnaires, 302 (81.7%) were from public universities while 68 (18.3%) came from private level universities. On average, the percent of students studying in public universities is 83% compared to 17% studying in private universities which shows a representative sample (CUE, 2018). In addition, 16 Key informant interviews and four FGDs of between eight and twelve participants were carried out.

4.2 Demographic Information

The study sought demographic characteristics of the respondents such as gender, age, year of study, residency, religion and marital status. This information was important because demographic characteristics explore the unique characteristics of a population. The data was analysed using cross-tabulation in order to bring out the impact of these attributes on policy, sexual behaviour and attitudes of university students' utilization of sexual and reproductive health services in Nairobi City County in Kenya.

The Social Ecological Model (SEM) and Andersen's Behavioural Model of Health Care Utilization were both used to establish the interactions between socio-demographic characteristics and the sexual and reproductive health of university students. Andersen's Behavioural Model of Health Care Utilization postulates that age, sex, education level, health beliefs and family status can affect utilization of health services (Babitsch et al., 2012); hence, consideration of these factors in the analysis of socio-demographic characteristics. The SEM puts emphasis on the need to consider different stages, namely; individual, interpersonal, organizational, societal and policy enabling factors while analysing elements that affect health and health care utilization. The SEM emphasizes the importance of considering social demographic characteristics of

individuals while analysing factors that influence access and utilization of SRH services. The findings are presented in the tables below.

4.2.1 Gender of the Respondents

Gender of the respondents is an important variable to consider since sexual behaviour and attitudes are unique to each gender. The findings are presented in Table 4.1 below.

Table 4.1: *Gender*

Variable	**Status**	**Frequency**	**Percentage**
Gender	Male	190	51.4%
	Female	180	48.6%

As presented in Table 4.1 above, out of the 370 survey respondents, 190 (51.4%) male compared to 180 (48.6%) female completed the survey. The sample is in line with the ratio of university students provided by Statista (2021) indicating that there are 303,034 (59%) male and 206,439 (41%) female enrolled in universities in the 2019/20 period. USAID (2017) posits that gender and SRH are intertwined and must be examined together to bring about better health outcomes. Gender is particularly important because being male or female is associated with cultural expectations in terms of roles and responsibilities including gender specific sexual obligations. In most African cultures, men are expected to be more aggressive while women are expected to be more passive in pursuit of sex. Data presented in this study is gender desegregated because the researcher sought to bring out the unique experiences, behaviours, attitudes and knowledge levels of university students. For example, this study established that more

male students 54 (35.1%) than female students, 33 (21.5%) were in multiple sexual relationships. This finding is discussed in this study and calls for gender specific SRH interventions and recommendations.

4.2.2 Age Distribution of the Respondents

The age of the students who completed the questionnaire was also sought. Data on age was important as it ensured that only students aged between 18 and 25 years were part of the study. Age was also important in determining trends in SRH that accompany different age groups. In addition, it has been noted that woman who start sexual activity at an early age are more likely to engage in high-risk behaviours, experience unintended pregnancies and are more prone to STI and HIV infections (Gomez et al., 2008). This could be the case for university students who start engaging in sexual activity at a young age. In addition, age can affect decision making. This is in line with the assumption that more mature students are more likely to make better decisions compared to younger students.

Table 4.2: *Age*

Variable	**Status**	**Frequency**	**Percentage**
Age	18 - 20 years	216	58.4%
	21 - 23 years	131	35.4%
	24 - 25 years	23	6.2%

The findings presented in Table 4.2 above show that most students, 216 (58.4%) were aged between 18-20 years, 131 (35.4%) students were aged between 21 to 23 years with

23 (6.2%) students aged 24 and 25 years. This study found that a majority of the male and female students engage in sex for the first time when they are teenagers, that is, 15-19 years long before they join university. The young age (18-20 years) of most study respondents is an indication of the importance of the research as it brings out the students' sexual and reproductive health and proposes solutions to the issues identified.

4.2.3 Year of Study of the Students

The year of study of the students is an important variable as it provides information on the relationship between the year of study, sexual behaviour, awareness of SRH policy frameworks and access to SRH services. In addition, the "gold rush" phenomena where students who have stayed in university longer "prey" on fresh students in first year can have implications on the students' sexual activities. It is also assumed that the students who have stayed in the university longer have more understanding of university SRH policies compared to fresh university students. This can be interpreted to mean that students can capitalize on their higher knowledge levels to seek and access SRH services.

Table 4.3: ***Year of Study***

Variable	**Status**	**Frequency**	**Percentage**
Year of study	Year 1	210	56.8%
	Year 2	49	13.2%
	Year 3	62	16.8%
	Year 4	45	12.2%
	Year 5	2	0.5%
	Year 6	2	0.5%

As presented in Table 4.3 above, a majority, 210 (57.6) of the students who completed the study questionnaires were first years, 49 (13.2%) were second years, 62 (16.8%) were third years, 45 (12.2%) were fourth years and 4 (1%) were fifth and sixth years. The study was conducted when most first-year students had reported to their respective universities providing an explanation as to why most of the respondents are first years. A unique finding in terms of the year of study was in the SRH issues of concern where a majority, 81 (21.9%) of first years are most concerned about getting infected with HIV while a majority of second year, third year and fourth year students are most concerned about getting pregnant or impregnating someone at 16 (32.7%), 26 (41.9%) and 17 (37.8%) respectively. This can be interpreted to mean that first year students are most concerned with issues that can have a life-long effect on their education while students in other years of study (second, third and fourth) are most concerned with issues that can affect their education in the immediate term including completion of their studies.

4.2.4 Residency of the Student Respondents

The residency of the students was investigated to assess the unique experiences of the students who stay within the university halls of residency, students who stay with guardians away from the university and students who stay in hostels out of the universities. The mode of residency of students come with measured freedom that can have implications on their sexual behaviour.

Table 4.4: ***Residency***

Variable	Status	Frequency	Percentage
Residency	In campus	196	53.0%
	Home	102	27.5%
	Hostel out of campus	72	19.5%

As presented in Table 4.4 above, majority of the students surveyed, 196 (53%) stayed in-campus, 102 (27.5%) students operated from home while 72 (19.5%) of the students stayed in the hostels out of campus. Most of the students are government sponsored from different parts of the country providing an explanation as to why most of them are residing within the halls of residency. The study found that universities provided some services, for example accessibility of condoms from the condom dispensers installed in the halls of residency, meaning students who stayed within the halls of residency could utilize them unlike those who stayed out of the universities.

While emphasizing on the significance of residency of university students and their sexual and reproductive health, Gbagbo and Gbagbo (2021) note that some university students in Ghana have turned their hostels into brothels and invite men for paid sexual intercourse. This study established that in general, students residing within the university halls of residency had more SRH concerns compared to those who stayed at home or hostels away from the university in what can be attributed to more freedom that comes with staying in the university hostels without strict and direct parental supervision.

4.3 The Sexual and Reproductive Health Concerns, Needs and Priorities of Male and Female University Students

The study's first objective sought to establish the sexual and reproductive health concerns, needs and priorities of male and female university students. The Social Ecological Model was used to organize the key SRH concerns, needs, priorities and sexual behaviours as well as attitudes of university students. Anderson and Newman Healthcare Utilization model was used to organize information on utilization of SRH services. The analysis assessed university students' concerns, needs and priorities in that order.

4.3.1 Sexual and Reproductive Health Concerns of University Students (Male and Female)

The study sought to identify the sexual and reproductive health issues or concerns that worry the students most in line with the first objective of the study; namely; to establish the sexual and reproductive health concerns, needs and priorities of university students. The findings on SRH issues or concerns that worry the students the most are presented in Figure 4.1 below.

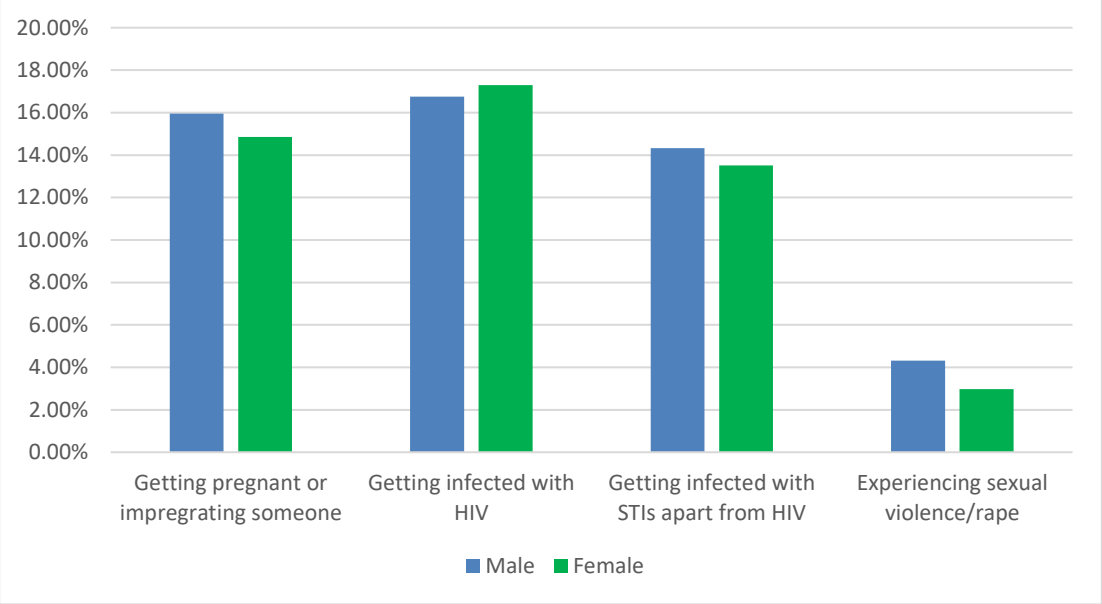

Figure 4.1: **Sexual and Reproductive Health Issue or Concern Worrying the Students the Most**

As presented in Figure 4.1 above, most students, 126 (34%) are most concerned and worried about getting infected with HIV. This was closely followed by 114 (30.8%) who are most concerned about either impregnating or getting pregnant. Getting infected with STIs apart from HIV was ranked third as the issue of concern by 103 (27.8%). Experiencing sexual violence or rape was the least rated as an issue of concern by 27 (6.7%). There were no significant differences on the issues of concern besides having a majority of the male, 16 (4.3%) students surveyed worrying more about sexual violence or rape compared to 11 (2.4%) of the female students.

The findings imply that both male and female students are most concerned about HIV/AIDS infection followed by getting pregnant or impregnating someone. This can be interpreted to mean that students fear HIV/AIDS because it has no cure and is highly stigmatized with lifelong implications. Getting pregnant is the second issue of concern

because it might necessitate taking semester breaks or postponement of studies to nurse the baby besides the fact that it is costly for a student to take care of a child. The reason that made experiencing sexual violence/rape as the least issue of concern is because the vice is hardly reported when it happens and there is stigma associated with the vice (Orth, Wyk & Andipatin, 2020). Male respondents are most concerned about the issue of sexual violence and rape. This could be the case because they can be raped by other men through anal rape making them fear being regarded as weak and stigmatized (Mgolozeli & Duma, 2020).

The findings are supported by FGD participants and key informants who mostly pointed out that the students were very concerned about getting pregnant and getting infected with HIV/AIDS.

For example, Beatrice* a participant in one of the FGDs said:

> *I fear disease the most. Actually, being infected with HIV is what I fear the most as it looks like a death sentence. Pregnancy is bad but better pregnancy than HIV/AIDS. HIV/AIDS is tricky. (FGD participant, 3rd March, 2021).*

The sentiment above from a student FGD participant implies that HIV/AIDS infection is feared by the students because there is no cure, and the disease is highly stigmatized.

Lilian*, another FGD participant said:

> *I fear HIV/AIDS the most because it stays with you. It will be with you forever. You will take ARVs (HIV/AIDS drugs) forever. Better pregnancy by far. (FGD participant, 8th March, 2021)*

The above opinion from one of the FGD participant puts emphasis on the fear HIV/AIDS infection evokes especially because the disease has no cure.

Stanley*, a participant in one of the FGD said:

> *Men are mostly raped by other men and the experience is dehumanizing. I cannot imagine being raped (FGD participant, 11th March, 2021).*

The statement above confirms the findings of the study that men fear being raped by other men because the act is inhuman and humiliating.

A key informant gave the views below that collaborate the study findings:

> *Students are concerned about how to avoid HIV/AIDS and pregnancy in sexuality-active lives (Respondent KII 3, 2nd March, 2021).*

From the preceding sentiments, students want to enjoy sex while at the same time avoid unplanned pregnancies and STIs. The easiest way this can happen is using condoms which provide dual protection.

These findings are supported by Yared, Sahile and Mekuria (2017)'s study among Ambo University students in Ethiopia. The findings indicated that students are mostly concerned about the possibility of being infected with HIV because there is no known cure for the disease. Another study carried out in Uganda among the adult population concurs with these findings. Nannozi, Wobudeya and Gahagan's (2017) study established the existence of strong fear towards a positive HIV test resulting to people being hesitant to be tested for HIV/AIDS. Additionally, WHO (2022) study found that STIs, such as gonorrhoea and syphilis, are issues of concern among young people. Studies have shown that whereas sexual violence and rape among men is less common compared to women, there is real stigma for male victims of rape; hence, the concern over the issue of rape among male students. Mostly sexual violence against men include; anal and oral rape, genital torture, and gang rape (Dolan, 2014).

In line with the Social Ecological Model, at the individual level, use and non-use of contraceptives can influence getting pregnant or STI, and HIV/AIDS infection. At the community level, most African communities promote the culture of males having multiple sexual partners than females which predisposes individuals to increased levels of HIV/AIDS infection. Similarly, information on health is provided at the community and school level and the way it is disseminated can have an effect on what individuals consider as more serious. The study findings, therefore, indicate that the three issues that concern the students the most are getting infected with HIV/AIDS, followed by getting pregnant or impregnating someone and getting infected with STIs apart from HIV in this order.

4.3.2 Student's Residency and Sexual and Reproductive Health Concerns

The study sought to establish the connection between the students' residences and their sexual and reproductive health concerns with the aim of establishing whether there are linkages between where students live while in campus and their SRH concerns. This is particularly important because the residency of the students come with levels of freedom or restrictions that can have an impact on the students' behaviour; thus, the concerns. The findings are presented in Table 4.5 below.

Table 4.5 ***Residency and the Sexual and Reproductive Health Issue or Concern that Worries the Most***

		Which sexual and reproductive health issue or concern that worries you the most				Total
		Getting pregnant or impregnating someone	Getting infected with HIV	Getting infected with STIs apart from HIV	Experiencing sexual violence/rape	
Residency	In-Campus	47 (12.70%)	73 (19.73%)	59 (15.25%)	17 (4.59%)	196 (41.27%)
	Home	40 (10.81%)	30 (8.11%)	29 (7.84%)	3 (0.81%)	102 (27.57%)
	Hostel out of campus	27 (7.30%)	23 (6.22%)	15 (4.05%)	7 (1.89%)	72 (19.46%)
Total		114 (30.81%)	126 (34.08%)	103 (27.14%)	27 (7.29%)	370 (100%)

As shown in Table 4.5 above, the study cross-tabulated the sexual and reproductive health concerns of students with the type of residences. Seventy-three (19.7%) in campus students are most worried about getting infected with HIV, 59 (15.3%) getting infected with STIs other than HIV/AIDS, 47 (12.7%) getting pregnant or impregnating

someone and 19 (4.6%) experiencing sexual violence in that order. Forty (10.8%) students who reside at home are most concerned about getting pregnant or impregnating someone, 30 (8.1%) getting infected with HIV/AIDS, 29 (7.8%) getting infected with STIs other than HIV/AIDS, and 3 (0.8%) experiencing sexual violence. The students who stay in the hostel outside campus are most concerned about getting pregnant or impregnating someone 27 (7.3%), 23 (6.2%) getting infected with HIV/AIDS, 15 (4.1%) getting infected with STIs other than HIV/AIDS, and 7 (1.9%) experiencing sexual violence. Overall, students who stay in campus have more concerns compared to students who reside at home or in the hostels away from campus.

These findings imply that students who stay in the hostels within the universities have more SRH concerns. The concerns by the students who stay in hostels can be attributed to their newfound freedom as well as the desire for financial support to keep pace with the lifestyles of their peers who could appear as having more money. This behaviour can be attributed to the "sponsor" phenomenon, where older economically well to do men have affairs with young girls and support them economically (Chepkemoi, Getui & Nyandiwa, 2023). In addition, peer pressure can make some students do things they couldn't do were they to stay with their parents or elderly people away from hostels. On the specific SRH issue of concern, students who stay within the university halls of residency are most concerned about getting HIV/AIDS than getting pregnant probably because HIV/AIDS has no cure whereas pregnancy can be terminated. Students who stay with parents or relatives are most concerned about getting pregnant probably

because of the stigma that pregnancy comes with especially when one is staying with parents or relatives.

The literature review carried out corroborated with the study's findings that students who stay in hostels go through unique challenges that can increase their SRH concerns. A study carried-out among university students in Ghana revealed that some university students turned their rooms to brothels and in some cases, they solicit for men by hanging out in bars (Gbagbo & Gbagbo, 2021) and thereafter, they invite them to their rooms for paid sex. This is unlike their counterparts who stay with their parents; therefore, they have limited free time. The findings also concur with other researchers who found a positive association between hostel stay and the habit of being in multiple relationships indicating that students who stay in hostels (57.9%) have multiple sexual relationships compared to the students (23.6%) who are not staying in the hostels (Dave et al., 2013). These behaviours can substantially increase the SRH concerns of the students.

A Chi-Square test presented in Table 4.6 was done to establish the relationship between residency and the sexual and reproductive health issue and concern that worries students the most.

Table 4:6: ***Chi-Square Test - Relationship between Residency and SRH Issue and Concern Worrying Students the Most***

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.063[a]	6	.042
Likelihood Ratio	13.880	6	.031
Linear-by-Linear Association	4.458	1	.035
N of Valid Cases	370		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.25.

As presented in Table 4.6 above, there was a significant association (p-value= 0.042) between residency and the sexual and reproductive health issue and concern that worries students the most. This implies an association between residency and SRH concerns of the students.

In line with the Social Ecological Model, at the policy level, the policy actions university students have put in place to safeguard the welfare of the students can affect the level of concerns experienced by the students. Actions like regulating the time of visitation of male and female students in their hostels can help reduce sleepovers of outsiders in their rooms; consequently, reducing their SRH concerns. Similarly, condom provision and disseminating information on HIV/AIDS and pregnancy prevention can also lead to a reduction in the concerns of the students.

4.3.3 Year of Study and Sexual and Reproductive Health Concerns

The study sought to establish the sexual and reproductive health concerns of university students according to the year of study with the view of determining whether the length of stay in the university has any effect on one's concerns. The results are presented in Table 4.7 below.

Table 4.7: ***Year of Study and SRH Issue or Concern that Worries the Students the Most***

Count

		Which sexual and reproductive health issue or concern that worries you the most?				Total
		Getting pregnant or impregnating someone	Getting infected with HIV	Getting infected with STIs apart from HIV	Experiencing sexual violence/rape	
Year of Study	Year 1	55	81	60	14	210
	Year 2	16	15	15	3	49
	Year 3	26	16	14	6	62
	Year 4	17	12	12	4	45
	Year 5	0	1	1	0	2
	Year 6	0	1	1	0	2
Total		114	126	103	27	370

As presented in Table 4.7 above, first year students are most concerned about getting infected with HIV/AIDS 81 (21.9%), getting infected with STIs apart from HIV/AIDS 60 (16.2%), getting pregnant or impregnating someone 55 (14.9%) and lastly experiencing sexual violence 14 (6.7%). Second year, third year and fourth year students are most concerned about getting pregnant or impregnating someone at 16 (32.7%), 26 (41.9%) and 17 (37.8%) respectively. Other SRH concerns for second year,

third year and fourth year students are getting infected with HIV/AIDS and getting infected with STIs apart from HIV/AIDS in that order.

The difference in the issue of concern could be attributed to the duration of study in the university with first years differing significantly with other years of study who have stayed in the university for longer periods of time. Students in older years are most concerned about an issue that can have immediate implications on their schooling and life; hence, their concern about getting pregnant and the possibilities of discontinuing their education. First year students are most concerned with HIV/AIDS infection because it has no cure and has serious long-term implications.

These findings are supported by FGD participants. For example, a first year FGD participant, Moses* asserted:

> *I fear getting infected with HIV the most because it has no cure (First Year male FGD participant MMU, 08 March, 2021).*

The above opinion from one of the FGD participants emphasizes the fear of HIV/AIDS among university students because the disease has no cure.

Collaborating with the findings, a key informant reaffirmed:

> *Most students are afraid of getting HIV than getting pregnant. It differs from year to year of study though. Those who joined us earlier fear pregnancy than HIV infection. First year students fear getting HIV more*

than fourth years. Overall, the fear of contracting HIV appears as the greatest concern of the students. (Respondent KII 11, 10th March, 2021).

The above assertion from a dean of students implies that students generally fear getting infected with HIV/AIDS because the disease has no cure and is highly stigmatized.

A chi-square test presented in Table 4.8 below was done to establish the association between the year of study and the sexual and reproductive health issues of a concern.

Table 4.8: ***Chi-Square Tests on the Association between the Year of Study and the SRH Issues of Concern***

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.284[a]	15	.657
Likelihood Ratio	13.527	15	.562
Linear-by-Linear Association	.514	1	.473
N of Valid Cases	370		

a. 11 cells (45.8%) have expected count less than 5. The minimum expected count is .15.

The chi-square test showed no significant association (p-value 0.657) between the year of study and the sexual and reproductive health issues of concern.

4.3.4 The Sexual and Reproductive Health Needs of University Students

In line with the first study objective, the study investigated the sexual and reproductive health needs of university students and presented results in Figure 4.2 below.

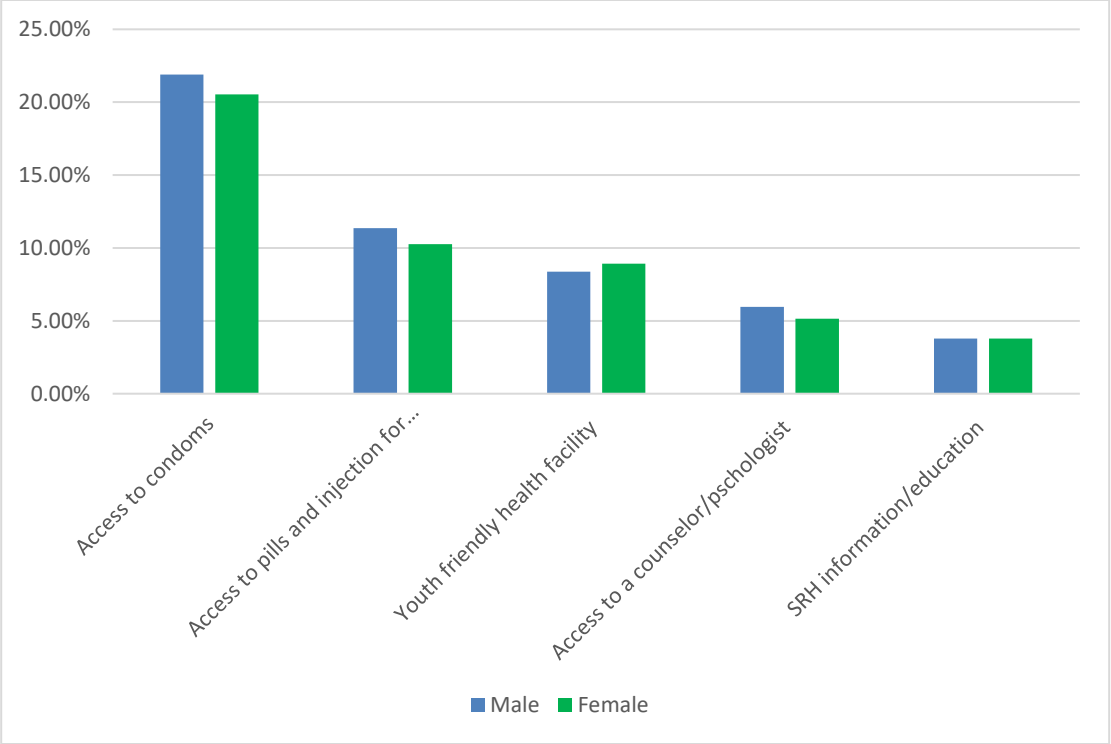

Figure 4.2: **Sexual and Reproductive Health Services Needed Most**

The results presented in Figure 4.2 above showed that 157 (42.4%) of the surveyed students need access to condoms, 80 (21.7%) students need access to pills and injections for pregnancy prevention, 64 (17.3%) students need youth friendly health facilities and 41 (11.1%) students need access to a counsellor/psychologist. Only 28 (7.6%) students reported that they need sexual and reproductive health information. There was no significant difference in the needs of male and female students.

The findings indicate that condoms are the most popular contraceptives among young people in universities in Nairobi City County. Condoms could be popular because they

offer dual protection, have easy access and use as well as little reported side effects. Similarly, pills and injections for pregnancy prevention are popular because once used, they could take a significant period before another doze is taken. Pills are particularly popular because they can be taken after sex to prevent pregnancy. This is particularly the case because young people are known to engage in unplanned causal sex with little concern of the possible consequences. There was no significant gender differences in terms of SRH needs of university students.

These findings are corroborated by FGD participants. For example, Peris*, Grace* and Moses*, who participated in FGDs echoed the statements below respectively:

> *Students need to be provided with condoms but this should come with awareness raising on SRH and how to use them (Female FGD participant KU, 3rd March, 2021).*

> *We want condoms to be provided by the government and by the university for free. We want condoms all over. Use of condoms can help solve our fears. Increasing awareness and counselling is also important (Female FGD participant KCA University, 11th March, 2021).*

> *University students want quality condoms. Condoms burst. The condoms we need must be quality. We also need sex education. Most people do not even know how to use condoms (Male FGD participant MMU, 8th March, 2021).*

The three sentiments from students who participated in three different FGDs emphasize the importance of condoms to the students' sexual lives and the students' need for education on proper condom use and availability as well as access to free affordable condoms.

A literature review carried out revealed similar findings. A USAID (2017) study carried out among Kenyatta university students revealed that students prioritize access to condoms and youth friendly SRH services. Condoms were particularly in demand because they are easy to use and have no side effects. Further, the findings are corroborated by a study carried out among university students in Botswana. It revealed that the most used contraceptive method with the highest demand by most students was the condom (95.6%), followed by oral contraceptive pill (86.7%) (Hoque, Ntsipe & Nthabu, 2013). Another study among university students in Kwa Zulu Natal in South Africa found that among contraceptive users, 90.5% used condoms (Hoque & Ghuman, 2014). Moreover, Hoffman et al. (2017) study showed that condom use and need by sexually active university students in South Africa at last intercourse was 90%.

It should be noted that at the onset of the HIV/AIDS pandemic, the government and civil society organizations spent significant resources sensitizing the public about HIV/AIDS. Condom use was among the strategies in the ABC (Abstain, Be faithful, and Condom use) HIV/AIDS prevention strategy that was promoted and the infrastructure that promotes condom use in universities stays till today. Such infrastructure includes; condom dispensers. Andersen's Behavioural Model of Health

Care Utilization postulates that people use health services because of the need, accessibility and demand (Jahangir et al., 2012). Condoms are readily available and there is a need for them because of the many students engaging in sexual intercourse and multiple sexual partnerships as showed by this study. Similarly, injections and pills for pregnancy prevention are easily accessible and easy to use making them popular among the student community. These findings, therefore, show that the sexual and reproductive health needs of university students are condoms, injections and pills for pregnancy prevention followed by youth friendly services.

4.3.5 The Sexual and Reproductive Health Priorities of University Students

The study sought to find-out the sexual and reproductive health priorities of university students in response to the first study objective. Statistical mean was used in ranking the priorities. The findings are presented in Table 4.9.

Table 4.9: ***The Sexual and Reproductive Health Priorities of University Students***

Statements	Response Level						
	Not important	**Slightly important**	**Important**	**Moderately important**	**Very important**	**Mean**	**Stdv**
Confidentiality of the services offered	9(2.4 %)	8(2.2%)	57(15.4%)	13(3.5%)	283(76.5%)	4.49	0.991
The cost of services	26(7.0 %)	12(3.2%)	87(23.5%)	32(8.6%)	213(57.6%)	4.06	1.254
Friendly health care providers	12(3.2 %)	11(3.0%)	77(20.8%)	21(5.7%)	249(67.3%)	4.31	1.096
A wide array of services offered at the same place	19(5.1 %)	23(6.2%)	109(29.5%)	21(5.7%)	198(53.5%)	3.96	1.242
Location of facility	34(9.2 %)	27(7.3%)	123(33.2%)	45(12.2%)	141(38.1%)	3.63	1.303
The ambience of health facility	11(3.0 %)	19(5.1%)	118(31.9%)	50(13.5%)	172(46.5%)	3.95	1.122
Time taken to receive services	25(6.8 %)	24(6.5%)	93(25.1%)	36(9.7%)	192(51.9%)	3.94	1.280
Being served by health personnel of my gender	48(13. 0%)	36(9.7%)	88(23.8%)	46(12.4%)	152(41.1%)	3.59	1.429
Being attended by young health practitioners	70(18. 9%)	35(9.5%)	74(20.0%)	58(15.7)	133(35.9%)	3.40	1.513

As presented in Table 4.9 above, the priorities, ranked from highest to lowest are: confidentiality, mean = 4.49 (289), friendly healthcare providers, mean=4.31(249), the cost of services, mean= 4.06 (213), a wide array of services offered at the same place,

mean=3.96(198), the ambience of health facility, mean= 3.95 (141), time taken to receive services, mean= 3.94 (192), location of the facility, mean= 3.63(141), being served by health personnel of my gender, mean= 3.59 (152) and being attended by young health practitioners, mean= 3.40 (133).

The findings imply that university students prioritize confidentially, friendly healthcare providers and affordable cost of SRH services as most important. Universities should endeavour to assure students of confidentiality, train healthcare providers to provide youth friendly services and subsidize the cost of SRH services to increase uptake of SRH services by the students.

The various FGDs conducted across the universities where the study was undertaken listed several sexual and reproductive health priorities that reaffirmed the findings. The most mentioned priorities by the FGD participants were confidentiality and friendly healthcare providers of SRH services. The findings can be interpreted to mean that sex among unmarried people is highly stigmatized and done in secret; hence, most of the students prioritizing confidentiality when dealing with an issue related to sex. Similarly, key informant interviews agreed with the observations made by the FGD participants. For example, Peris*, a key informant retorted:

> *We value confidentiality because there are high levels of stigma when accessing or speaking about things related to sex. Confidentiality*

promotes use of SRH services. Service providers should be trained on confidentiality (Female FGD participant, 3rd March, 2022)

The sentiment above by a female FGD participant confirms the students' prioritization of confidentiality as the most important issue.

The findings are supported by Pampati, Liddon, Dittus, Adkins, and Steiner (2019) who established that confidentiality is among the most important aspect in access and utilization of SRH services among young people. The findings also support other researcher's findings that the three factors of on-campus service provision that students said were most important to them were positive attributes in staff (65%), maintenance of confidentiality/ privacy (29%) and professionalism (18%) (FHI, ICL & UON, 2014). Further, the findings are corroborated by USAID (2017) study among Kenyatta University students which revealed that students put priority on privacy, confidentiality, access, and respectful treatment by providers because students do not want others to know their sexual life.

In line with Andersen's Behavioural Model of Health Care Utilization there is need to make SRH services accessible. Ensuring high levels of confidentiality is among the strategies of improving accessibility and utilization of SRH services. This can be done by using pseudo names when providing SRH services, using technology e.g., telephone to offer SRH services and having health facilities frequented by students at strategic locations that assure them of their confidentiality. In addition, training of health care

practitioners will ensure they understand youth friendly service provision and that they maintain confidentiality.

4.3.6 Challenges Faced by University Students while Seeking SRH Services

In line with the first study objective, the researcher investigated challenges faced by university students while seeking SRH services with a view of deriving recommendations for the study. Figure 4.3 below presents the results of the study.

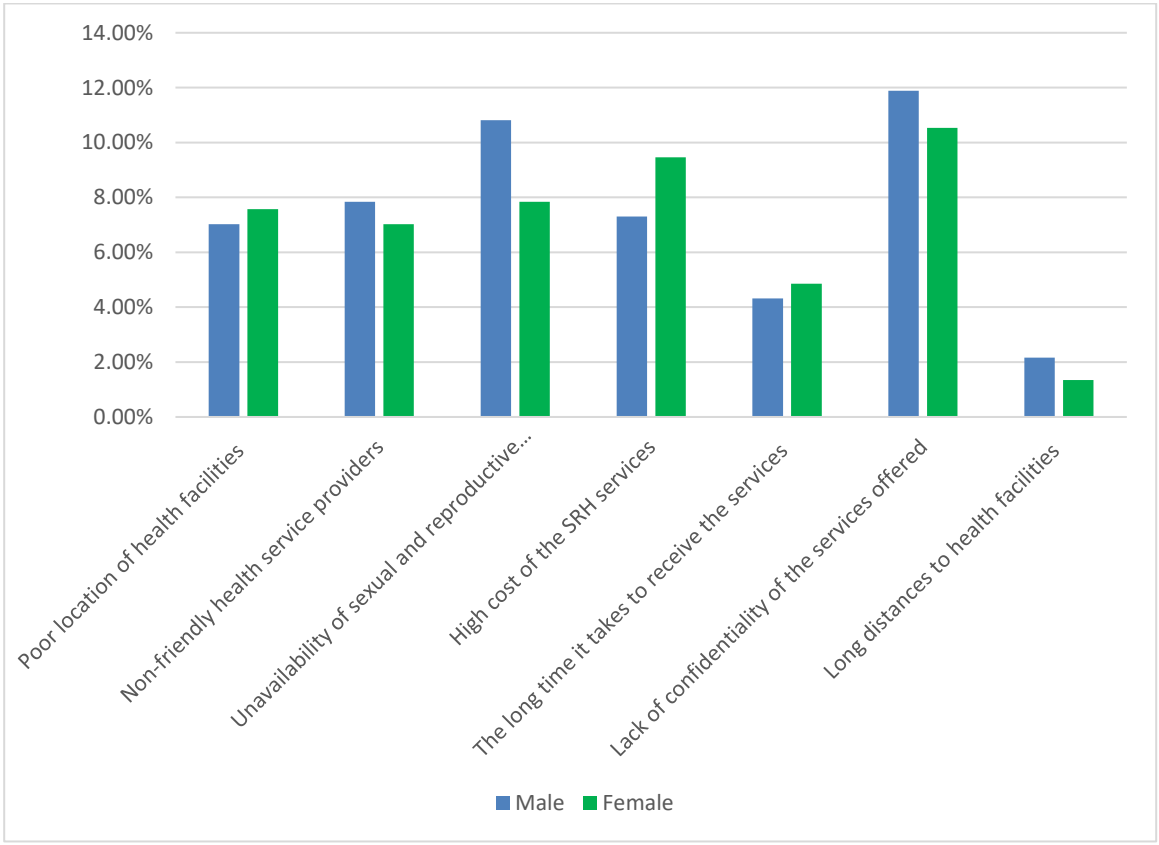

Figure 4.3: **Challenges Faced by University Students While Seeking SRH Services**

Most students surveyed reported lack of confidentiality as the biggest challenge faced, 83 (22.4%). The confidentiality challenge was reported by male, 44 (11.9%) and female, 33 (10.5%) students. This was followed by unavailability of sexual and reproductive health services, 69 (18.7%) reported by 40 (10.81%) male and 60 (7.84%) female students. More male 29 (7.8%) rated non-friendly health care providers as a bigger challenge compared to high cost of SRH services that was rated by 27 (7.3%) male students. Female students rated the high cost of SRH services as a bigger challenge 35 (9.5%) compared to unavailability of sexual and reproductive health services 29 (7.8%). Both genders rated the long time taken to receive services, 34 (9.2%), 16 (4.3%) male and 14 (4.9%) female and long distances to health facilities, 13 (3.5%), 8(2.6%) male and 5 (1.4%) female as the least challenges of concern to them. There was no significant association (p-value= 0.695) between gender and challenges faced by students while seeking SRH services. This can be interpreted to mean that there is no association between gender and challenges faced in accessing SRH services.

The findings imply that both male and female students face almost similar challenges when seeking SRH services with more women than men considering cost to be a higher challenge. This is probably because it is women who shoulder the greatest burden when seeking other forms of contraceptives other than condoms and they most probably seek SRH services more regularly compared to male students. Moreover, the findings suggest that for more students to access the services, then confidentiality should be enhanced or rather the students should be assured of their confidentiality. More male than female students identify that confidentiality is a bigger need probably because SRH

services are feminized whereby they are viewed as services that women and not men should access and utilize. It should be noted that students get discouraged and go elsewhere when they have a perception that SRH services are never available in specific health facilities. In most societies, feminization of SRH services mean that it is the females who bear the most burden of SRH service utilization cost; hence, it is them who are most concerned about the cost of the services. To increase uptake of SRH services while subsidizing the cost, NASCOP can supply universities with free condoms that can be distributed to sexually active students. Moreover, healthcare providers and universities should strive to assure the student population of confidentiality so that the students are confident enough to utilize the services.

One of the ways of solving the confidentiality issues is taking into consideration the gender of the healthcare workforce assigned to provide healthcare services. This is because the students can have a preference on the gender they prefer to offer services to them. Healthcare providers should be trained on gender sensitive SRH service provision ensuring that the location of the facilities give an assurance of confidentiality. Universities and health facilities should also consider subsidizing the cost of the services to improve utilization of services by the students. Moreover, universities regarded as the hubs of innovation should adapt and use technology to link students with SRH service providers to enhance confidentiality, effectiveness in access to services and ultimately uptake of services.

The challenges faced by the students in access to SRH services were emphasized during the FGDs and by the KIIs. For example, Ben* a FGD participant said:

> *Lack of confidentiality is a real challenge. That's why we prefer to seek services away from the universities to increase confidentiality. (FGD participant, 9th March 2021)*

The preceding sentiment shows and emphasizes the value students have put on confidentiality, which must be assured before they can seek SRH services. The sentiment coming from a male student indicates that men prefer confidentiality because they do not want to be seen accessing SRH services due to acquired social roles that put the responsibility of SRH and contraception on women.

Three different key informants noted:

> *Real or perceived lack of privacy and confidentiality among health care workers is a really issue that students worry about (Respondent KII 4, 10 March, 2021)*

> *The students fear seeking services from the universities because of stigmatization and perceived lack of confidentiality. They like going far to seek the services. The services are provided in school but they are not advanced as we would like them to be. Lack of funds are some of the reasons why there are no services (Respondent KII 4, 2nd March, 2021)*

> *Some of them do not trust us so they think we will share their information. There is also an attitude from the staff that the students are too young to use contraceptives (Respondent KII 9, 7th March, 2021)*

The KIIs views emphasize the necessity of confidentiality for the students to seek SRH services.

The findings agree with a study by FHI et al. (2012) which established that the biggest challenge university students face in accessing SRH services are lack of confidentiality and privacy (36%), lack of professionalism (26%), and fear/ stigma/discrimination (21%). Another study by Sidamo, Kerbo, Gidebo, and Wado (2023) found-out that misperception about services, financial constraints, community stigma and social norms were largely to blame for the poor access to SRH services. Furthermore, the findings are in line with a study conducted by Yared, Sahile and Mekuria (2017) that identified perceived lack of confidentiality, poor attitudes by human resources or health and unavailability of SRH services as the core challenges in access to SRH services by students in universities in Malawi. Similarly, Embleton, Braitstein, Ruggiero, Oduor, Wado (2023) study concluded that increasing confidentiality can encourage girls to seek SRH services. The findings are also supported by a study among university of Nairobi students which reported that a majority (65.9%) of University of Nairobi undergraduate respondents undertaking Anthropology indicated that SRH services were not affordable; hence, a big barrier to their utilization (Manoti, 2015).

UNESCO (2012) has indicated that removing the costs associated with contraceptive access will increase availability to SRH services and contraceptives in particular. According to Deroche-Lince et al., (2019), SRH needs are constants throughout women's lives and small annual costs can become large costs when considered cumulatively over time. In most cases, women struggle with additional body-care related expenses than men. For example, women are more likely than men to incur an extra cost for hairdo, purchase of clothes as well as sanitary pads. Incurring more cost on SRH services puts an additional burden on them. FHI and MOH (2012) found out that awareness raising is necessary for young people to access SHH services.

The Social Ecological Model of SRH service utilization emphasizes the need to consider individual, institutional, and environmental factors in access to SRH services. Training of health service providers by government and university focused SRH organizations and subsidizing SRH services to make them affordable to the students is among the institutional strategies that could address the challenges identified. At the community level, the need to sensitize communities against negative social norms that are discriminatory and judgmental against young people hindering them from accessing SRH services will lead to solving the challenges noted.

4.4 To Examine the Association between Sexual Behaviour, Attitude, and University Students' (Male and Female) Utilization of SRH Services

The second objective of the study examined the association between sexual behaviour and university students' utilization of SRH services. The Social Ecological Model was

used to identify the sexual behaviours of university students. Anderson and Newman Healthcare Utilization model was used to organize information on utilization of SRH services. The analysis assessed the association between sexual behaviour and university students' utilization of SRH services

4.4.1 Understanding Whether the Students have Steady Partners

The study investigated whether the students had steady partners in a bid to assess if there is a relationship between partnerships and the number of sexual partners the students had. The students with steady partners are those who identify as being in committed relationships with specific people while those who do not have steady partners are those without a serious or regular partner. The findings are presented in Figure 4.4 below.

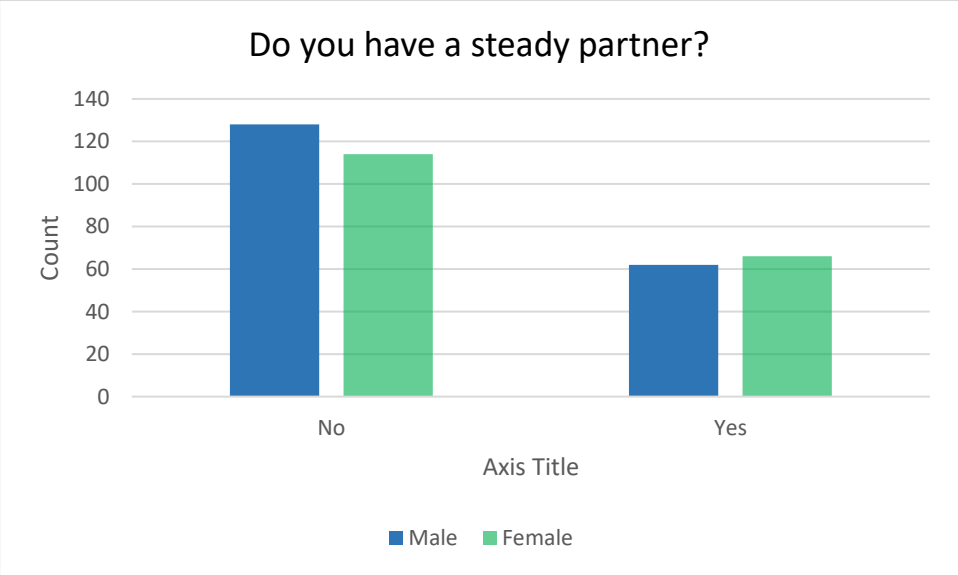

Figure 4.4: **Whether Students Have Steady Partners**

The findings presented in Figure 4.4 above suggest that of the surveyed students only 128 (34.5%) students, distributed as 66 (17.8%) female and 62 (16.7%) male had steady partners. Those who reported as not having steady partners were 242 (65.4%); 128 (34.6%) male and 114 (30.8%) female.

The findings can be interpreted to mean that most students in universities are unattached with no steady partners while a smaller number of students are attached to a partner, they consider serious. In terms of gender, the findings imply that more female students compared to male students have steady partners. Also, culture plays a role in determining the sexual behaviour of a population. Most African cultures are lenient on men with no steady partners but harsher and judgmental on women who do not have steady partners especially as they grow older. The gendered nature of men's social relations encourage them to have multiple sexual relations as a show masculinity. This may be the reason why most male students are not in steady relationships. In addition, compared to male students, most female students prefer to settle down and start a family at an earlier age because of the perceived fear of not getting a husband if they are older and learned. This can be explained from the perspective that women expect to marry men with the same or higher education than them. Such men could be harder to get away from university considering only a paltry 3.5% of Kenyans (Statista, 2019) have attained university education. Moreover, in most African cultures, the social roles of men revolve around being the providers in relationships. This may explain why male students may shy away from being in steady relationships. Therefore, lack of financial resources to support a partner may make male students to shy away from committing to

a relationship in these harsh economic times. At the same time, the significant number of female students in multiple sexual partnerships may be explained from a feminist perspective's desire to have sexual liberation like that of males in societies.

The literature review conducted corroborated with these findings in terms of the level of partnerships of students. A study carried out by Wanjau (2016) agrees with these findings indicating that a smaller percentage of students (39.3%) surveyed in Kenyatta university had partners compared to 60.7% of the students who did not have partners. The findings are also corroborated by Osuafor and Okoli (2021) whose study among students at a university in South Africa found a significant association between being in multiple sexual partnership and being male, which was attributed to the difference in men's view of sexual relationships compared to female's because of socio-cultural gender differences. Similarly, Khumalo et al. (2020) say that socialisation agents such as the family, peers and community play an important role in prescribing acceptable and unacceptable sexual behaviour of young men, which they tend to adhere with. Kelly (2012) argues that the practice of pursuing sexual activity without any expectation of a relationship has become common among college students and can be looked at from a feminist angle that encourages sexual liberalism for women.

The Social Ecological Model recognizes the relationship between an individual and his or her environment. At the community level, cultural expectations of males to have multiple relationships including being in polygamous marriages with the same cultures promoting chastity of unmarried females may explain why more males than females are

in multiple sexual partnerships. Similarly, at an individual relationship level, peer pressure to belong to a community may encourage an individual to behave like the majority. That is for males to be in multiple sexual relationships and for females to be in single sexual partnerships. In conclusion, the findings show that more males than females are in multiple sexual partnerships.

4.4.2 Age of Sexual Debut

In line with the second study objective, sexual debut is an important indication of sexual behaviour of the students and on the appropriate time measures should be put in place to address the students' sexual concerns and needs. Ahanhanzo, Sossa-Jérôme, Sopoh, Tchandana, Azandjèmè and Tchamdja (2018) state that when women begin to engage in sexual intercourse earlier, they stand an increased risk of unintended pregnancy and sexually transmitted infections. Similarly, Osuafor and Okoli (2021) conclude in their study that sexual debut at an early age correlates with an increased number of sexual partners. Understanding age of sexual debut provides an indication on university students' sexual behaviour and the appropriate time at which universities, government facilities, communities and other institutions of learning should provide specific sexual and reproductive health services to students. Students were asked to indicate how old they were when they had sexual intercourse for the first time. Findings are presented in Table 4.10 below.

Table 4.10: ***Age and Sexual Debut***

Count

		How old were you when you had sexual intercourse for the very first time					Total
		Never had sex	Below 10 years	Between 11-14 years	Between 15-19 years	Between 20-24 years	
Gender	Male	64 (17.3%)	16 (4.3%)	15 (4.7%)	74 (20%)	21 (5.9%)	190(51.4%)
	Female	80 (21.6%)	4 (1.1%)	3 (0.8%)	68 (18.4%)	25 (6.8%)	180(48.6%)
Total		144 (38.9%)	20 (5.4%)	18 (5.5%)	142 (38.4%)	46 (12.5%)	370 (100%)

The findings presented in Table 4.10 above show that 142 (38.4%) of the respondents had sex for the first time at the age of 15-19-years, 46 (12.6%) at the age of 20-24 years, 20 (5.4%) below 10 years. Overall, 226 (61.1%) students reported to have had sexual intercourse. A significant number of respondents, 144 (38.9%) reported to have never had sex. The greatest variation in gender and sexual debut was on the students reporting to have had sex below the age of 10 years. More male, 16 (4.3%) compared to female, 4 (1.1%) reported to have had sex aged below 10 years. Similarly, more female students reported to have never had sex (21.6%) compared to male students (17.3%).

The findings can be interpreted to mean that a majority of sexually active students begin engaging in sexual intercourse when they are either in high school or in their first year in the universities, when they are aged between 15 and 19 years. Therefore, this is the time interventions to address their sexual and reproductive health should be put in place. Information and services regarding SRH are most useful for them at the age group of 15-19 years and should be given as a priority. Similarly, with a significant number, 38

(10.9%) of students reporting to have had their sexual debut aged 14 years and below, it can be interpreted to mean, the students were too young to make informed decisions on either to engage in sex or use contraceptives. More boys, 29 (9%) surveyed than girls, 7 (1.9%) had sexual debut at the age of fourteen years and below, indicating that the boy child is not given the care he deserves and protection from sexual abuse. Moreover, with a significant number, 144 (38.9%) of the students reported not to have had sex; this provides a basis for universities to prioritize investing in provision of information and services that might be helpful to the students at the onset of sexual activity. On the same note, the situation where more girls 80(21.6%) than boys 64 (17.3%), reported to have never engaged in sex can be attributed to the process of socialization which encourages girls to remain virgins while encouraging boys and men to explore their masculinity by having multiple sexual partnerships considering most African cultures tolerated polygamy where a man could have more than one wife.

A chi-square test was done to establish the relationship between gender and age of sexual debut and the findings are presented in Table 4.11 below.

Table 4.11: ***Chi-Square Tests Gender and Age of Sexual Debut***

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.322[a]	4	.002
Likelihood Ratio	18.556	4	.001
Linear-by-Linear Association	.440	1	.507
N of Valid Cases	370		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.76.

As presented in Table 4.11 above, the chi-square results (p-value = 0.002) showed that gender and age of sexual debut were significant at less than 0.05 significance level. This means there is a relationship between gender and age of sexual debut.

The findings agree with a study by Mehra (2013) and Adams and Mutungi (2007) who reported related findings. Mehra (2013) found out that 60.3% of university students in Uganda had ever had sex. Adams and Mutungi (2007) reported that an average of 60% (71% of males and 47.6% of female) of the students had ever had sex. Peer pressure and adventure were given as the reasons why more students engaged in sex. The findings were also relatively like FHI and MOH (2012) study among young people in Kenya. Theirs indicated that more boys (60%) that girls (50%) were sexually active by the age of 18 years with more boys (22%) than girls (11%) being more likely to engage in sexual intercourse before 15 years of age (FHI & MOH, 2012). Another study conducted among university students in Botswana concurred with this study findings. The study found that more than half (59%) of the students indicated to have engaged in sexual intercourse (Hoque, Ntsipe, & Nthabu, 2013). The study revealed that more male students (68.5%) had sexual experiences prior to the study, compared to 54.5% of their female counterparts (Hoque, Ntsipe & Nthabu, 2013). Culture provides rules on sexual conduct between sexes which shape knowledge, beliefs, and practices regarding the sexuality of adolescent girls and influence SRH. Culture is dynamic, and changes with time. It is important to focus on changing negative cultural practices, especially those that encourage men to have multiple sexual partnerships.

The findings were different from a study by Mbugua and Karonjo (2018) which pointed out that majority (84.1%) of male students reported to have ever had sex compared to 71.4% of the female students. The higher number of students reported to have engaged in sexual intercourse in the study could be because the study was only done in Mount Kenya University which is located in a town regarded by many as a place for pleasure which exposes students to sex. For instance, a study by Nacada (2010) established cases of high alcohol consumption in Thika town. Moreover, a study by EAC (2010) among university students in Kenya found that a bigger percent (74.1%) of the surveyed students had ever had sexual intercourse while 25.9% had never had sexual intercourse. Another study by Othero, Oduma and Opil (2009) among Maseno University students reported that most students (68.5%) had ever had sex. A bigger percent of men (78.2%) had engaged in sex compared to women (54.7%). The findings differed from a study by the Government of Malawi et al. (2020) that reported more female (75%) than male (61%) students reported to have had sex. The reason for this variation where more males than females are reported to have had sex in Malawi could be due to an increase in transactional sex involving older men and younger women in university (Government of Malawi, UNESCO and European Union, 2020).

The Social Ecological Model considers the complex interplay between individual, relationship, community, and societal factors in determining the age of sexual debut in this case. At the individual level, there are the biological factors that come with age. At the relationship level there is peer pressure while at the community and societal level there is culture and socialization. The findings indicate that most students, both male and females, start engaging in sexual intercourse at the age of between 15-19 years.

4.4.3 Number of Sexual Partners

As presented in Table 4.12 below, the number of sexual partners that sexually active students had over the last 12 months preceding the study was examined with a view to understand their sexual behaviour. Determining the number of sexual partners is important in establishing whether university students have reasons to get concerned over their SRH and it provides information about their sexual behaviour in line with the study objectives.

Table 4.12: ***Number of Sexual Partners in the Last 12 Months***

Count

		How many people have you had sexual intercourse with in the last 12 months						Total
		One	Two	Three	Four	Five	Other	
Gender	Male	31 (20.13%)	17 (11.04%)	13 (8.44%)	11 (7.14%)	9 (5.84%)	4 (2.60%)	85
	Female	36 (23.38%)	11 (7.14%)	12 (7.79%)	7 (4.55%)	2 (1.30%)	1 (0.65%)	69
Total		67 (43.51%)	28 (18.18%)	25 (16.23%)	18 (11.69%)	11 (7.14%)	5 (3.25%)	154

From the surveyed students, about 56.5% of the sexually active students had sexual intercourse with more than one sexual partner compared to 43.5% who had sexual intercourse with one sexual partner over the last one year preceding the study. The numbers can be split as follows; 28 (18.1%) sexually active students had sexual intercourse with two people, 25 (16.2%) had sexual intercourse with three people while 29 (22.1%) students who are sexually active had sexual intercourse with more than 4 partners over the last one year. The findings indicate that cumulatively among the

sexually active students, more male, 54 (70%) than female, 33 (43%) had sex with more than two sexual partners over the last year.

The findings can be interpreted to mean that most of the sexually active students are engaging in casual sex with multiple partners. The findings imply that more sexually active female students than male have had sex with only one sexual partner over the past one year preceding the study. In line with the Social Ecological Model that puts special attention on societal and cultural influence in one's behaviour, multiple sexual partnerships among the male study participants can be attributed to the patriarchal nature of the society that tolerates males having multiple sexual relations while despising females who have multiple sexual relationships. Among most cultures, multiple sexual relationships among the male folk are considered an affirmation of manhood and an exploration of their masculinity (Khumalo, Mabaso, Makusha, and Taylor (2021). In the alternative, most African cultures encourage women to be faithful to their partners which may explain why more women than men have had sex with only one sexual partner over the last year. According to a study by Achen, Atekyereza and Rwabukwali (2021), adolescent girls in most traditional cultures are not culturally permitted to have sexual relationships with more than one man as this is seen as bringing a curse upon them.

In addition, in all FGDs, the participants reaffirmed that most sexually active students have multiple sexual partners. For example, Peter*, one of the FGD participants said:

> *Most students who are sexually active are double-double. She is yours when you are with her but when you leave, she becomes someone else's. In fact, I know a guy I am sharing my girlfriend with. We know the tricks, but we only care about the time we are with the girlfriends (11th March 2021)*

An FGD participant from MMU said:

> *Most sexually active students have multiple sexual partners (11th March, 2021)*

These two sentiments show that students are resigned to the fact that they cannot be in faithful relationships. The sentiments insinuate students have accepted that their partners are likely to be unfaithful. The big number of female students reporting to be in multiple sexual partnerships can be attributed to the changing social norms that encourage equality between men and women; hence, more female students engage in multiple sexual partnerships.

These findings were expounded by key informants who concurred with the finding that students have multiple sexual partners. For example, three key informants said:

> *University students have multiple sexual partners, and their relationships are also very casual (Respondent KII 6, 03 March, 2021)*

> *Most people in the university have multiple sexual partners (Respondent KII 5, 04 March, 2021)*

Most university students have multiple sexual partners with one nightstand being very common (Respondent KII 8, 03 March, 2021)

These assertions from three key informants reaffirm the believe that most students are in multiple partnerships. This implies that the behaviour exhibited by university students implies that they are in multiple sexual partnerships.

A chi-square test presented in Table 4.13 below was done to establish the association between gender and the number of sexual partners.

Table 4.13: ***Chi-Square Tests on Gender and Number of Sexual Partners***

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.258[a]	5	.202
Likelihood Ratio	7.686	5	.174
Linear-by-Linear Association	5.421	1	.020
N of Valid Cases	154		

ha. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 2.24.

As presented in Table 4.13 above, there was no significant association (p-value =0.202) between gender and the number of sexual partners one had over the last one year. This can be interpreted to mean that there is no association between gender and the number of sexual partners.

The findings are supported by other researchers. A study among university students in South Africa found that males are at least seven times more likely than females to

engage in multiple sexual activities (Osuafor & Okoli, 2021). The findings were also corroborated by a study by Pakpour (2020) that revealed that about 40% of university students are in multiple sexual partnerships. A study among university students in South Africa reported that a sizeable proportion of the first-year students (23.5%) were in multiple sexual relationships with more male students having more than one sexual partner compared to female students (Osuafor & Okoli, 2021). The idea of more male than female reporting having multiple sexual relationships can be attributed to the patriarchal nature of the society where most Kenyan cultures entertain the idea of males being in multiple sexual relationships (Mkutu, Gloto & Mkutu, 2020).

The findings are, however, slightly different from a study by Wanjau (2016) that found out a lesser number of sexually active students (38%) had multiple sexual partners. The findings also differ with a study among university students in Malawi. The study found that more female students (26%) compared to male students (14%) were in multiple sexual relations (Government of Malawi et al., 2018). The same study also reported that more than half (51%) of the students were engaging in sex with a single sexual partner (Government of Malawi et al., 2018). Another study among university students in Ghana by Gbagbo and Gbagbo (2021) found out that some female students have converted their rooms into brothels where they invite men to have sex. The changes in trends where females engage in multiple sexual partnerships compared to males can be attributed to changes in culture which have seen a significant increase in girls attending university (Mbano & Nolan, 2017) and an increased desire for female students to want money and other valuables from their older male partners using the 'sponsor phenomenon,' which promotes the habit of older working males dating younger females

(Chepkemoi, Getui & Nyandiwa, 2023). The findings of this study found out that most sexually active students (56.5%) are in multiple sexual partnerships compared to female students (43.5%). At the same time more male 54 (70%) than female, 33 (43%) students are having sexual intercourse with two or more sexual partners.

4.4.4 Use of Contraception during Sexual Intercourse

To determine the students' sexual behaviour in line with the second study objective, this study sought to find out if they use contraceptives when they are having sex with their partners. This question was posed to all the students who reported to have steady regular partner and those with non-regular partners. The researcher did not distinguish the responses from the two categories of students because most of the sexually active students reported being in multiple sexual relationships. Indeed, Wanjau's 2016 study among Kenyatta university students found that whereas only 33% of the students had steady partners, 57% of the students were in multiple sexual partnerships. This was interpreted to mean that the aspect of being faithful is taken for granted by most of the students. It should also be important to note that use of contraceptives refer to whether the student respondent or the sexual partner used a contraceptive method during sexual intercourse. The findings are presented in Table 4.14 below.

Table 4.14: ***Use of Contraceptives When Having Sex with a Partner***

		Do you use contraceptive when you had sex with your partner?				Total
		No	I had never had sex	Sometimes	Yes, All the time	
Gender	Male	34 (9.19%)	62 (16.76%)	40 (10.81%)	54 (14.59%)	190 (51.35%)
	Female	25 (6.74%)	77 (20.81%)	33 (8.92%)	45 (12.16%)	180 (48.65%)
Total		59 (15.93%)	139 (37.57%)	73 (19.73%)	99 (26.75%)	370 (100%)

As presented in Table 4.14 above, 73 (19.7%) students use sometimes with 99 (26.8%) students using contraceptives all the time. A sizeable number of university students, 59 (16%) do not use contraceptives when they have sex with their partners. 139 (37.6%) students reported to have never used contraceptives because they had never had sex before. More male (14.59%) than female (12.16%) students reported to have used contraceptives all the time they had sexual intercourse. At the same time, more male (9.19%) than female (6.74%) students reported not to have used contraceptives during sexual intercourse.

The findings can be interpreted to imply that a significant number of students do not use contraceptives because of myths and misconceptions on contraceptive use. Some students believe that contraceptives, especially hormonal contraceptives have side effects like making women unable to conceive when they are ready to give birth later (Mbachu et al., 2021). Other students believe that sex without condoms is more natural

and fulfilling compared to when one is using a condom. This assertion was supported by a male FGD participant who said:

> *Sex with a condom is like no sex at all (11th March, 2021)*
>
> *I do not like to use condoms because they reduce pleasure (11th March, 2021).*

The above statement from the two male FGD participants imply that students are ready to risk their lives and face the consequences of engaging in unprotected sex because they want to have more sexual pleasure.

For the students who use contraceptives sometimes, the reason could be because in some cases, sex is not planned and happens at a time when one does not have the contraceptives. The government and other organizations' efforts to increase awareness on the dangers of HIV/AIDS and ways to prevent infection can be credited with increased use of contraceptives. In terms of gender, more male, 34 (9.2%) than female, 25 (6.8%) students do not use contraceptives when having sex. This finding can be interpreted to mean that more male students are not using contraceptives because of the perceived reduced consequences upon them when engaging in sex; besides, they will want to increase their sexual pleasure. This is especially the case because men do not become pregnant. The other reason could be that men find it hard to purchase contraceptives because they consider this aspect as a cultural role that should be undertaken by a woman. A study by Kabagenyi et al. (2014) showed that men have a perception that reproductive health was a woman's domain due to gender norms and

traditional family planning communication geared towards women; hence, men make little effort to get involved in pregnancy prevention efforts. The high number of male students who use condoms could be because male condoms are readily available compared to female condoms.

A Chi test was done to establish the relationship between gender and use of contraceptives. The findings are presented in Table 4.15 below.

Table 4.15: ***Chi-Square Test: Relationship Between Gender and Use of Contraceptives***

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.214[a]	3	.239
Likelihood Ratio	4.221	3	.239
Linear-by-Linear Association	.259	1	.611
N of Valid Cases	370		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 28.70.

As presented in Table 4.15 above, there was no significant association (p-value= 0.239) between gender and use of contraceptives with partners. This can be interpreted to mean that there is no association between gender and contraceptive use.

A study by Nthenya (2018) established that a higher percent (63%) of Kisii University students used contraceptives; however, this study did not give the consistency of using contraceptives. Another study by the Government of Malawi et al. (2018) reported a higher percent of male students (80%) compared to female students (60%) students use some form of contraceptives when having sex. The high rates of HIV/AIDS infection in

Malawi and sensitization done in the country on the advantages of using condoms could explain why more male than female use condoms. The findings are also corroborated by a study among young people in Ethiopia which concluded that the reasons why students used services is because of their history of engaging in sexual intercourse and having heard of where the SRH services are being offered (Tilahun et al., 2021). Ajayi, Nwokocha and Akpan's (2018) study reveals that university students in Nigeria are not using condoms because they believe condoms reduce pleasure and sex is sweet without a condom. Such carefree attitudes may discourage condom use and put students at risk of unplanned pregnancies, STI and HIV/AIDS infections. According to Duby et al. (2022), gendered power inequity in decision-making that favours male students could explain why more male students than female are using condoms.

Nevertheless, this study findings differs from another carried out among university students in Ethiopia. The study revealed that fewer students (24%) had ever used any form of reproductive health services (Adinew, Worku & Mengesha, 2013). The findings also differ from a study carried out by Hoque, Ntsipe, Nthabu (2013). Their study reported that most of the surveyed university students (76%) in Botswana had always used contraceptive methods with the condom (95.6%), being the most used contraceptive followed by oral contraceptive pill. The high rate of condom use in Botswana could be attributed to high levels of HIV/AIDS infections reported in the country over the years and the government's concerted efforts to promote the culture of abstinence, being faithful and condom use.

There is need to sensitize the students about the benefits of using contraceptives and to make the contraceptives available and easily accessible to the students.

4.4.5 Source of Contraceptives

The study investigated the sources of the students' contraceptives and presented findings in Figure 4.5 below. The source of contraceptives provided an indication of the students' preferences as well on where the contraceptives are available.

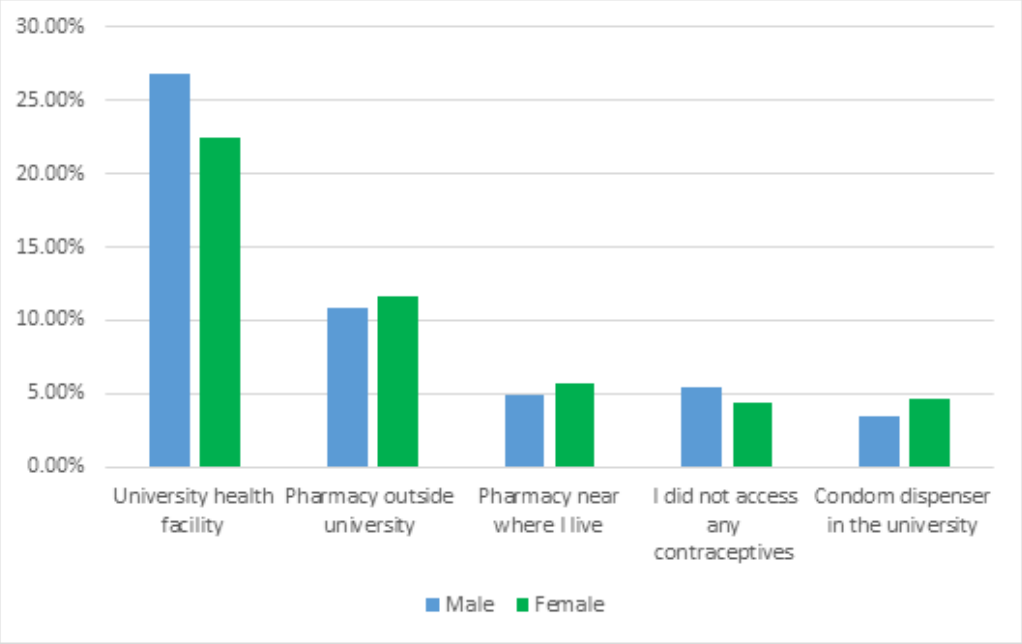

Figure 4.5: **Source of Contraceptives**

A big number of students, 182 (49.2%) obtain contraceptives from university health facilities, 83 (22.4%) students get them from pharmacies near where they live with 30 (8.1%) respondents accessing contraceptives from condom dispensers in the university. In terms of gender more male (26.76%) than female (22.43) students obtain contraceptives from university health facilities. Conversely, more female (11.62%) than male (10.81%) students acquire contraceptives from pharmacies outside the university. The findings can be interpreted to mean that most students prefer to utilize university-based health facilities because the services are either free or highly subsidized. In addition, whereas condoms were the most used contraceptives, condom dispensers in the halls of residency may not have been used because in most cases the dispensers are empty and not quickly refilled when condoms are depleted.

In support of the findings, Jane* and Moses*, FGD participants retorted:

> *Most students prefer accessing SRH services from health facilities in the university. When you are in school it is hard for you to go elsewhere to seek the services (FGD participant, 03 March, 2021).*

The above statement can be interpreted to mean that students want to access contraceptives from the nearest place most probably because sex happens with no prior plans from both parties.

> *The condom dispensers in the halls of residency are usually empty with no supplies (FGD participant, 11 March, 2021).*

The above statement implies that whereas there are condom dispensers installed in the halls of residency, the dispensers are mostly empty most of the time.

A key informant working in the university noted that:

> *There are condoms in university health facilities which the students can access. We also have a counsellor in the clinic. Sometimes we organize sensitization sessions about their sexuality and sensitize them that health services including contraceptives are available in the clinics (Respondent KII 6, 08 March, 2021)*

The above statement from a health service provider in one of the universities insinuates that universities are equipping their health facilities with services that promote the SRH wellbeing of the students.

Another key informant who was of the alternative opinion that students prefer accessing services away from the university said:

> *The students fear seeking services from the universities because of stigmatization. They like going far to seek the services. The services are provided in school but they are not advanced as we would like them to*

be. Lack of funds are some of the reasons why there are no services (Respondent KII 11, 10th March, 2021)

This quote implies that some students feel university-based services lack confidentiality and would lead to the students' stigmatization if they are seen utilizing them. In addition, the students feel that the quality of services is not good compared to services offered by facilities away from the university because of minimal investment in the services provided.

The findings are in line with a study by FHI, ICL and UON (2014) that revealed a majority (80%) of University of Nairobi's Kikuyu campus students received their SRH services from the health facility located in the university because of ease of accessibility. The same study provided reasons for the students who do not utilize their campus's SRH services as perceived lack of confidentiality by the service providers as the main reason. In the same breadth, the findings concur with a USAID (2017) study that most students prefer using in-campus services, particularly contraceptives especially condoms, STI treatment, and HIV testing and care, when they are treated with respect.

However, the findings differ with a study by Mbugua and Karonjo (2018) that established that a paltry 25.6% of Mount Kenya University students accessed services from the university clinic with about 57% preferring accessing SRH services in health facilities located away from the university (Mbugua & Karonjo, 2018). The opposing

findings by Mbugua and Karonjo (2018) could be because of lack of established health centres in Mount Kenya University. Similarly, a study by Gunta et al. (2021) among university students in Ethiopia found out that only 10.9% of the students use clinics in the university with most of the students finding them inadequate.

Andersen's Behavioural Model of Health Care Utilization emphasizes that people use health services because of the need, demand and supply of the item. The need in this case is the students who are engaging in sexual intercourse and would like to stay safe and avoid unplanned pregnancies. The supply refers to the ability to access the services from locations where it is available. Most students prefer accessing the contraceptives from health facilities because they are free of charge while others prefer to access the contraceptives from pharmacies around the university because they are assured of availability of the services.

4.4.6 Testing the Null Hypothesis H_{01}:

The relation between sexual behaviour and utilization of contraceptives by students was statistically determined. To determine the relationship between sexual behaviour and use of contraceptives by students, the following hypothesis was tested:

> ***H_{01}**: There is no association between sexual behaviour and utilization of contraceptives by university students in Nairobi City County.*

The hypothesis was tested using a chi-square test and the results are stipulated on Table 4.16 below.

Table 4.16: ***Chi-square Test on the Correlation between Use of Contraception and Engaging in Sexual Intercourse***

		In the last 12 months, have you had sexual intercourse	Do you use contraceptive when you had sex with your partner
In the last 12 months, have you had sexual intercourse	Pearson Correlation	1	.370**
	Sig. (2-tailed)		.000
	N	370	370
Did you use contraceptive when you had sex with your partner	Pearson Correlation	.370**	1
	Sig. (2-tailed)	.000	
	N	370	370

**. Correlation is significant at the 0.01 level (2-tailed).

The results presented in Table 4.16 above, at 95% level of confidence, indicate a moderate relationship between sexual activity and use of contraceptives, which is statistically significant (r=0.370, p=0.000). The study hypothesis 'there is no association between sexual behaviour and utilization of contraceptives by university students in Nairobi City County' was therefore rejected. Consequently, the study concludes that there is a correlation between sexual activity and use of contraceptives.

Andersen's Behavioural Model of Health Care Utilization emphasizes that usage of health services is determined by predisposing factors, enabling factors, and the need. Therefore, the need for contraceptives is influenced by the need to stay safe by the sexually active students considering they are concerned about getting infected with HIV/AIDS and getting pregnant or impregnating someone.

4.4.7 Attitudes of University Students towards Sexual and Reproductive Health

This question sought to find out the attitudes of university students towards sexual and reproductive health contraceptive use. In particular, a question was presented to determine the attitudes of university students towards contraception use. Table 4.17 below presents the findings.

Table 4.17: ***Students' Attitudes Towards Contraception***

Count

		What is your attitude towards contraceptives?						Total
		Contraceptive use is good and should be promoted	It is immoral to use contraceptives	I get ashamed while seeking contraceptives	A girl or boy who is not married should not use contraceptives	Young people should be given information about contraceptives	Young people who are sexually active should have access to contraceptives	
Gender	Male	24	34 (6.5%)	37	40	26	29 (7.8%)	190
	Female	17	24 (9.2%)	31	42	27	39 (10.5%)	180
Total		41 (11.1%)	58 (15.7%)	68 (18.4%)	82 (22.2%)	53 (14.2%)	68 (18.4%)	370

As presented in Table 4.17 above, a significant number of students, 82 (22.2%) said that a girl or boy who is not married should not use contraceptives. Others, 68 (18.4%) noted that they feel ashamed while seeking contraceptives. There are those, 58 (15.7%) who said it is immoral to use contraceptives and this was echoed by more male than female at 34 (9.2%) and 24 (6.5%) respectively. Only 41 (11.1%) responded that contraceptive use is good and should be promoted. A significant number, 68 (18.4%) observed that

young people should be given information on contraceptives. Female students were more positive that young people who are sexually active should use contraception compared to male students at 10.5% (39) versus 7.8% (29) of male students.

The findings can be interpreted to mean that most university students exhibit negative attitudes towards contraceptive use compared to the student respondents with positive attitudes towards contraception use. The students who completed the survey belong to different communities in Kenya. Negative attitudes towards contraception could be as a result of the socialization process which emanates from the students' diverse cultures and religious affiliations. Consequently, engaging in sex before marriage is depicted as being wrong and evil. Indeed, attitudes are largely shaped by one's cultural socialization and the religion one belongs to. Nonetheless, female respondents were more positive that sexually active students should be given contraceptives most probably because they shoulder the biggest burden occasioned by negative consequences of premarital sex including getting pregnant which can lead to dropping out of school or postponing schooling. In addition, society puts the blame of pregnancy on women; hence, the reason more female than male students are more tolerant on the use of contraceptives by sexually active young people.

According to the literature review done in this study, there are more negative attitudes compared to positive ones among university students on contraceptive use. Notably, Adinew, Worku and Mengesha (2013) established that 56.7% of the university students investigated agreed with the statement that unmarried couples have no right to use contraceptives because contraceptives promote immorality.

Attitudes of university students towards contraceptives are associated with contraceptive uptake (Njoroge, Ng'ang'a, Mbakaya & Mutai, 2020). The findings of this study are in line with a study by PMA (2020) that revealed that about 50% of adolescents are of the opinion that their adolescent counterparts who use family planning methods are promiscuous and about 40% of contraceptives non-users are of the opinion that family planning is only for married women. Still another study by Håkansson, Super, Oguttu and Makenzius (2020)'s among schools in Western Kenya showed that a third of the surveyed students believed that contraceptives may cause infertility, and its use is related to promiscuity. A study among female university students in Uganda that showed that only 20.1% of the students interviewed thought it was wrong to use contraceptives with a big majority (93%) saying that contraceptive use is good and beneficial (Nsubuga et al., 2016). This finding among university students in Uganda could be attributed to high cases of HIV/AIDS in the country and the campaigns that bolster contraceptive use. A study by Mejía-Guevara, Cislaghi and Darmstadt (2021) among men in India showed that they had negative attitudes towards contraception use viewing it as woman's business. A majority of the students studied said that they fear using contraceptives because of the potential side effects (55.6%) and lack of information about contraceptives (18.5%) (Sitini, Okova, Nizeyimana & Rutayisire, 2020).

The findings are supported by FGD participants who showed negative attitudes towards young people who use contraception. For example, Dorcas* said:

> *Young people who are not married should not be given condoms. Condoms encourage immorality. However, it is better to use condoms than not to use should one decide to engage in sex (FGD participant, 10th March, 2021)*

This opinion from one of the students can be interpreted to mean that whereas students can have negative attitudes towards contraceptives, they welcome contraceptives use to maintain good health.

Some FGD participants had positive attitudes towards the use of contraceptives. For example, Gregory* an FGD participant said:

> *Students should be given and encouraged to use contraceptives because regardless of whether they are given contraceptives or not, they will still engage in sex (11th March, 2021).*

This statement indicates support for contraceptive use and implies that students will still engage in sex regardless of whether they have contraceptives on not; therefore, it is safer to provide them

The Social Ecological Model helps to underpin the multifaceted levels within a society and the interaction between the individual, community, and the environment. At the community level, social norms that portray sex among unmarried people as evil could be responsible for the negative attitudes towards contraceptive use. At the individual

level, attitudes towards the use contraceptives could be driven by the desire to stay health and to avoid unplanned pregnancies. At the environmental level, policy frameworks have provided a framework for access and utilization of contraceptives which contribute to the student's attitudes towards contraceptives.

The findings of this study show that most university students (56.3%) have negative attitudes towards contraception compared with those who have positive attitudes (43.7%). More male than female students showed negative attitudes towards contraception use.

4.4.8 Religion and Attitude

This question sought to determine the relationship between religion and attitudes of university students towards sexual and reproductive health contraceptive use. Specifically, a question was presented to determine whether there is a relationship between attitudes of university students and utilization of contraceptives. Table 4.18 below presents the findings.

Table 4.18: ***Religion and Students' Attitudes of Contraception***

Religion	Contraceptive use is good and should be promoted	It is immoral to use contraceptives	I feel ashamed while seeking contraceptives	A girl or boy who is not married should not use contraceptives	Young people should be given information about contraceptives	Young people who are sexually active should have access to contraceptives
Protestant	(20)10.7%	(32) 17.2%	(43) 23.12%	(38) 20.43%	(24) 12.9%	(29)15.59
Catholic	(16)13.5%	(15) 12.71%	(11) 9.32%	(32) 27.18%	(23) 19.49%	(21)17.79
Adventist	(4)8.3%	(8) 16.67%	(9) 18.75%	(9) 18.75%	(4) 8.33%	(14)29.17
Muslim	(1) 5.56%	(3) 16.67%	(5) 27.78%	(3) 16.67%	(2) 11.11%	(4)22.22

As presented in Table 4.18 above, 10.7% (20) of the Protestants, 13.5% (16) of Catholics, 8.3% (4) of Adventists and 5.56% (1) of Muslim said that contraception use is good and should be promoted. 17.2% (32) of Protestants, 12.71% (15) of Catholics, 16.67% (8) of Adventists and 16.67% (3) of Muslims noted that it is immoral to use contraceptives. 20.43% (38) of Protestants, 27.18% (32) of Catholics, 18.75% (9) of the Adventists and 16.67% (3) of Muslims said that a girl or boy who is not married should not use contraceptives. In general, 39.19% (73) of Protestants, 52.48% (60) of Catholics, 45.8% of Adventists and 38.89% of Muslims had positive attitudes towards contraceptives. Nevertheless, 60,89% (113) of Protestants, 47.52% of the Catholics, 54.2% of Adventists and 61.11% of Muslims have negative attitudes on contraceptive use.

The above findings show that Muslims and Protestants have the most negative attitudes towards contraception. More Catholics have more positive attitudes towards contraception compared to their counterparts with negative attitudes. The findings can be interpreted to mean that students professing the Muslim faith have negative attitudes

towards contraception use because their religion is more conservative when discussing matters around sex among unmarried youth. Whereas the Catholics are known to be against contraception, the findings show that Catholics are more liberal on contraception use.

A literature review conducted on religion and attitudes showed that religion influences contraception use. That religious leaders have a good knowledge on modern contraceptive methods, but they prefer traditional contraceptive methods and abstinence (Barro et al., 2021). Moreover, negative attitudes toward safe sex practices can be influenced by cultural backgrounds, religion, or lack of education in regard to birth control methods. A study by Kajic et al. (2015) established that non-religious students had more positive attitudes toward contraception use. Tigabu, Demelew and Seid, Sime and Manyasewal (2018) in their findings argue that Muslims are 65% less likely to utilize modern-contraceptives compared to Orthodox adherents. Findings show that a significant percentage of Muslim students have negative attitudes to contraceptive methods based on their view that they are not allowed (haram) in Islam (Karout & Altuwaijri, 2012). Still on contraception use, Nsubuga et al. (2016) established that the prevalence of contraceptive use was 75 % higher among married compared to none married, and 35 % lower in the Evangelical or Seventh Day Adventists (SDAs) compared to the Roman Catholic students. This finding may indicate that Roman Catholic students are not using contraception. However, they still have positive attitudes towards their usage.

Table 4.19: ***Correlation between Service Utilization and Attitudes towards Contraception.***

		Which services did you utilize from the facility	What is your attitudes towards contraception
Which services did you utilize from the facility	Pearson Correlation	1	.015
	Sig. (2-tailed)		.774
	N	370	370
What is your attitudes towards contraception	Pearson Correlation	.015	1
	Sig. (2-tailed)	.774	
	N	370	370

A correlation between contraceptive use and attitude was done to establish the relationship. The results are presented in table 4.19 above. The results indicate there is no correlation between service utilization and attitudes towards contraception (r=0.015, p=0.774). This can be interpreted to mean that the attitude of the students does not influence whether they will use contraceptives or not. Therefore, despite of the attitudes, when students have a need for contraceptives, they are likely to use them.

The findings indicate that the students' attitudes do not influence whether they use contraceptives or not. Further, the findings indicate that students will use contraceptives when they have a need for them. This finding can be interpreted to mean that regardless of one's views on contraceptive use, they will use the contraceptives if they need them especially if the contraceptive method can assure them of safer sex. Therefore, awareness raising on contraception use, especially for the sexually active students is

important, not necessarily to change attitudes but for the students to know the risks and repercussions for not using contraceptives.

Nsubuga et al. (2016)'s study among university students in Uganda found that contraceptive use is influenced by the year of study, being in a consensual relationship rather than attitude. Other findings indicate that high levels of contraceptive use can clearly co-exist with widespread misgivings about methods with the perceived health benefits accompanying the methods (Machiyama et al., 2018).

4.5 Awareness of SRH Policy Frameworks that Impact on the Provision and Utilization of SRH Services among University Students

4.5.1 Introduction

The fourth objective sought to investigate awareness of policy frameworks that impact on the provision of SRH services among university students. The study respondents were asked about their awareness of national and university level SRH policies.

4.5.2 Knowledge of National Level Sexual and Reproductive Health (SRH) Related Policies

The study sought to find out awareness of national level sexual and reproductive health (SRH) related policy frameworks with a view of determining whether utilization of SRH services is associated with awareness of SRH policies. The findings are presented in Figure 4.6 below.

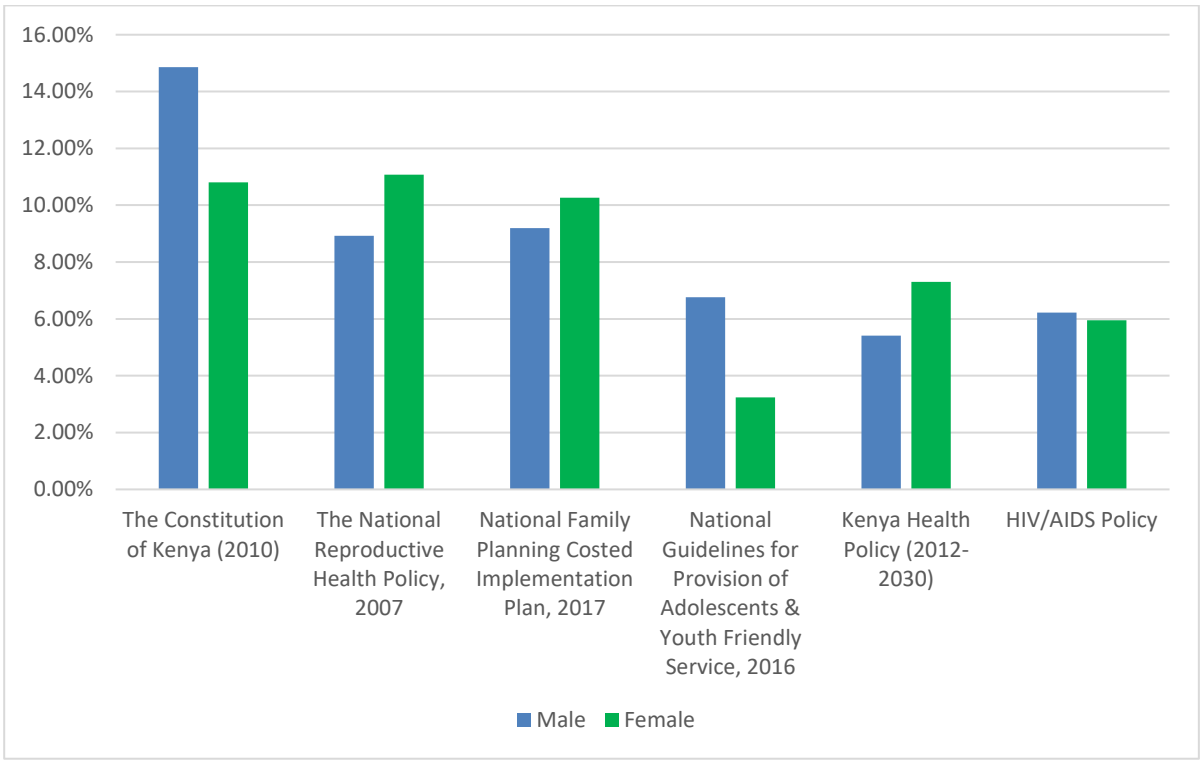

Figure 4.6: **National Sexual and Reproductive Health (SRH) Related Policies Students are Most Aware of**

Most students, 95 (25.7%) reported that they were aware of the Constitution of Kenya (2010). This was followed by 74 (20%) students who were aware of the National Reproductive Health Policy, 2007. Some students surveyed, 72 (19.5%) reported that they were aware of the Family Planning Costed Implementation plan, 2017 with 45 (12.2%) students surveyed indicating that they were aware of the National HIV/AIDS policy. There were gender differences in awareness of the Constitution of Kenya (2010). More male (14.8%) than female (10.81%) students reported awareness of the Constitution of Kenya (2010). Similarly, the National Guidelines for Provision of Adolescents and Youth Friendly Services, 2016 and the Kenya Health Policy, 2012-

2030 is known by 25 (6.8%) male and only 12 (3.2%) female students and 20 (5.4%) male and 27 7.3%) female students surveyed reported to be aware of respectively.

The low levels of awareness of SRHR policy frameworks can be interpreted to mean that students are disinterested in seeking information related to policy frameworks and related current affairs in the country. The reason why there are fewer female students who are aware of common SRH related policy frameworks like the constitution could be due to poor women participation in policy making processes. In the Kenyan political space, efforts to propel women to political leadership have been unsuccessful because of several factors. For instance, patriarchy favours men, and weak financial muscle typical of women could be blamed for the low awareness of policy frameworks. Patriarchy entrenches favouritism among boys and men at the expense of girls and women. Moreover, with few role models among women, young women may not be interested in getting informed about policy frameworks in place.

Most FGD participants and key informants concurred with the ambiguity of awareness and implementation of SRH related policies. For example, Moses*, one of the FGD participants said:

> *We are not aware of any existing SRH policy frameworks (FGD participant, 08 March, 2021)*

The above statement puts weight and confirms that there are low levels of awareness of SRH policy frameworks by university students.

Silvia*, another FGD participants said:

> *Students seek SRH services when they are desperate and when they have a need for the* services *(FGD participant, 03 March, 2021).*

The above opinion by a female students can be interpreted to mean that students will not seek services unless they have been pushed to the corner by a need for the services. The main undoing for this assertion is that they may seek the services when a health issue has advanced. This is in line with Andersen and Newman Framework of Health Services Utilization that says individuals seek services when they have a need for the services. This does not imply that there is no need for the students to be sensitized about the policy frameworks in place.

These findings are not different from a study among young people in Ethiopia. It revealed that a whopping 64% of young people surveyed had poor knowledge of SRH policies and services while 53.4% were not conversant with SRH services provided in the health facilities (Yared, Sahile & Mekuria, 2017) because no efforts had been put in place to make the students aware of the policy frameworks. The finding on the low levels of awareness of SRH policy frameworks were also in line with findings by FHI and MOH (2012) that despite the availability of policies and guidelines that support access of SRH services by young people, awareness of the respective policies are low

due to poor dissemination of the developed policy documents that lead to few people being aware of their existence and as a result even few use the documents in SRH programming. One of the reasons for not publicizing the policy documents is the low budget allocation to the process (FHI & MOH, 2012). The findings concur with UNDP (2014) that despite of the public promulgation of the Constitution of Kenya in 2010, there is low civic awareness on the constitution and only a few people are aware of its contents.

The Social Ecological Model emphasizes the importance of an enabling environment in health service provision and utilization. It is therefore, important to consider aspects of policy awareness and the effect they have on utilization of SRH services by university students.

It should be noted that it is the responsibility of the government to sensitize its citizens on the available SRH policy frameworks. Through partnerships with the universities and the media, students' levels of awareness could be enhanced on the available SRH services. Universities should deliberately sensitize the students on the SRH policy frameworks in place that support access and utilization of services.

4.5.3 Awareness of University Sexual and Reproductive Health Related Policies

As presented in Figure 4.7 below, the study sought to establish whether the students are aware of the existing university SRH policy frameworks with a view of determining whether utilization of SRH services is associated with awareness of SRH policies.

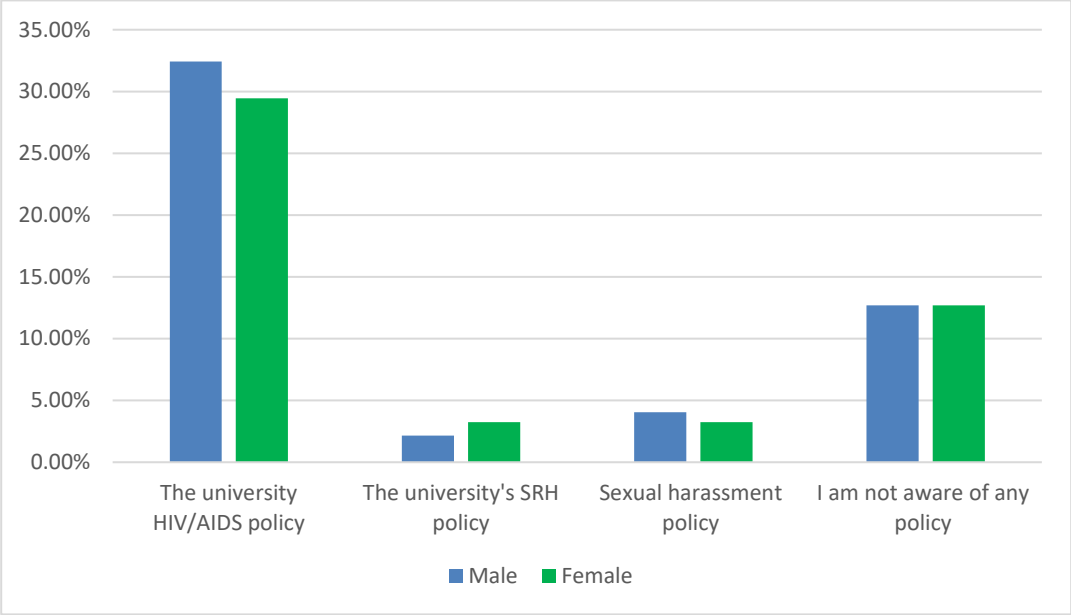

Figure 4.7: **Sexual and Reproductive Health Related Policies Developed by the University that the Students are Most Aware of**

As per the findings presented in Figure 4.7 above, most students, 229 (61.9%) split in almost equal numbers, male, 120 (32.4%) and female, 109 (29.5%) are aware of the university HIV/AIDS policy. Only 27 (7.3%) of the students surveyed said they were aware of the sexual harassment policy. Those who said they were aware of the university SRH policy were only 20 (5.4%) students. The surveyed students who said they were not aware of any university SRH policies were 94 (25.4%), split in equal numbers between male and female students.

The findings indicate low awareness of SRH policy frameworks by either gender which could be interpreted to mean that participation of the students, especially female students in the development and dissemination of policy frameworks is poor. Marginalization of especially female students in the development of policy frameworks can be attributed to social and gender norms that promote the participation of men in

policy making at the expense of girls and women. Universities should, therefore, communicate the importance of SRH policy frameworks and disseminate them to the students through different channels both in-person and through virtual platforms on a regular basis. It's worth noting that almost all university students in Kenya own a smart phone which can be an excellent channel for disseminating the policy frameworks. Universities should proactively involve the students in the development, dissemination, and implementation of SRH policies so that the students are aware of their rights.

The findings were corroborated by three different FGD participants who noted that:

> *We do not know of any policy framework. We are only aware of free testing. Normally, there is no awareness of the services. You just see tents erected within the university (Female FGD participant, 08 March, 2021)*

> *The policy action on students not being in ladies' hostel past 10:00pm is what we know (Male FGD participant, 11 March, 2021)*

The above sentiments by two FGD students imply that the contents of the policy frameworks are not known by the students and that students are only aware of the services and restrictions in place because they can see the services offered and can be restricted by the actions.

We have not been involved in the development of any policy frameworks. We also do not know of any policies FGD participant KCA University; (FGD participants MMU, 08 March, 2021).

The above assertion implies that there are students who are not aware of any SRH policy framework developed by their universities.

A key informant said:

I know the policies are there, but I cannot name any specific policy. I also think the students are aware, but I cannot confirm the extent the students are aware (Respondent KII 6, 07 March, 2021.)

The above statement implies that like university students, university staff are equally ignorant of the existing SRH policy frameworks.

A literature review carried out corroborated this findings. A study by ICL (2019) established that most universities have developed HIV/AIDS policies and popularized them explaining why most students are only aware of the universities' HIV/AIDS policies. The increased awareness of HIV/AIDS policies could be because HIV/AIDS is a compulsory common unit for all undergraduate students. The EAC (2010) found out that all the universities they surveyed had HIV/AIDS policies that had been developed, but not fully implemented while some universities had gender and sexual harassment policies (EAC, 2010). HIV/AIDS was declared a national disaster in November, 1999 by the then President of Kenya. For this reason, universities were required to establish AIDS Control Units and put in place personnel and resources to prevent and mitigate

the impact of the pandemic. Universities developed and proactively disseminated HIV/AIDS policies, explaining why awareness of the HIV/AIDS policy frameworks could be high.

The findings of low awareness of SRH policies and the subsequent ignorance of SRH services concur with a study by FHI et al. (2012) that 36% of the students were not aware of university SRH policies and after a two-year sensitization period there was a positive effect and only 11% of the students were now not aware of any SRH services offered in the university. The findings are also in agreement with findings of a study among college students in Malawi that revealed that only a small number of students, 50% and 29.7% of females and males respectively, were aware of SRH interventions in their university (Government of Malawi et al., 2018).

The concerted efforts from partners, universities, media and the private sector may have led to the increased knowledge levels of HIV/AIDS policy. Such efforts are required to increase awareness of SRH policy frameworks developed by the university. In addition, the role of the national and county government is critical in putting SRH issues of young people in national and local level discussions. This could lead to discussions of SRH policy frameworks at the university level.

4.6 Relationship between SRH Policy Frameworks and Utilization of SRH Services at Universities in Kenya

4.6.1 Introduction

The fifth objective of the study investigated whether awareness of SRH policy frameworks relates to the way students seek and utilize SRH services. Awareness of sexual and reproductive health policies were cross tabulated with services utilized to provide a relationship of the two variables.

4.6.2 Student's Perception on Whether Awareness of SRH Policies Affect Service Utilization

The study sought to find out the students' perception of whether awareness of existing SRH policy frameworks influences SRH service utilization. The findings are presented in Figure 4.8 below.

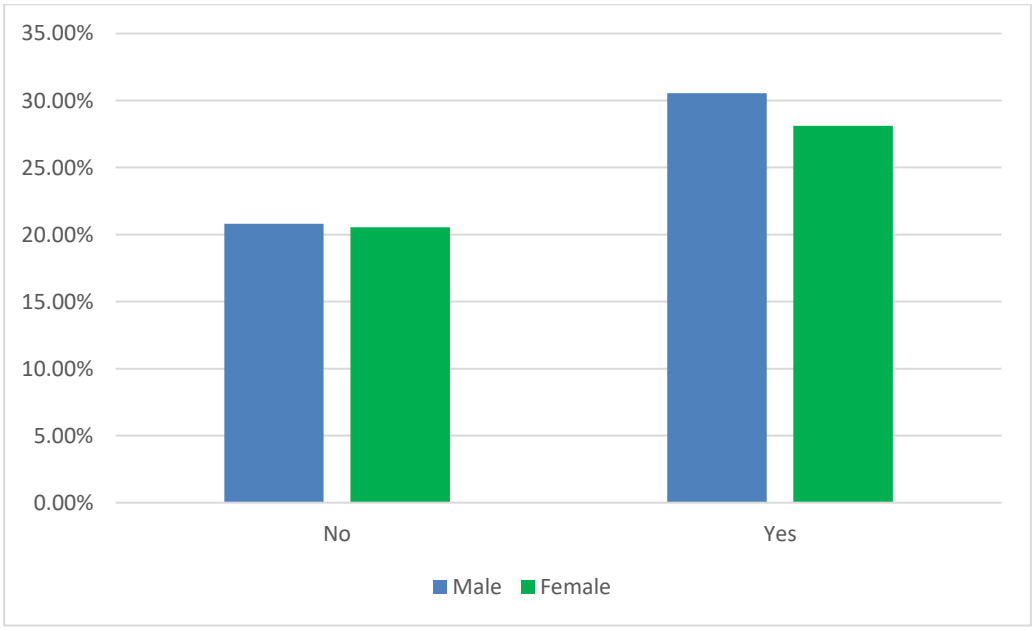

Figure 4.8: **Whether Awareness of Availability of SRH Policy Framework Affect the Way Students Seek and Utilize SRH Services**

As presented in Figure 4.8 above, most students, 217 (58.6%) with numbers split between male, 113 (30.5%) and female, 104 (28.1%) reported that awareness of SRH policy frameworks affect the way they seek and utilize SRH services compared to a total of 153 (41.3%), 77 (20.8%) male and 76 (20.5%) female students who said that awareness of existing policy frameworks does not affect the way they seek SRH services.

The findings imply that students in need of SRH services may seek the services with increased confidence if they were aware of existence of policy frameworks that support provision and utilization of the services. Sex is highly stigmatized and hardly a topic young people are encouraged to discuss due to religious and cultural values that discourage sex among unmarried people. For this reason, issues pertaining to sex that are legal are in most cases considered illegal and a taboo for young people to discuss. Policy bearers and universities should be intentional in letting the students know about the existing policy frameworks and encourage them to use the services.

The best way to increase SRH service utilization by young people in universities is by encouraging their participation in policy making processes so that they are aware of their rights. This is especially important because the public assumes that university students are more informed than the general population. Government decision makers and university management should be held accountable in the implementation of policy frameworks so that there are no gaps in the dissemination and implementation of the policy frameworks. Therefore, it is important that the students are sensitized on the need

to hold university management into account on the implementation of the policy frameworks.

The FGDs conducted revealed that even those who are aware of the policies may not be aware about their contents. Most FGDs illustrated that whereas they were asked of their opinion on the different policies, they were not aware if the policies were finalized. For instance, Kennedy *, a participant in the FGDs said:

> *We are sometimes asked to provide input to the different policies being developed but we are never told whether such policies were finalized or disseminated (FGD participant, 11 March, 2021)*

Grace*, a participant in one of the FGDs said:

> *When you are aware of the services, there is a higher likelihood to use them because of the confidence that the services are legally provided (3rd March, 2921).*

The two statements above by two FGD participants imply that dissemination of the policy frameworks is poor; hence, low awareness of the contents of SRH policy frameworks.

These findings were corroborated by other researchers. A study by FHI et al. (2012) documented the impact of awareness of SRH policies after it established that increasing awareness of SRH related services among the students of Kikuyu campus led to increased utilization and satisfaction of SRH services provided in the university from

33% at the baseline to 67% at the end line. Another study by Hudson, Hunter and Peckham (2018) emphasized the importance of collaboration between the different stakeholders in the development of the different policy frameworks. This means that universities and students should be involved in national level policy development for ease adoption. A study among young people in Ethiopia found out that 28.1% of participants reported that they have ever heard about adolescents' and youth's SRH with only 8.6% reporting to have ever used the services.

Therefore, it is important to make students aware of the SRH policy frameworks to increase their confidence in seeking services.

4.6.3 Policies and Policy Actions that Influenced the Students to Access the Services

The study established the policy actions that influenced the students to seek SRH frameworks with a view of determining the policies that influenced the students the most. The findings are presented in Figure 4.9 below.

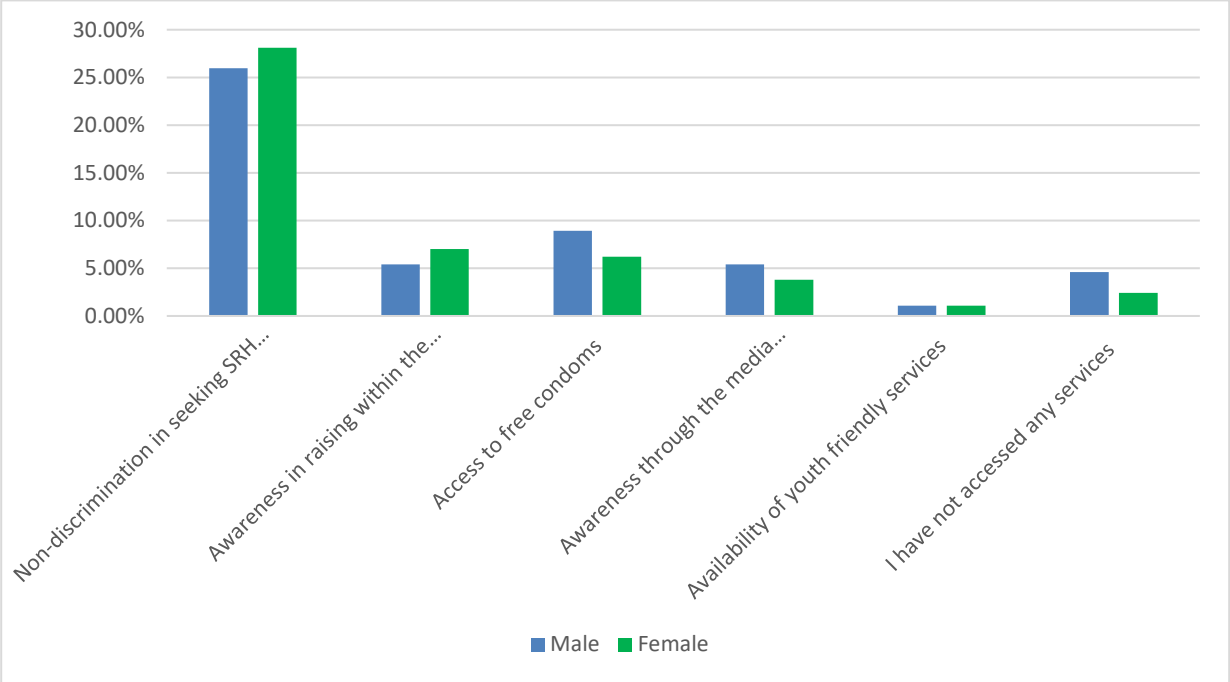

Figure 4.9: **Policy Actions that Influenced Students to Access Sexual and Reproductive Health Services**

Most students surveyed, 200 (54%) reported it was non-discrimination in seeking SRH services, 56 (15.1%) reported it was access to free condoms, 34 (12. 4%) reported that it was awareness raising within the university while 26 (9.2%) students surveyed reported it was awareness raising through the media outside the university. In terms of gender, more male students 33 (8.9) compared to female, 20 (5.4%) ranked access to condoms more important than awareness raising on the available SRH services. Conversely, more female students 28 (7%) than male students surveyed, 23 (6.2%) ranked awareness raising of available SRH services as more important than access to condoms. More male (4.59%) than female (2.43%) said they had not accessed any SRH services.

The findings imply that offering SRH services in a non-discriminatory manner, making condoms available and increasing awareness of available SRH services will most likely lead to improved utilization of SRH services by the students. The government, civil society organizations and universities should endeavour to make the services available and affordable as well as train health service providers on youth friendly service provision. This can be done through partnerships with the private sector, civil society organizations and the donor community. In addition, being young and living in a digital era, universities should capitalize on digital technology to connect students with SRH services. Culturally, accessing SRH services is regarded as an activity for women this could explain why more female than male students have accessed SRH services.

These findings are corroborated by FGD participants who noted that:

> *Our university has made condoms available in the toilets, there is a compulsory course on HIV/AIDS and free HIV/testing at the university health centre. In addition, there is an HIV/AIDS awareness week dedicated to raising awareness and testing of HIV/AIDS (08 March, 2021).*

Another FGD participants asserted that:

> *The HIV/AIDS course is quite useful. Sex education is also quite important as well as free testing of HIV/AIDS. It was also important to raise awareness on how to use the condom (FGD participant KCA University, 11th March, 2021).*

The comment above by a male FGD participant shows the importance of a structured process in increasing awareness of SRH and existing policy frameworks. When

HIV/AIDS was declared a national disaster, universities were required to develop curricula for teaching the course.

The findings were also corroborated by another female FGD participant who said:

> *We seek services not because of the policy frameworks but because we want to know our status. Sometimes you think you are infected because we share boyfriends, so you go for screening because you want to be certain of your status. But the services should be given with a lot of confidentiality for us to utilize them (FGD participant KCA University, 11th March, 2021).*

The views from the university students emphasize the importance of confidentiality and the fact that students seek services majorly because of the need rather than because of existing policy frameworks. However, the students' awareness of existing policy frameworks promote confidence in the utilization of services.

These findings concurred with other researchers on the policies that can improve uptake of SRH services. A study among university students revealed that students believed that making the locations where SRH services are provided more visible would lead to increased uptake of services (Cassidy et al., 2018). The same study emphasized that lack of confidentiality can lead to stigma; hence, the need to improve trust and confidentiality among the students (Cassidy et al., 2018). The findings however slightly differed with a study by Manoti (2015) that suggested a majority (23.1%) of the

students want enough information, with 18.1% wanting easy access to health facility. Those who wanted youth friendly services and increased health service providers were 12.5% and 11.3% respectively. WHO (2018) states that digital technology could be an excellent tool that helps young people to burst myths surrounding SRH; therefore, enhancing access to information and services needed in a confidential manner.

4.6.4 Effect of SRH Policy Frameworks on Utilization of SRH Services

A correlation between service utilization and national SRH policies was done to determine the association between the two variables. The findings are presented in Table 4.20 below.

Table 4.20: ***Correlation between Service Utilization and National SRH Policies***

		Which services did you utilize from the facility	Which of the following national sexual and reproductive health (SRH) related policies are you aware of
Which services did you utilize from the facility	Pearson Correlation	1	.017
	Sig. (2-tailed)		.747
	N	370	370
Which of the following national sexual and reproductive health (SRH) related policies are you aware of	Pearson Correlation	.017	1
	Sig. (2-tailed)	.747	
	N	370	370

The results in Table 4.20 above, indicate no or negligible relationship between awareness of national SRH policies and services utilized from the facilities, which is not

statistically significant (r=0.017, n=370, p=0.747). That is, there's no correlation between services utilized from the facilities and awareness of national SRH policies.

Whereas the analysis presented above indicate no correlation between services utilized and awareness of SRH policy frameworks, policy frameworks are important because they provide the legal framework for the students to seek services. An FGD participant said:

> *Policies give us confidence that what we are doing, and seeking is legal and not against the law (FGD participant KCA University, 11th March, 2021).*

At the same time, policies are important as advocacy tools and they ensure that universities provide and make available SRH services. For instance, HIV/AIDS is provided as a common course in the universities because all universities were required by policy to have AIDS Control Units to address the disease as a result of the negative impact it had upon the students and the university population in general.

4.6.5 Importance of SRH Policy Frameworks on Utilization of SRH Services

The study participants were also asked to provide their own views on the importance of SRH policy frameworks on their utilization of SRH service so as to obtain their perceptions on the importance of SRH policy frameworks. The findings are presented in Table 4.21 below.

Table 4.21: ***Importance of SRH Policy Frameworks on Utilization of SRH Services***

Statements	**Frequency**	**Percent**
Provides the legal framework to enable me access SRH services	187	50.5
Enables me to demand for SRH services	81	21.9
There is no effect at all on my utilization of services	28	7.6
They reduce discrimination	48	13.0
It enables us to organize and participate in SRH related events within the university	26	7.0
Total	**370**	**100.0**

Slightly more than half, 187 (50.5%) of the students responded that the policy frameworks provide the legal framework to enable them to access SRH services. This was followed by 81 (21.9%) students who said that the policy frameworks enables them to demand for SRH services. Others, 48 (13%) said that the policy supports reduction of discrimination. There are those, 28 (7.6%) who felt that the policy frameworks have no effect at all on their utilization of SRH services. The smallest number, 26 (7.0%) of the students said the policy frameworks enables them to organize and participate in SRH related events within the university.

The findings imply that students are aware of the importance of policy frameworks and the rights the frameworks bestow upon them to demand for services. The policy frameworks are important because they enable the students to seek SRH services with increased confidence.

These findings are corroborated by key informant interviewees who emphasized that policy frameworks are important as they provide a legal platform for providing SRH services to students. For instance, one key informant said:

> *The SRH policy are meant to lead to better allocation of resources for SRH programmes. However, we get stock-outs sometimes. Luckily, not for everything but there is something else to always use. If there are no pills, you will find condoms. The most common source of the shortages is due to commodity distribution challenges (Respondent KII 9, 7th March, 2021).*

The finding that legal frameworks give students confidence in seeking services is corroborated by Kangaude, Coast and Fetters (2020) who affirm that when laws are clear they promote confidence and access to SRH by young people. KNCHR (2012)'s report emphasizes the importance of SRH policies as they provide an enabling environment for people to demand for SRH services.

4.7 Strategies that could Lead to Increased Awareness and Implementation of SRH Related Policies and Utilization of SRH Services

The sixth objective sought to identify and propose strategies that could lead to increased awareness and implementation of SRH related policies and utilization of SRH services. Several strategies deduced from the study, literature review and personal experiences could be used to increase awareness and implementation of SRH related policies and

utilization of SRH services. Andersen and Newman Framework of Health Services Utilization was used to arrange the strategies and to offer suggestions on approaches that could be used to increase awareness and implementation of SRH related policies and utilization of SRH services. The framework provides an indication on the elements that influence utilization of SRH services. The factors are grouped into enabling factors such as availability of funds and resources including earning and access to the services. There are also need factors that motivate the use of services e,g. disease conditions and lastly predisposing factors that include; demographics and social structures. The strategies are listed and elaborated below.

i) Timely and Structured Age Appropriate SRH Education and Awareness Raising

Education and awareness raising is an important strategy in increasing utilization of SRH services. This strategy would help to address the gap of low SRH policy awareness and low utilization of SRH services by university students. In line with Andersen and Newman Framework of Health Services Utilization, this strategy is among the enabling factors of health utilization. The timing of raising awareness of existing policy frameworks and services available within the universities and surrounding environs is important because most students begin engaging in sexual activity at a young age when in high school and therefore, should be made aware of existing policy frameworks as soon as they begin university. Introduction to SRH should be among the topics all the students must be oriented on.

A related approach is for universities to consider expanding the HIV/AIDS common course to include crucial aspects of SRH including contraception. While working at the Cooperative University of Kenya, the researcher witnessed increased uptake of services when HIV/AIDS was introduced as an examinable common course and structured HIV/AIDS campaigns undertaken in the university. Besides, with most sexually active students beginning their sexual debut while in secondary school, the government should consider introducing comprehensive sexuality education (CSE) in schools. It should be noted that in 2013, the government committed to introduce CSE in primary and secondary schools but stakeholders including churches opposed the move with fears it will lead to increased immorality (Guttmacher Institute, 2017). An all-inclusive approach with all stakeholders should be used to hold honest discussions on the introduction of a comprehensive sexuality education (CSE) in schools.

Several FGD participants emphasized the importance of raising awareness of the existing SRH programmes and policies as a strategy towards increased utilization of SRH services. In one of the FGDs, a participant said:

> *Students should be made aware of the existing policies related to sexual and reproductive health. In our university, it is only the sexual harassment policy that students are aware about (FGD participant, 3rd March, 2021.)*

Another FGD participant retorted:

> *Organize regular SRHR sensitization workshops to raise awareness of the policies available within the universities. This can be done during*

> *first year orientation meetings and periodically. We only saw in the fees structure that we need to pay for medical, but we do not even know where the university clinic is located (FGD participant, 11th March, 2021)*

The same strategy was supported by key informants who emphasized the importance of raising awareness of SRH services. The key informant said:

> *As a strategy towards increased awareness of SRH policies*, w*e need to first educate the workers about the policies and then go down to students to be able to understand more of what the sexual and reproductive health policies entail (Respondent KII 1, 2nd March, 2021)*

Another key informant who felt that the management should do more to solve SRH issues affecting students said:

> *Encourage the management to reach out to students with SRH messages through seminars and training sessions (Respondent KII 2, 2nd March, 2021).*

This was corroborated by another key informant who felt that peer education can contribute to efforts to address the SRH wellbeing of students. The student said:

> *Involving student peer educators in disseminating information of what happens in the health facilities will most likely lead to improved utilization of services (Respondent KII 1, 2nd March, 2021).*

The same was re-affirmed by a key informant who said:

> *The reproductive health services are normally personal. We need to make students aware that we provide these services (Respondent KII 9, 8th March, 2021).*

Increasing awareness of existing policy frameworks to increase utilization of SRH services is in line with other researchers' recommendations. Melaku, Berhane, Kinsman and Reda (2014) posit that increasing knowledge levels of sexual and reproductive health among young people and peers lead to improved contraception use. Hamdanieh (2021) notes that SRH education campaigns are recommended and should be carried out among students and staff working in institutions of higher learning. WHO (2016) agrees with the findings and recommends that there should be awareness raising of SRH services among young people so as to increase utilization of SRH services. Furthermore, Sidse et al. (2017)'s study among secondary schools in Kenya found that only 2% of students reported learning about all of the topics that constitute comprehensive sexuality education and recommended the government to partner with stakeholders to offer comprehensive age appropriate sexuality education.

ii) Integration of SRH with other Services

One of the key issues that has been identified as a priority in improving access to SRH services is lack of confidentiality and high levels of stigma when young people visit health facilities to seek SRH services. Young people would rather not use services if they have a perception that they will be judged and stigmatized when people think that they are engaging in sex. Integrating services including SRH, HIV/AIDS and other medical services will increase utilization of the services because young people can

capitalize on a single visit to seek several services including, SRH services. This is part of the enabling factors proposed in Anderson and Newman Framework Healthcare Utilization Model. Most FGD participants observed that it is very important to integrate SRH services with other health services so that no assumption is made on the purpose of a visit to health facilities. In one FGD, a respondent said:

> *Sexual and reproductive health services should not be provided in isolation. Rather, they should be integrated with other services. This will lead to increased confidentiality about what the students have gone to seek from health facilities wherever they visit the health facilities to seek the SRH services and no one will be stigmatized (FGD participant, 3rd March, 2021).*

The sentiments were echoed by a respondent who said:

> *To reduce stigma, integration of SRH services with other services is essential (Respondent KII 16, 26th March, 2021).*

UNFPA (2018) agrees with the suggestion to integrate SRH services. Further, it postulates that integrating SRH services will lead to improved uptake of services by young people because most often, young people find it cumbersome to walk to different facilities to seek services. The Population Council (2021) argues in favour of integrating SRH services by stating that such a move increases the quality of health services because service providers are most likely to address what the clients want to improve uptake. Maharaj and Cleland (2015) state that from the service providers perspective, integration of services is good but it must be accompanied by additional training of

service providers to effectively offer the required services. Strategies should therefore be put in place to identify the services that to be integrated, convenient location of the health facilities with integrated services and training of health service providers on youth friendly service provision.

iii) Meaningful Involvement of Students in the Formulation and Implementation of Policy Frameworks

Meaningful involvement of stakeholders is important in the formulation and implementation of SRH policy documents and among enabling factors emphasized in Andersen and Newman Healthcare Utilization Model. This includes seeking the student's input in SRH services to provide information on how the services should be provided. Involving students will ensure that the services they need are available in the health facilities. In addition, the students themselves are likely to encourage their peers to seek the services since they are aware of the ones available. Meaningful involvement means that the student's views are sought and considered in the development and implementation of policy frameworks.

While the researcher was working as Manager for I Choose Life Africa's SRH programme based in the Co-operative University of Kenya, Kenyatta University and University of Nairobi, there was a reported increase in SRH service utilization by the students in all the targeted universities when the students were trained, invited to openly discuss SRH issues of concern and encouraged to sensitize their peers on what they have learnt. Such students went ahead to successfully convince their peers to seek SRH services including HIV/AIDS testing and contraception use. This suggestion was

reinforced by participants in another FGDs. For instance, Leah* an FGD participant from USIU said:

> *Before development of the various policies you need to first involve students by identifying their challenges. This should be done in a very confidential manner with their identity hidden (USIU, 26th March, 2021).*

Another FGD participant from USIU, Noella* said:

> *Involve students in development of the policies and not just in the collection of data (USIU, 26th March, 2021).*

The suggestions were supported by KIIs. For example, a key informant said that:

> *It will be appropriate if the institution will be able to come down and be able to hear and implement suggestions from both staff and students (Respondent KII 1, 3rd March, 2021).*

These comments from female FGD participants and KII emphasize the necessity of meaningful student involvement in policy making.

Wigle et al. (2020) argue in favour of involving young people in all stages of SRH policymaking to ensure enhanced utilization of SRHR services. Villa-Torres and Svanemyr (2014) aver that young people's rights to participation in the development of SRH policy frameworks will lead to improved SRH service uptake. Young people should be enabled to voice their needs, realities, and opinions in policy making so as to improve SRH service uptake (Women Deliver, 2018). Therefore, the voices of university students should be actively sought and their views considered and

incorporated in policy and decision-making process as well as in service provision both within and outside the university.

iv) Support Quantification and Forecasting of SRH Commodities and Needs to Reduce Shortages

Unavailability of services sought by the students is one of the reasons that leads to poor utilization of SRH services. Health facilities should develop a system of quantifying, forecasting and projecting SRH commodities and services sought by the students with a view of replenishing them before the commodities are depleted. Health facilities should also endeavour to have the right skills in place to offer the required services. This will help address the need factors as highlighted in Andersen and Newman Healthcare Utilization Model. Students assume they will not get services in future once they have sought and missed certain services and don't normally return to seek the services for the second time. Therefore, improving accessibility and availability of the services is one of the strategies that could enhance uptake of SRH services. This was attested by a key informant who said:

> *The idea to put condom dispensers in strategic places is good. This is one proposal that improves the sexual and reproductive health of students (Respondent KII 6, 7th March, 2021).*

A participant, Philip* in an FGD said:

> *Condom dispensers in halls of residency are usually empty. There should be a plan to replenish as soon as the condoms are depleted (3rd March, 2021).*

This sentiment from a male student participant indicates that there are no effective systems in place for refilling condom dispensers and that such systems should be put in place.

The suggestion is collaborated by other researchers. A study among young people in Rwanda recommended that the services offered to young people should be available so that the young people can utilize the services with confidence (Ndayishimiye, 2020). Plan International (2022) notes that for services to be accessible, they must be available, affordable, individual specific, and confidential with informed consent obtained wherever services are sought or are provided to young people.

v) Simplifying and Disseminating SRH Policies and Messages Using Different Platforms during Key Moments

The literature review conducted revealed that several policies have been developed by universities. However, few students reported being aware of such policies. It is therefore necessary that policies are disseminated widely and made available to all students to give the students confidence to seek SRH services. Universities should capitalize on first year orientation sessions, notice boards in the university and online platforms to disseminate SRH policies developed. Campaigns in social media and outreaches organized should supplement ways of increasing awareness of the developed

policies and SRH messages. In addition, policies should be simplified in easy to read formats before dissemination. This can take the form of infographics and brochures.

Most FGDs carried out emphasized the need to disseminate SRH policies developed by the universities. For instance, three participants from three different FGDs said the following:

> *Use social media to disseminate the policies. The school can develop an online platform for the students (KCA University FGD participant, 11th March, 2021).*

> *Most policies are only mentioned in handbooks and yet not all students read handbooks. Creative ways of disseminating the policies should be identified. For example, information on SRH policies should be sent via text and WhatsApp because not all students read their emails (3rd March 2021).*

> *Students should be taken through the policies developed in all stages of development and once developed, the policies should be simplified and a forum should be put in place for dissemination of the policies developed (USIU, 26th March, 2021).*

Further, a key informant attested the following:

> *The senate must accept that the SRH of the students is a priority and they must set aside funds for SRH activities (Respondent KII2, 2nd March, 2021))*

The assertions from the highlighted FGD participants point to the importance of simplifying and disseminating SRH policy frameworks. Several platforms can be used to disseminate the frameworks. Such platforms include: first year orientation, during class time, use of social media platforms and notice boards as well as during events organized within the universities.

vi) Increasing Resources to SRH Programs in the Universities through Partnerships

Increasing resources for SRH programmes will most likely lead to improved SRH utilization within the university. This is because one of the hindrances to SRH programming is poor resource allocation. Once put in use, resources can be used to predispose students to utilize health services. Resources can be in form of finances, human resource, time and space to carry-out SRH programmes and activities. Resources will ensure availability of services, training of service providers and proper functioning of health facilities in general. Moreover, resources will be used to make health facilities more youth friendly by providing free internet, games to keep the students and young people entertained as they seek services and fresh water provision. With competing priorities and limited funds, university should seek partnerships with national and County governments, private sector and civil society organizations who have interest in

the sector. The researcher has worked for a civil society organization implementing SRH programmes in universities and has witnessed students benefiting from such collaborations. In support of this recommendation, a key informant said:

> *The senate must accept that the SRH of the students is a priority and they must set aside resources in form of funds and human resource for SRH activities and seek partnerships with other organizations to offer SRH services– (Respondent KII 2, 3rd March, 2021).*

The above sentiment insinuates that universities have not prioritised SRH issues of the students. Setting aside resources for SRH programs will be one of ways to show commitment and prioritization of SRH.

vii) Conducting Research and Implementing Strategic Recommendations (Enabling)

The importance of research was emphasized by different respondents. Research helps to identify the specific needs of the students and puts in place evidence-informed strategies for addressing the students' needs. For instance, the findings from this study will be disseminated to relevant authorities within the universities, government and SRH stakeholders with the assumption that the recommendations will be used to enhance service uptake by the students. Research will also identify the unique characteristics of the students for universities to endeavour as well as collaborate with other stakeholders' tailor made services to suit the unique qualities of the students. The unique characteristics may include: students living with HIV, lesbianism, gayism, bisexuality,

transgender, queer and intersex (LGBTQI) students as well as students who are expectant and those with children. This will ensure that services provided by universities and health facilities frequented by the students are those they need to utilize. In support of the strategy to conduct more research, a key informant said:

> *Research on the concerns of the students will help the university to put in place the right measures to address the student's concerns (Respondent KII 13, 10th March, 2021).*

Equally, the findings from research should be published so that they are utilized by universities interested in the welfare of their students.

viii) Considering the Dynamics of Health Service Providers Including their Age and Gender

To address predisposing factors such as age, gender and beliefs, health facilities should carefully evaluate the age and gender of service providers to ensure that service providers in health facilities are of either gender or of diverse age groups for the students to have a choice on the specific health provider to attend to them. This is in tandem with Andersen and Newman Healthcare Utilization Model that has listed demographic characteristics as among the predisposing factors in utilization of health services. Several studies have recommended younger health care SRH providers because young people are most comfortable getting attended to by people they easily relate with and can discuss sensitive topics like SRH easily. This is because of a perception that young people are less judgmental than older service providers.

In addition, some students are most comfortable discussing issues around their sexuality with persons of the same gender. In support of this recommendation, a study by Godia et al. (2013) suggests that young people in Kenya consider it a barrier when they are attended by older persons. In the same study by Godia et al. (2013) a health care provider notes that he finds it challenging to give condoms to young people, the age of his son, condoms while knowing they are going to engage in extra marital sex. Such attitudes will discourage students from accessing and utilizing SRH services.

ix) Using Technology and Digitalizing SRH Services

Covid19 accelerated adoption of technology by the students and influenced the way they interact, study and access various services. In Kenya, almost all university students have access to either a mobile phone or laptop which they use to attend virtual classes, communicate or access mobile money (Ongek & Onjoro, 2020). The Communications Authority of Kenya (2022) reported that a big number (59 million) of gadgets were connected to mobile networks in Kenya during the period ending the third quarter of 2021. Whereas digital devices have a potential to putt the students at risk of online sex predators who can entice them with money and exploit them sexually, the devices can come in handy in enhancing access to SRH services. SRH services, including counselling, STI treatment, responding to research and information about HIV/AIDS and abortion can be easily accessed and provided through virtual platforms. Students can have conversations with health practitioners and thereafter, linked to the services they need. This approach can be used to address the needs of university students and

enable them to access SRH services as provided in Andersen and Newman Healthcare Utilization Model.

Trigerise, an organization offering SRH commodities and services using mobile phones and digital platforms has reported a big increase in utilization of the services due to its privacy, convenience and enhanced confidentiality (Triggerise, 2022). Organizations offering services using digital platforms can partner with universities and organizations with an interest in the SRH needs of university students to offer the required services. Such services may include: access to SRH commodities, counsellors as well as accurate SRH information. This will to a big extent solve the issue of lack of confidentiality which this study has identified as a key challenge to student's access to SRH services. Digitalization of SRH services will ensure enhanced confidentiality and ultimately lead to increased uptake of SRH services by the student community.

x) Promoting Positive Role Modelling and Mentorship

Role modelling is the use of individuals who have passed through similar experiences and are regarded to have succeeded. Role modelling can include inviting men and women who attended university years ago and now are in different careers with lessons to share with young people in universities. Mentorship is linking two individuals where one of them is looking up to the other, referred to as mentor for guidance in life. Role modelling involves inviting renowned leaders to give talks and advice as well as interact with students. Moreover, mentorship can happen among students where senior students are linked up and are expected to mentor junior fresh students. Nash et al. (2019) emphasizes the importance of role-modelling in assisting girls to keep away

from unplanned pregnancies. ICL (2019) has found mentorship and peer education as crucial in improving SRH outcomes of young people in universities. These strategies can therefore lead to improved SRH outcomes as well as improve SRH service utilization among university students.

xi) Mainstreaming Gender Transformative Approaches in SRH Service Provision and Utilization

Gender is a determinant of SRH service utilization and it influences how people behave in matters around SRH. Society has proscribed a certain way of behaviour for men and women which form part of the social and gender norms. This study has established that more men than women have multiple sexual partners. Sexual debut for most men is also earlier than that of women. Similarly, more men than women are aware of existing SRH policy frameworks. This could be attributed to more men watching news as women undertake domestic work and have less time and interest to watch news and read newspapers on current issues. This calls for gender specific interventions to address the SRH needs of each gender.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of findings, conclusions, and recommendations. In addition, areas for further research are documented in this chapter. The purpose of the study was to investigate the determinants of utilization of sexual and reproductive health services among university students in Nairobi City County, Kenya.

5.1 Summary of Findings

This section contains the key findings of the study. The findings are arranged according to the study objectives. The study was guided by six objectives namely to: identify the SRH concerns, needs and priorities of male and female university students studying in universities in Nairobi City County; examine the association between sexual behaviour, attitudes and university students' (male and female) utilization of SRH services; determine awareness of SRH policy frameworks that impact on the provision and utilization of SRH services among university students (male and female); assess the relationship between SRH policy frameworks and utilization of SRH services in universities in Kenya and identify strategies that could lead to increased awareness and implementation of SRH related policies and utilization of SRH services.

The first objective of the study established the SRH concerns, needs and priorities of young people in universities. The study established that overall university students were most concerned about getting infected with HIV/AIDS, getting pregnant or

impregnating someone, getting infected with STIs other than HIV/AIDS and experiencing sexual violence or being raped in that order. The main variation in the findings was from students who stay in the hostel outside campus who were most concerned about getting pregnant or impregnating someone followed by getting infected with HIV/AIDS. Similarly, the findings indicated variations in terms of concerns across the years of study. First year students are most concerned about getting infected with HIV/AIDS, getting infected with STIs apart from HIV/AIDS, getting pregnant or impregnating someone and lastly experiencing sexual violence. Second year, third year and fourth year students are most concerned about getting pregnant or impregnating someone, getting infected with HIV/AIDS and getting infected with STIs apart from HIV/AIDS in that order.

On the sexual and reproductive health needs of university students, the study found out that most university students need access to condoms, access to pills and injections for pregnancy prevention, youth friendly health facilities, access to a counsellor/psychologist and access to sexual and reproductive health information in that order. Overall, the students who stay in campus have more SRH needs compared to those who reside either at home or hostels out of campus. Furthermore, the study investigated the sexual and reproductive health priorities of university students. The findings indicate that university students prioritize confidentiality the most. This is followed by the cost of services, being attended by friendly healthcare providers, having a wide array of services offered at the same place, the ambience of health facility, time taken to receive services, location of the facility, being served by health personnel of my gender and being attended by young health practitioners.

The second objective of the study examined the association between sexual behaviour, attitudes and university students' utilization of SRH services. The study established that most students in universities are unattached with no steady partners. Only a smaller number of students are attached with a partner, they consider serious. In terms of gender, the findings imply that more female students compared to male students have steady partners. The study also established that a majority of sexually active students begin engaging in sexual intercourse when they are either in high school or in first year in university, aged between 15 and 19 years. Therefore, this is the time interventions to address their sexual and reproductive health should be put in place. Some students, 38 (10.9%) said they had their sexual debut aged 14 years and below. There are also a significant number, 144 (38.9%) of the students who said they have not had any sex. The findings indicate that most students use condoms inconsistently while having sex. A correlation between sexual behaviour and utilization of SRH services indicate a moderate relationship between sexual activity and use of contraceptives. This can be interpreted to mean that sexual behaviour has an influence on utilization of SRH services and in particular contraceptives.

On university student's attitudes and utilization of SRH services, cumulatively, more students (56.3%) exhibited negative attitudes compared to the students (43.7%) who showed positive attitudes towards contraceptive use. Negative attitudes towards contraception could be attributed to the socialization of the students and their cultural and religious believes, affiliations and upbringing which depict sex as wrong and contraceptive use or discussions on it as bad. Students who were Muslims showed most

attitudes towards contraceptive use compared to others belonging to other religious affiliations. In terms of gender, female respondents 39 (10.5%) were more positive compared to male students, 29 (7.8%) that sexually active students should be given contraceptives. A correlation between attitudes towards contraception and utilization of SRH services established no correlation between service utilization and attitudes towards contraception.

The third objective determined awareness of SRH policy frameworks that impact on the provision and utilization of SRH services among university students. Most of the students are not aware of national level policy frameworks that impact the provision and utilization of SRH services. The national level policy frameworks that most students are aware of is the Constitution of Kenya (2010), known by less than one third of the students, followed by the Reproductive Health Policy (2007) and the Family Planning Costed Implementation Plan (2017) in that order. There was however comparatively more awareness of the policy frameworks developed by the universities. The most known SRH related policy framework developed by the university is the HIV/AIDS policy that is known by about two thirds of the students surveyed. A small number of students are aware of the sexual harassment policies. It can be concluded that most of the students are not aware of the various SRH related policy frameworks developed by the universities.

The fourth objective investigated the effect of SHR policy frameworks on utilization of SRH services. Most students noted that awareness of SRH policy frameworks affect the

way they seek and utilize SRH services. The policy actions that influenced the students to access the services are non-discrimination in seeking SRH services, access to free condoms, awareness raising within the university and awareness raising through the media outside the university. However, through cross tabulation, the results indicate no or negligible relationship between awareness of SRH policies and utilization of SRH services.

The fifth objective sought to identify and suggest strategies that would lead to increased awareness and implementation of SRH related policies and utilization of SRH services. The strategies deduced from the study include: timely and structured age appropriate SRH education and awareness of SRH programmes and policies developed by the Universities, County and National governments. The second strategy is integration of SRH with other services to reduce a perception of lack of confidentiality concerns in access to services provided in health facilities. Another strategy is involving students meaningfully in the formulation of SRH policy frameworks at all stages of development to enhance awareness and ownership of the policies. Other strategies are: supporting quantification and forecasting of SRH services and commodities in health facilities frequented by students to reduce shortages, simplifying and disseminating SRH and related policies that have been developed, increasing resources to SRH programs in the universities through partnerships with governments, private sector and civil society organizations, conducting and implementing research recommendations, considering the dynamics of health service providers in aspects including age and sex as well as use of technology and digitalization of SRH services.

5.2. Conclusions

The study concluded that utilization of sexual and reproductive health services by university students is quite low because of limited information on the available SRH services, perceived lack of confidentiality when accessing services and lack of awareness of existing policy frameworks to boost the confidence of the students who want to use the services. The study also established that sexual debut for most sexually active students happens way before students join universities; when they are between the ages of 15-19 years and that most sexually active students have multiple sexual partnerships. Consistent use of contraceptives as one of the SRH services was found to be quite low (less than 50%) among the sexually active students with most of these students not using contraceptives at all during sexual intercourse. Slightly less than a third of the students use contraceptives all the time during sexual intercourse. A correlation between sexual activity and use of contraceptives indicated a moderate relationship between sexual activity and use of contraceptives. Therefore, students' use of contraceptives is partly determined by whether they are sexually active. The study concluded that negative attitudes towards contraceptive use were quite prevalent among university students. However, cross-tabulation results indicated no linkages between attitudes and contraceptive use. Therefore, the students' attitudes did not influence the students' use of contraceptives.

In general, there seems to be a variation in terms of concerns of the university students by the year of study. Most first year students are concerned about getting infected with HIV/AIDS followed by getting pregnant while second, third- and fourth-year students

are most concerned with getting pregnant or impregnating someone followed by getting infected with HIV/AIDS. Utilization of SRH services can also be significantly increased among university students if they are assured of confidentiality in seeking SRH services, reducing the cost of accessing the services, being attended by friendly health care providers and accessing a wide array of SRH services from the same place. In addition, equipping university health facilities with SRH commodities, installing condom dispensers at strategic places accompanied with increased awareness of the services would also lead to improved SRH service utilization.

Moreover, the study concluded that the determinants of utilization of SRH services by university students include confidentiality of the services offered, sexual behaviour of the students and availability and access to SRH services including condoms, pills and injections for pregnancy prevention. Other determinants include implementing policy actions of non-discrimination and affordable costs of services offered.

5.3. Recommendations

To improve the sexual and reproductive health outcomes of university students, the study recommends measures that should be put in place to improve utilization of sexual and reproductive health services. Specifically, the study proposes the following strategies which will lead to improved utilization of SRH services and consequently, better health outcomes.

5.3.1. Recommendations for Objective One: Establishing the Sexual and Reproductive Health Concerns, Needs and Priorities of University Students

a) The government, SRH civil society organizations, the media and universities should provide assurance to young people (male and female) in universities that SRH services provided by the universities, government and private sector are confidential and put measures in place to enhance confidentiality to improve uptake of SRH services. The measures could include integrating SRH with other health related services, and digitalization of SRH services so that young people could use their phones and other gadgets to make inquiries on SRH related information.

b) The private sector, civil society organizations, universities, County and National governments should provide SRH services to students that are geared towards preventing HIV/AIDS infection and pregnancy prevention as these were the greatest concerns of the students. Therefore, condoms, as they offer dual protection against HIV/AIDS and unintended pregnancy when properly used should be made available and accessible in condom dispensers that should be placed in strategic places within the halls of residency and in health facilities within the universities. Condoms also happen to be the most needed contraceptives by the students. In the same breadth, pregnancy prevention pills and injections should be made available in health facilities in the universities and pharmacies around the university for ease of access by the students.

c) There is a need to strengthen community-based child protection mechanisms to safeguard children from abuse and exploitation because a significant number of students reported to have engaged in sex when they were below 14 years of age.

5.3.2 Recommendation for Objective Two: Examining the Association between Sexual Behaviour, Attitude and University Students' (Male and Female) Utilization of SRH Services

a) Secondary schools and government authorities should raise SRH awareness among high school students (male and female) as a majority are aged between 15-19 years, when they engage in their first sexual debut to avert any negative SRH outcomes from a younger age. Therefore, implementation of comprehensive sexuality education would come in handy in addressing the sexual concerns of the students while in high school.
b) Institutions with a mandate and interest in educating students about SRH issues should include programs on gender, social norms and attitude change to positively influence the perception of students (male and female) in SRH matters.

5.3.3 Recommendation for Objective Three: Determining Awareness of SRH Policy Frameworks that Impact on the Provision and Utilization of SRH Services among University Students

a) The Constitution of Kenya (2010), encourages public participation in the policy making processes. Therefore, National and County governments and universities should deliberately involve male and female students through all the stages of

development, dissemination and implementation of SRH policy frameworks to increase awareness of the policies and to reduce self-stigma while seeking SRH services as well as to increase their confidence that they are accessing the services within the law.

5.3.4. Recommendation for Objective Four: Examining the Effect of SRH Policy Frameworks on Utilization of SRH Services in Universities in Kenya

a) The government, University based service providers and universities should substantially subsidize the cost for accessing SRH services to make them more accessible by male and female students to increase uptake of services.

5.3.5. Recommendations for Objective Five: Identifying Strategies that will Lead to Increased Awareness and Implementation of SRH Related Policies and Utilization of SRH Services

a) As a means of resourcing the policy frameworks developed by the government and the various universities, SRH policy frameworks should be costed and budgets allocated towards enhancing confidentiality, discounting the SRH services, training healthcare providers on provision of youth friendly services, purchasing and distributing condoms and equipping health facilities within the university with family planning commodities.

b) The National government and Universities in general should mainstream gender transformative approaches during the development, implementation, and review of SRH policy frameworks. The policy frameworks should explicitly consider the gender specific challenges of girls, boys, men and women in access to SRH

services and suggest gender specific strategies for increasing access sexual and reproductive health services.

5.4 Suggestions for Further Research

Based on the study focus and related findings, the following are suggestions for further research

1. The contribution of the private sector in increasing uptake of SRH services among young people in Kenya.
2. Determinants of sexual debut of secondary school students in Kenya

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APPENDIX 1: WORK PLAN

	Activity	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.	Develop and present concept note	X	X										
2.	Review literature for proposal		X	X									
3.	Develop study tools			X									
4.	Develop and present proposal			X									
5.	Incorporate comments on the proposal				X								
6.	Apply for the research permits/approvals and get clearance to collect data					X							
7.	Develop a sampling frame; pilot the study tools and collect data					X	X						
8.	Clean the data and analyse the collected data							X	X				
9.	Compile the first draft report and present preliminary findings									X	X		
10.	Correction of the first draft and presentation of the second draft										X	X	
11.	Incorporate feedback and submit the final report												X

APPENDIX 2: BUDGET

Deliverable	Activity Description	Unit	Unit Cost (in KES)	Quantity/days	# of pax	Total Cost (in KES)
Develop and present concept note	Costs include internet charges, printing and binding	Days	300	30	1	9,000
Review literature for proposal and develop study tools	Costs include transport to library meeting and internet costs	Days	600	10	1	6,000
Develop and present proposal	Transport to present proposal and binding costs	Lump sum	2,000	3	1	6,000
Package for submission for ethical approval	Print and bind several copies for submission for ethical approval	Lump sum	2,000	1	1	2,000
Get ethical approval clearance from KU	Application for ethical clearance from KU	Lump sum	5,000	1	1	5,000
Get clearance to collect data	Application fee for NACOSTI clearance	Lump sum	2000	1	1	2000
Train Research Assistants	Training of two research assistants	Per person	1000	1	2	2000
Collect data	Pay for the research assistants	Per person	1000	10	2	20,000
Data collection platforms (software) and calling costs	Subscribe to Survey monkey and provide internet and phone call fee to the Ras	One off subscription	20,000	1	1	20,000
Analyse the collected data	Enter data into software and analyse	Per person	1000	10	2	20,000
Compile the report	Transport and internet	Per month	2000	4	1	8,000
Publication	Publish the report in a journal					10,000
Contingencies 5%	Contingencies for emergencies/					5,500
Total						**115,500**

APPENDIX 3: INFORMED CONSENT FORM

Consent to participate in research

My name is Joshua Ongwae, a PHD student in the department of Sociology, Gender and Development Studies in Kenyatta University. I am conducting a study titled 'the determinants of utilization of sexual and reproductive health services among university students, Nairobi City County, Kenya.' The study will be undertaken in Kenyatta University (KU), KCA University (KCA-U), Multimedia University of Kenya (MMU) and United States International University (USIU). The purpose of the study is to assist to put in place measures that will lead to improved SRH policies that will lead to improved wellbeing of university students through enhanced utilization of SRH services.

Procedure to be followed

Participation in this study will require you complete the questionnaire. Your participation in this study is voluntary. Please read the information below and ask questions through the provided email about anything you do not understand, before deciding whether to participate.

Discomforts and risks

Some of the questions you will be asked are on an intimate subject and may be embarrassing or make you uncomfortable. If this happens, you may refuse to answer these questions if you so choose. You may also stop the interview at any time.

Benefits

If you participate in this study, you will help us to learn how to provide effective services that can improve on the sexual and reproductive health of students. You will also benefit by knowing more about reproductive health services that are available within the universities.

Reward

If you agree to participate in this study, there will be no financial reward for participating in the study.

Confidentiality

Your name will not be recorded anywhere in this study. Any information that is obtained in connection with this study will remain confidential and will be disclosed only with your permission or as required by law.

Contact information

If you have any questions about the study, you may contact Joshua Ongwae at jomusa2000@yahoo.com or through mobile telephone number 0731973788.

However, if you have questions about your rights as a study participant: You may contact Kenyatta University Ethical Review Committee Secretariat on chairman.kuerc@ku.ac.ke,

Participant's statement

The above information regarding my participation in the study is clear to me. By proceeding, I agree to participate in the study voluntarily. I understand that my records/ responses and identity will be treated with confidentiality and that I can leave the study at any time without any penalty.

_____ _____

Signature of participant *Date*

Investigators statement

I, the undersigned have explained to the volunteer in a language s/he understands, the procedures to be followed in this study and the risks and benefits involved.

Name of researcher …….

_____ _____

Signature of researcher *Date*

APPENDIX 4: INTRODUCTION LETTER
QUESTIONNAIRE ON SEXUAL AND REPRODUCTIVE HEALTH OF UNIVERSITY STUDENTS STUDYING IN NAIROBI COUNTY, KENYA

SELF ADMINISTERED QUESTIONNAIRE INFORMATION FORM

Dear Participant

My name is Joshua Ongwae, a PHD student in Kenyatta University.

I am undertaking a research on 'the determinants of utilization of sexual and reproductive health services among university students, Nairobi City County, Kenya.' The study will be undertaken in Kenyatta University, KCA-U, Multi-Media University (MMU) and United States International University (USIU).

I am inviting you to participate in the research because of the valuable contribution you can make in terms of understanding the SRH needs of university students to enable universities to formulate the right policies and strategies to promote SRH of the students.

In the study, you will be asked to complete a self-administered questionnaire. The activity should take not more than forty-five minutes of your valuable time. To ensure anonymity you will not put your name or identity number on the questionnaire and there will be no attempt to link your name with any of the responses received from participants. You will not incur any costs because of your participation.

Your participation is voluntary. If at any time during the interview, you wish to withdraw your participation you are free to do so without prejudice

If you have any question prior to your participation, or at any other time during the study, please, do not hesitate to contact the researcher.

I appreciate your participation in this study, as I understand the time-constraints. If you have any questions about the study itself, please contact me.

Thank you.

Sincerely

Joshua Omusa Ongwae
Kenyatta University
Tel: +254 731973788

APPENDIX 5: QUESTIONNAIRE

Please check the appropriate box (es)

001 Gender	002 Age	003 Year of Study	004 Study level	005 Study Discipline	006 Module
1. Male ☐ 2. Female ☐ 3. Other ☐	1.Below 17yrs ☐ 2. 18-20 yrs☐ 3. 21-23 yrs☐ 4.24-25 yrs☐ 5. 25 + ☐	1.Year 1 ☐ 2. Year 2 ☐ 3. Year 3 ☐ 4. Year 4 ☐ 5. Year 5 ☐ 6. Year 6 ☐ 7.Other (Specify) _____	1. Certificate ☐ 2. Diploma ☐ 3. Undergraduate ☐ 4. Post graduate ☐ 5. Other (specify _____	1.Science ☐ 2. Arts ☐ 3. Technology ☐ 4. Other (specify) ____ _____	1. Self-Sponsored ☐ 2. Government Sponsored ☐ 3. Under-Scholarship ☐ 4. Other (Specify) _____
007.Mode of Study	**008. Residency**	**009.Partnership**	**010 Religion**	**011. Marital status**	**012.Income status**
1.Flexible/Part-time ☐ 2.Full time ☐ 3. Any other (Specify)	1. In campus ☐ 2. Home ☐ 3.Hostel out of Campus ☐	1.Stay with fellow students ☐ 2. Stay with non-students (not family) ☐ 3. Stay alone ☐ 4. Stay with family ☐	1. Protestant ☐ 2. Catholic ☐ 3. Adventists ☐ 4. Muslim ☐ 5. Others (specify) _____	1.Single ☐ 2.Officially married☐ 3.Cohabiting ☐ 4.Divorced ☐ 5.Separated☐ 6.Widowed ☐ 7.Other (specify _____	1. I have a job earn my money☐ 2. I rely on my parents for upkeep ☐ 3. I rely on HELB funds for upkeep ☐ 4. I rely on well-wishers for upkeep☐ 5. Other (Specify) _____

Understanding the Sexual and Reproductive Health concerns, needs and priorities of University students

Please check the appropriate box (es)

13. How important is religion in your life?
    a. Very important ☐
    b. Important ☐
    c. Not important ☐

14. Do you have a partner?
    a.) Yes

b.) No

15. If yes, how would you describe your sexual relationship status with the partner (s)?
    a. Committed relationship with one sexual partner ☐
    b. In a casual sexual relationship with one partner (not serious) ☐
    c. With multiple sexual relations ☐
    d. Not in any sexual relationship (abstaining from sex) ☐

16. How old were you when you had sexual intercourse for the very first time?
    a.) I have never had sex ☐
    b.) Below 10 years ☐
    c.) Between 11 and 14 ☐
    d.) Between 15-19 ☐
    e.) Between 20-24 ☐
    f.) Between 25 -30 ☐
    g.) Any other. Specify ☐

17. How old was the person you had sex with for the first time?
    a. I have never had sex ☐
    b. Below 10 years ☐
    c. Between 11 and 14 ☐
    d. Between 15-19 ☐
    e. Between 20-24 ☐
    f. Between 24- 30 ☐
    g. Between 31-40 ☐
    h. Any other. Specify ☐

18. Were you attending your current university when you first had sex?
    a.) Yes ☐
    b.) No ☐
    c.) Any other. Specify ☐

19. In the last 12 months, have you had sexual intercourse?
    a. Yes
    b. No

20. If yes above, with how many people have you had sexual intercourse with in the last 12 months?
    a.) One ☐
    b.) Two ☐
    c.) Three ☐
    d.) Four ☐
    e.) Five ☐

f.) Any other. Specify ☐

21. What is your sexual orientation?
    a. Heterosexual ☐
    b. Homosexual ☐
    c. Any other. Specify ☐

22. Do you use contraceptives when you have sex with your partner (s)?
    a.) Yes, all the time ☐
    b.) Sometimes ☐
    c.) No ☐
    d.) Not applicable ☐

23. If yes above, what contraceptives did you use?
    a.) Condoms ☐
    b.) Injections or pills ☐
    c.) Withdrawal method ☐
    d.) Long Acting & Reversible Contraceptives (implant, coil etc) ☐
    e.) None ☐
    f.) Any other. Specify ☐

24. Where did you get the contraceptives mentioned above?
    a.) University health facility ☐
    b.) Pharmacy outside of the university ☐
    c.) Pharmacy near where I live ☐
    d.) Public health facility (out of the university) ☐
    e.) I did not access any contraceptives ☐
    f.) Condom dispenser in the university ☐
    g.) Any other. Specify ☐

25. In the last 12 months, have you ever given or received money, gifts or favours in exchange for sex?
    a. Yes ☐
    b. No ☐

26. Which drugs and substances have you used in the past 12 months?
    a. Alcohol ☐
    b. Tobacco ☐
    c. Marijuana ☐
    d. I have not used any drug ☐
    e. Any other. Specify ☐

27. During the last 12 months, have you ever had a disease you got through sexual contact?
    a.) Yes ☐
    b.) No ☐

28. If you have been infected with a sexually transmitted disease, where did you go for treatment?
    a. University health facility ☐
    b. Health facility near my home ☐
    c. Pharmacy outside of the university ☐
    d. Public health facility out of the university ☐
    e. I did not go for treatment ☐
    f. Any other. Specify ☐

29. Has anyone ever forced you in any way to have sexual intercourse or to perform any other sexual acts when you did not want to?
    a.) Yes ☐
    b.) No ☐

30. If yes above, what action did you take?
    a.) Had sex/performed sexual act and kept quiet about it ☐
    b.) Had sex/performed sexual act and reported the matter ☐
    c.) Refused to have sex/perform sexual act and kept quiet about it ☐
    d.) Refused to have sex/perform sexual act and reported the matter ☐
    e.) Any other. Specify ☐

31. When seeking Sexual and Reproductive Health services, what do you consider as important?

	Not at all important	Slightly Important	Moderately important	Important	Very Important
Location of the facility					
Friendly health service providers					
The ambience of the health facility					
A wide array of services offered at the same place					

The cost of the services					
Being served by health personnel of my gender					
Being attended by young health practitioners					
Time taken to receive the services					
Confidentiality of the services offered					

32. What sexual and reproductive health issue or concern worries you the most? (kindly tick one)
    a.) Getting pregnant or impregnating someone ☐
    b.) Getting infected with HIV ☐
    c.) Getting infected with STIs apart from HIV ☐
    d.) Experiencing sexual violence/rape ☐
    e.) Any other. Specify ☐

33. What sexual and reproductive health services do you need the most? (kindly tick your most important two)
    a.) Access to condoms ☐
    b.) Access to pills and injections for pregnancy prevention ☐
    c.) Youth friendly health facility ☐
    d.) Access to a counsellor/ psychologist ☐
    e.) SRH information/education ☐
    f.) Any other. Specify ☐

34. Which facility have you visited over the last 12 months to receive any sexual and reproductive health services or information on contraception, pregnancy, abortion or sexually transmitted diseases?
    a.) University health facility ☐
    b.) Pharmacy outside of the university ☐
    c.) Public health facility out of the university ☐
    d.) Health facility in my home area ☐
    e.) I did not go for treatment ☐
    f.) Any other. Specify ☐

35. Which services did you utilize from the program/place mentioned above?

a.) Condoms ☐
b.) Pill & injections for pregnancy prevention ☐
c.) HIV screening ☐
d.) Gynaecological exam ☐
e.) General knowledge on SRH ☐
f.) Pregnancy termination ☐
g.) STD treatment or information ☐
h.) Counselling ☐
i.) Treatment after sexual violence and rape ☐
j.) I did not get the services I went to seek ☐
i.) Any other. Specify ☐

36. What did you like most in the health facility mentioned above?
    a. Quick services were provided ☐
    b. The service providers were friendly ☐
    c. The services were affordable ☐
    d. Confidentiality was maintained ☐
    e. The facility was accessible ☐
    f. Any other. Specify ☐

37. What did you dislike most in your last visit when you went to seek the services mentioned above?
    a. Unfriendly health care providers ☐
    b. Judgmental health care providers ☐
    c. Lack of the required services ☐
    d. Exorbitant cost of services ☐
    e. A feeling of lack of confidentiality ☐
    f. Long time taken waiting for the services ☐
    g. Any other. Specify ☐

38. What is your attitudes towards contraception? Tick all that apply
    a. Contraceptive use is good and should be promoted ☐
    b. It is immoral to use contraceptives ☐
    c. I get ashamed while seeking contraceptives ☐
    d. A girl or boy who is not married should not use contraceptives ☐
    e. Young people should be given information about contraception ☐
    f. Young people who are sexually active should have access to contraceptives ☐

g. Any other. Specify
☐

39. What challenges do you face while seeking SRH services?
    a) Poor location of health facilities ☐
    b) Non-friendly health service providers ☐
    c) Unavailability of sexual and reproductive health services ☐
    d) High cost of the SRH services ☐
    e) The long time it takes to receive the services ☐
    f) Lack of confidentiality of the services offered ☐
    g) Long distances to health facilities ☐

40. How have you addressed the challenges mentioned above?

41. In your opinion, what challenges does your institution face in delivering the sexual and reproductive health services?

42. How can you or your institution overcome the challenges mentioned above?

Determining awareness of SRH policy frameworks that influence provision and utilization of SRH services among university students

Please check the appropriate box (es)

43. Which of the following national sexual and reproductive health (SRH) related policies are you aware of? (Tick all that apply)
    a.) The Constitution of Kenya (2010)
    ☐
    b.) The National Reproductive Health Policy, 2007
    ☐
    c.) National Family Planning Costed Implementation Plan, 2017
    ☐
    d.) National Adolescent Sexual Reproductive Health policy, 2015
    ☐
    e.) National Guidelines for Provision of Adolescents &Youth Friendly Services, 2016 ☐
    a.) Kenya Health Policy (2012-2030)
    ☐
    b.) HIV/AIDS policy
    ☐
    c.) Any other. Please specify
    ☐

44. Are you aware of any sexual and reproductive health related policies developed by the university? (kindly mention all that apply)
    a) The University HIV/AIDS Policy ☐
    b) The University's SRH Policy ☐
    c) Sexual harassment policy ☐
    d) Any other. Please specify ☐
    e) I am not aware of any policy ☐

45. The Reproductive Health Policy 2007 provides for (Kindly tick all that apply)
    a. Access to reproductive health information, counselling and services for youth and adolescents ☐
    b. Establishment of high-quality, comprehensive and integrated youth-friendly reproductive health services ☐
    c. Punishment of health facilities providing youth friendly services ☐
    d. The promotion of male involvement in the reproductive health programme ☐
    e. The promotion of empowerment of women in reproductive health decision-making ☐
    f. I do not know anything about it ☐

46. What are the standards of quality in the delivery of services for adolescents and youth provided in the National Guidelines for Provision of Adolescents & Youth Friendly Services, 2016? Tick all that apply.
    a. Implementation of systems to ensure that adolescents and youth are knowledgeable about their own health ☐
    b. Stakeholders support provision and the utilization of services by adolescents and youth☐
    c. Health care providers maintain the rights to information, privacy, confidentiality, non-discrimination, and non-judgemental attitude☐
    d. Adolescents and youth should not be involved in the planning, monitoring and evaluation of health services that concern them ☐
    e. I do not know anything about it ☐

47. The essential package for adolescent and youth friendly service provision has been identified in the National Guidelines for Provision of Adolescents & Youth Friendly Services, 2016 to include? Tick all that apply.
    a. Counselling on Sexual Reproductive Health, including sexuality ☐
    b. Pregnancy testing ☐

c. Sexually Transmitted Infections (STIs) Counselling, Screening and Treatment ☐
d. Punishment for Post Abortion Care ☐
e. Screening services e.g. breast, cervical cancer screening ☐
f. I do not know anything about it

48. How did you get to know about the SRH related policies mentioned above?
a.) First year orientation ☐
b.) Through a friend/peer ☐
c.) Seminar organized by or within the university ☐
d.) Seminar organized by an entity outside the university ☐
e.) Program brochures or posters ☐
f.) Mainstream and social media (TV, radio, newspaper) ☐
g.) Any other way specify ☐
h.) I do not know any SRH policies ☐

49. Which of the following statements are <u>true</u>? (Tick all that apply)

a.) It is illegal for a young person or student to seek contraception from health facilities ☐
b.) Talking about sex with peers is wrong ☐
c.) Abortion is illegal in Kenya ☐
d.) Abortion is accepted under some circumstances ☐
e.) Young people have a right to be provided with the sexual and reproductive health services they need ☐
f.) Parental consent is required for young ☐

To examine the effect of SRH policy frameworks on utilization of SRH services in universities in Kenya

Please check the appropriate box (es)

50. Does your awareness of availability of SRH policy framework affect the way you seek and utilize SRH services?
a.) Yes ☐
b.) No ☐

51. Which policy influenced you to access sexual and reproductive health services?
a. Non-discrimination in seeking SRH services ☐
b. Awareness raising within the university ☐
c. Access to free condoms ☐
d. Awareness through the media/or outside the university ☐
e. Availability of youth friendly services ☐

f. I have not accessed any services ☐
g. Any other. Specify ☐

45. What is the effect of SRH policy frameworks on your utilization of SRH services?

a.) Provides the legal framework to enable me access SRH services
☐
b.) Enables me to demand for SRH services
☐
c.) There is no effect at all on my utilization of services
☐
d.) They reduce discrimination
☐
e.) It enables us to organize and participate in SRH related events within the university ☐
f.) Any other. Specify

52. Which of the following statements are true? Please tick all that apply

a. The university has allocated enough resources for SRH service provision and programs
☐
b. The university has put in place sufficient human resource to address SRH needs of the students
☐
c. The policies developed by the universities are relevant
☐
d. The SRH policies in place have considered an element of gender in their development
☐
e. I am aware of the SRH policies developed by the university
☐

53. What suggestions do you have on improving SRH services and policies and implementation of SRH policies in your universities?

54. Please provide any additional comments relevant to this study.

APPENDIX 6: KEY INFORMANT INTERVIEW GUIDE

KEY INFORMANT INTERVIEW GUIDE ON SEXUAL AND REPRODUCTIVE HEALTH OF UNIVERSITY STUDENTS STUDYING IN NAIROBI CITY COUNTY

KEY INFORMANT INTERVIEW GUIDE

Dear Participant

I am Joshua Ongwae, a PHD student in Kenyatta University.

I am undertaking a research on 'the determinants of utilization of sexual and reproductive health services among university students, Nairobi City County, Kenya. .' The study will be undertaken in KU, USIU, KCA-U and MMU.

I am inviting you to participate in the research because of the valuable contribution you can make in terms of understanding the SRH needs of university students to enable universities to formulate right policies and strategies to promote SRH of the students.

In the study you will be asked questions regarding SRH needs of the students. The activity should take not more than forty-five minutes of your valuable time. You will not incur any costs as a result of your participation.

Your participation is voluntary. If at any time during the interview you wish to withdraw your participation you are free to do so without prejudice

If you have any question prior to your participation, or at any other time during the study, please, do not hesitate to contact the researcher.

I appreciate your participation in this study, as I understand the time-constraints you are working under. If you have any questions about the study itself, please contact me.

Thank you.

Sincerely

Joshua Omusa Ongwae
Kenyatta University
Tel: +254 729 854 530

Key Informant Interview: Dean, AIDS Control Unit Head, Student Leader, Hostel wardens

1. In your opinion what are the sexual behaviours of university students? (e.g. multiple sexual partners etc)?

2. In your opinion, what are the greatest concerns of university students as pertaining to sexual reproductive health?

3. Are you aware about the level of utilization of the SRH services in health facilities by the students? Is utilization high, medium or low? If you have information, what services are most sought and from where?

4. Are there SRH services provided within the university? Please list the services provided

5. Are there health facilities available within the university? If yes, please name them

6. What do you consider as the sexual and reproductive health needs and priorities of university students?

7. Are you aware of any SRH related policies at national, regional or global level that may have an impact on university students 'utilization of SRHR services? Could you please highlight on the ones you are aware of? Do you know if the students have been made aware of the policies?

8. Are you aware of any SRH related policies developed/adapted by the university? Do you know if the students have been made aware of the policies? What platforms have been used? Please list the SRH policies

9. How were you involved in the SRH policy formulation process? And how were the students involved in the formulation of the policies?

10. What is your role in the implementation of the SRH related policies you have highlighted above? What role do students have in the implementation of the policies?

11. In your opinion, have sufficient resources (including funds and human resource) been allocated for the implementation of the SRH policies?

12. What do you consider as the greatest barriers to SRH policy implementation in this university?

13. How do you propose to address the challenges/barriers you have mentioned above?

14. Are there programs in place to support the dissemination of SRH policies and information within the university?

15. What is your opinion on the students' knowledge of the SRH policies in place and utilization of SRH services?

16. Do you have any ideas about how to improve the utilization of health facilities in relation to SRH by the students?

17. Do you have any ideas about how to improve the development and implementation of the SRH policies?

18. Is there anything more you would like to add?

Key informant interview: Health service providers working in health facilities within the university and around the university premises)

1. In your opinion what are the sexual behaviors of university students? (e.g. multiple sexual partners etc)?

2. In your opinion, what are the greatest concerns of university students as pertaining to sexual reproductive health?

3. Are there other SRH services provided within the university? Please list the services provided

4. Are there health facilities available within the university? What about in the surroundings of the university? If yes, please name them

5. What SRH services do you offer in your health facility? Which SRH services have been most in demand (most sought) by the students? (please describe frequency)

6. Are there services that have been sought and they are not available?

7. What do you consider as the sexual and reproductive health needs and priorities of university students?

8. In your opinion what challenges do students face in accessing and utilizing your health facility?

9. What proposals do you have to address the challenges you have mentioned above?

10. What training (both pre- and in-service training) have you received as a service provider in the provision of SRH services to young people? What training would you prefer to be provided to enhance your ability to provide SRH services to young people (youth friendly services)?

11. Are you aware of any SRH related policies at national, regional or global level that may have an impact on university students 'utilization of SRHR services? Could you please highlight on the ones you are aware of? Do you know if the students are aware or have been made aware of the policies?

12. Are you aware of any SRH related policies developed/adapted by the university? Do you know if the students have been made aware of the policies? What platforms have been used? Please list the SRH policies

13. How were you involved in the SRH policy formulation process? And how were the students involved in the formulation of the policies?

14. What is your role in the implementation of the SRH related policies you have highlighted above? What role do students have in the implementation of the policies?

15. Have you ever been involved in the formulation of SRH policies? If yes, how?

16. What is your role in the implementation of the SRH related policies? And what do you think is the role of the students in the implementation of the policies?

17. In your opinion, have sufficient resources (including funds and human resource) been allocated for the implementation of the SRH policies?

18. Are there programs in place to support the dissemination of SRH policies and information within the university? And among young people in this area (catchment of your health facility)

19. What is your opinion on the students' knowledge of the SRH policies in place and utilization of SRH services? Are they aware of their rights?

20. What do you consider as the greatest barriers to SRH policy implementation in this university?

21. How do you propose to address the challenges/barriers you have mentioned above?

22. Do you have any ideas about how to improve the utilization of health facilities in relation to SRH by the students?

23. Do you have any ideas about how to improve the formulation, dissemination and implementation of SRH policies? Please provide your proposals?

24. Is there anything more you would like to add?

APPENDIX 7: FGD GUIDE

FGD GUIDE ON SEXUAL AND REPRODUCTIVE HEALTH OF UNIVERSITY STUDENTS STUDYING IN NAIROBI CITY COUNTY

FGD Guide: University students

1. In your opinion what are the sexual behaviours of university students? (e,g. multiple sexual partners etc)?

2. In your opinion, what are the greatest concerns of university students as pertaining to sexual reproductive health?

3. What do you consider as the sexual and reproductive health needs and priorities of university students?

4. What measures has the university put in place to promote the SRH of students and to address the student's SRH needs and concerns mentioned above? Are there SRH services provided within or around the university? Please list the services provided

5. What factors can encourage students to seek health services from health facilities. (Friendly health care providers, location of the health facilities, awareness raising of the services etc.) Please list them

6. Where do students prefer to access the SRH services from? From which health facilities? Those within the university or outside the university? Pharmacies, private or public health facilities?

7. Are you aware of any national and global level SRH related policies in support of provision of SRH services to young people? Kindly list them

8. Are you aware of any SRH related policies developed/adapted by the university? Kindly list them

9. How are you involved in SRH policy formulation, dissemination and implementation process at the national, sub-national and university level?

10. Are there programs in place to support the dissemination of SRH policies within the university? Kindly list them

11. What are the standards of quality in the delivery of services for adolescents and youth provided in the national government policy frameworks?

12. What SRH policy frameworks have most influenced university students to utilize SRH services? (Is it awareness raising, youth friendly service provision, non-discrimination?) What is the effect of SRH policy frameworks on your utilization of SRH services?

13. What do you consider as the greatest challenges/barriers to SRH policy formulation and implementation in this university?

14. How do you propose to address the challenges/barriers you have mentioned above?

15. Are there programs in place to support the dissemination of SRH policies and information within the university? What is your opinion on the students' knowledge of the SRH policies in place and utilization of SRH services?

16. Do you have any ideas about how to improve the utilization of health facilities in relation to SRH by the students?

17. Do you have any ideas about how to improve the development, implementation and dissemination of SRH policies?

18. Is there anything more you would like to add?

APPENDIX 8: RESEARCH AUTHORIZATION LETTER-NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **425180**

Date of Issue: **06/November/2020**

RESEARCH LICENSE

This is to Certify that Mr.. Joshua Omusa Ongwae of Kenyatta University, has been licensed to conduct research in Nairobi on the topic: THE IMPACT OF POLICY, SEXUAL BEHAVIOUR AND ATTITUDES ON UNIVERSITY STUDENTS' UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES, NAIROBI COUNTY, KENYA for the period ending : 06/November/2021.

License No: **BAHAMAS ABS/P/20/7488**

425180

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

APPENDIX 9: RESEARCH AUTHORIZATION – KENYATTA UNIVERSITY

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 020-8704150

Our Ref: C82/38181/2017

DATE: 1st September, 2020

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MR. JOSHUA ONGWAE – REG. NO. C82/38181/17

I write to introduce Mr. Joshua Ongwae who is a Postgraduate Student of this University. He is registered for Ph.D. degree programme in the **Department of Sociology, Gender & Development Studies.**

Mr. Ongwae intends to conduct research for a Ph.D. thesis Proposal entitled, **"The Impact of Policy, Sexual Behaviour and Attitudes on University Students' Utilization of Sexual and Reproductive Health Services, Nairobi County, Kenya."**

Any assistance given will be highly appreciated.

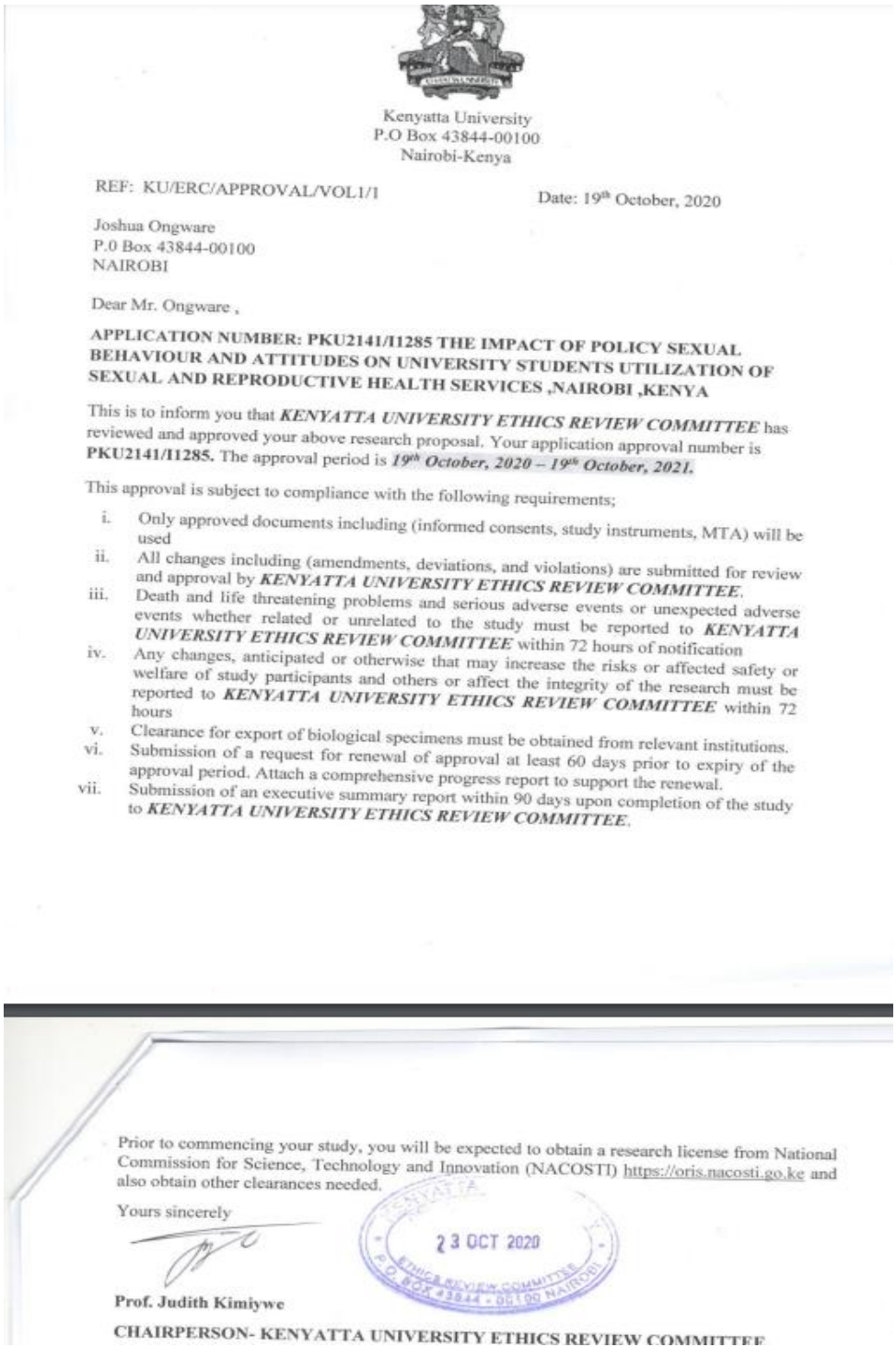
Yours faithfully,

for

PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

KENYATTA UNIVERSITY
OFFICE OF DEAN
10 SEP 2020
GRADUATE SCHOOL
BOX 43844-00100 NAIROBI

APPENDIX 10: ETHICS REVIEW COMMITTEE



Kenyatta University
P.O Box 43844-00100
Nairobi-Kenya

REF: KU/ERC/APPROVAL/VOL1/1 Date: 19th October, 2020

Joshua Ongware
P.0 Box 43844-00100
NAIROBI

Dear Mr. Ongware ,

APPLICATION NUMBER: PKU2141/I1285 THE IMPACT OF POLICY SEXUAL BEHAVIOUR AND ATTITUDES ON UNIVERSITY STUDENTS UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES ,NAIROBI ,KENYA

This is to inform you that ***KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE*** has reviewed and approved your above research proposal. Your application approval number is **PKU2141/I1285.** The approval period is ***19th October, 2020 – 19th October, 2021.***

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE.***
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to ***KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE*** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE*** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to ***KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE.***

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

Yours sincerely

23 OCT 2020

Prof. Judith Kimiywe

CHAIRPERSON- KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE