ASSESSMENT OF FACTORS INFLUENCING UTILIZATION OF YOUTH-FRIENDLY REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENTS AND YOUTH IN SAMBURU COUNTY, KENYA

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A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE IN EPIDEMIOLOGY AND DISEASE CONTROL OF

MOUNT KENYA UNIVERSITY.

SEPTEMBER 2023

DECLARATION

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

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Dedication

This thesis is dedicated to my parents for their support and abundant prayers and enormous motivation

ACKNOWLEDGEMENT

I would like first of all to thank God. I'm so thankful to my whole schoolmates from the January 2017 admission, Virtual Program, for their material assistance during the hour of the speculative coursework and their co-action during consultative get-togethers during the Research Proposal subject decision and improvement. My gratitude feelings are addressed to my Supervisors, Dr. Joseph Juma, Dr. Dominic Mogere of Mount Kenya University for their helpful help, consolation, and backing toward the accomplishment of my thesis, particularly in research methodology.

LIST OF ACRONYMS AND SHORTENINGS

AIDs	Acquired Immunodeiceicuny Disease Syndrome.
ANC	Anti Natal Care
FHI	Family Health International
GST	General Systems Theory
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
IEC	Information Education Communication
KDHS	Kenya Demographic and HealthSurvey
KNBS	Kenya National Bureau of Statistics
MoH	Ministry of Health
NGO	Non-Governmental Organization
PATH	Program for Appropriate Technology in Health
PNC	Pre-Natal Care
RH	Reproductive Health
RHS	Reproductive Health Services
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TPB	Theory of Planned Behavior

VCT Voluntary Counselling and Testing

WHO World Health Organization

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ABSTRACT

Reproductive health continues to be a worldwide priority because of the gap and challenges that exist in the status of youth's health between developed and developing countries. The underutilization of reproductive health care services by youth put them at risk in Kenya. Utilization of these services requires voluntary participation; however, there could be a the number of factors that make the youth most likely not to utilize reproductive health care services and this study seeks to pinpoint the reasons for this trend. The main objective of the study was to assess factors affecting the scaling-up utilization of reproductive health services among adolescents & youth in pastoral in Samburu County, Kenya. Qualitative and quantitative approaches to data collection were used. An analytical cross-sectional study technique was employed as qualitative and quantitative methods of data gathering. A sample size of 252 study respondents was produced using the Fischer formula. Purposive, systematic, and simple random sampling were employed to collect quantitative data, while purposive sampling was applied to select the KII & focused group discussion participants. SPSS version 26 was used to examine quantitative data while thematic analysis was used to examine qualitative data. Both Bivariate and binary logistic regression analyses were used to assess the degree of relationship between independent and dependent variables. In this study, the utilization of youth-friendly reproductive health services was 40.6%. VCT was the most(96.8%) utilized youth-friendly reproductive health service. The presence of an RH facility, having visited an RH facility, being aware of RH problems, having good knowledge, the presence of religious influence and community mobilization campaign increased the odds of utilizing youth-friendly reproductive health services while healthcare providers' bad attitude and lack of privacy, the presence of peer pressure, and Being male and single in the marital status category reduced the odds of utilizing youth-friendly reproductive health services. Findings from this study informed the concerned stakeholders in the concerned community on the best strategies to be implemented to enhance and improve the uptake of youth-friendly reproductive healthcare services ultimately led to a healthier population.

CHAPTER ONE

1.0: Introduction

This section outlines the study's background, problem statement, objectives, study questions, implication, and rationale of the research.

1.1: Study Background

The World Healthiness Organization (WHO) defines young people as those who are 10 to 24 years old, but the terms young people and youth (15 to 24 years old) are frequently used interchangeably to refer to young people (Mbadu Muanda et al., 2018). Youth, who make up 25% of the global populace, is classified as a period of maximum health with several biological, mental, and societal changes that could expose them to hazardous sensual actions, such as early sexual activity participation, sex that is unsafe, and having sex several partners (Binu et al., 2018; Odo et al., 2018). Despite a clear need for these services and they are urgently needed, the sensual and reproductive health (SRH) needs of adolescents and youth are often neglected and underappreciated in many African nations (Geary et al., 2014). With 1.2 billion people on the continent, youth aged 15 to 24 make up the majority, with 226 million of them living in sub-Saharan Africa, which accounts for 19% of the global youth populace (Mazur et al., 2018).

The world load of sexual ill-health includes SRH in significant measure. In the world, around 16 million teenagers deliver each year, with 95% of them coming from upcoming nations. Nearly a quarter of girls between the ages of 15 and 19 are married (LMICs) (Sogarwal et al., 2013). Trends in an increased rate of un-marriages do not point to a reduction in the age at which young people first engage in sexual activity; instead, there is a need to improve better access to SRH knowledge, services, and skills so that people can learn more about sexuality, avoid unintended pregnancies,

and stop sexually transmitted diseases (Braeken & Rondinelli, 2012). Elevated youth fertility rates in SSA are influenced by several factors including lack of information about SRH, limited admittance to and use of birth control devices, condoms, and SRHS, gender disparity, and cultural customs like teenager matrimonial and initiation rites (Kennedy et al., 2013).

Adolescents in sub-Saharan Africa confront numerous severe SRH encounters, Which include restricted access to youth-friendly amenities (YFS), which include info on development, hazardous abortion, GBV, and intimate planning (FP). This has driven young people to engage in hazardous sexual behavior, which has increased the prevalence of STIs and HIV in young people as well as their susceptibility to early pregnancy and delivery difficulties that have high mortality and disability rates (Sogarwal et al., 2013). The majority of young men and females surveyed in LMICs said they used condoms for their most recent sexual activity, according to several polls. Only 33% of young males and 20% of young females in these countries have a thorough awareness of HIV (Kennedy et al., 2013). Only 10% of young males and 15% of young females were attentive to their status concerning HIV, which presents a significant obstacle to ensuring optimal reproductive health and wellness for all, according to UNAIDS' 2016 gaps report (Mazur et al., 2018). Females below the age 19 who become expectant have a 50% greater chance of miscarriages and newborn deaths accompanied by an increased risk of preterm birth, less birth mass, and lack of oxygen, all of which have a detrimental effect on the unborn child's health and contribute to the cycle of poverty (Binu et al., 2018).

In Ghana, youth health is a concern for public health. Despite many young people being aware of FP, only a few fractions utilize them, resulting in poor SRH results. Furthermore, youths account for 20% of births, with the popularity of these births being ascribed to a lack of access to SRH information (Esantsi et al., 2015; Keogh et al., 2021). A previous study in Ethiopia of 690

adolescents found that just 45% of them accessed health services (Dagnew et al., 2015), while a combined method study thereof over 800 adolescents revealed 64% of them had used these services (Motuma et al., 2016). Another study conducted in Ethiopia among more than 700 students found that just 38.5% of adolescents were using the service (Helamo, 2017).

Studies on STIs among youth in Kenya are scarce, however, the most recent data suggests, 36% of Kenya's population is aged between the ages of 10 and 24. This means that almost 40% of Kenya's populace is under the age of 18 (KNBS, 2019). Godia et al. observed that the use of youth-friendly reproductive health amenities in Kenya faces a variety of challenges, ranging from the adolescent who has little knowledge of or needs information on such services, to the youthful and prosperity office perspective where there is no obligation regarding organizations, limited organization support, and helpful resources (Godia et al., 2013). Studies have indicated that teenage mothers are more likely to drop out of school, have fewer opportunities for job advancement, and have less economic empowerment, which keeps them in poverty (Nove et al., 2014).

1.2 Problem Statement

According to Barnet (2017), referenced in Family Health International (2015), using healthcare services including those for sexual and conceptual health is essential in managing the many medical disorders that affect children and teenagers. The amount to which a young person or group of young people uses a particular reproductive health service, including an example of use and the service type used, at a given period in time, is further conceptualized by Barnet B. as usage. This suggests that conceptual health administrations exist and are being eliminated, including the health offices.

Kenya's Ministry of Health (MoH) in the (KDHS) 2014 accounts, about 56% of women and 66% of men have some level of knowledge and comprehension of sexual and reproductive health. Healthcare frameworks may now and again fall flat to prioritize teenagers' health and wind up neglecting regenerative health service provision to them (FHI, 2016). Now and again, young people themselves may come up short to consume existing conceptive health administrations because of various elements. For instance, adolescents could think about the administrations and don't have any desire to look for them due to a few worries that they should be tended to (Chen, 2017). In the pastoral communities of Samburu, no study has been conducted to assess the use of reproductive health among them, and prevalence is not yet done.

1.3 Study Objectives

1.3.1 General Objective

To assess factors influencing the use of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya

1.3.2 Specific Objectives

1 To determine the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya

2 To assess the social demographic characteristics influencing the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya

3 To assess how knowledge and altitude affect the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya

4 To assess social-cultural factors influencing the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya

5 To assess health system factors influencing the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya

1.4 Research Questions

1 What is the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya?

2 What are the social demographic characteristics influencing the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya?

3 How do knowledge and altitude affect the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya?

4 What are the social-cultural factors influencing the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya?

5 What are the health system factors influencing the utilization of youth-friendly reproductive health services among youths and adolescents in Samburu County in Kenya?

1.5 Study Justification

Numerous studies that have been conducted in Kenya on the factors that influence the use of reproductive health care have primarily concentrated on the provision and availability of the services, and very few have concentrated on the youth or the pastoralist communities. The independence of young pastoralists, which affects their use of regenerative healthcare services, has not been taken into account in the studies. Understanding, contextualizing, and addressing the factors that reduce interest in and usage of conceptive wellness administrations in Kenya is necessary. A portion of these components within the healthcare framework was acknowledged by the National Reproductive Health Strategy 2016-2015, including ineffective administrative

frameworks, inadequately gifted orderlies, a lack of necessary hardware and support, medications and supplies, and inadequate referral and linkage systems.

The health problems that the Kenyan young, not to mention the pastoral communities, suffer have multiplied over time and are currently not being resolved by the measures put in place. Unstudied segment, socio-social, financial, informational, and wellness framework elements that affect the usage of conceptive medical care advantages are most likely present. In Kenya, youth are in danger because they underuse services for reproductive health care. The use of reproductive health services needs charitable partaking, Though, there may be reasons why young people are less inclined to use reproductive health care services, and this study aims to identify these aspects. There is little information about the level of youths' use of reproductive health amenities in the study county, particularly in the pastoral villages.

1.6 Significance of the Study

The quality of life for youths and teenagers in Samburu County will be promoted and improved by this research on the use of SRH amenities. Info obtained from this research helped in comprehending the use of reproductive health services among adults in Samburu County. This raised public awareness and provide more information about the available services, this contributed to a decrease in the number of youths who contract STDs. The data helped the country’s evidence-based programs that aim to enhance juvenile health by scaling up and expanding SRH services for youth. The study also contributed to a greater understanding of the subject by providing information on the topic that is lacking and acting as a starting point for further research.

1.7 Study Scope

In the north-western region of Kenya, in the county of Samburu, the study was conducted among youngsters and adolescents. The study concentrated on identifying sociodemographic factors, social-cultural factors, knowledge and attitudes, and health system determinants that influenced the use of reproductive health care. Over two months, data was gathered from 252 participants, who were selected randomly to partake in this research. Structured questionnaires were used to collect data from research participants.

1.8 Study Assumptions

The study made the following assumptions: that adolescents and young people in Samburu County were willing to participate, that they would provide accurate information needed for data collection, that they were located in areas of the county that were easily accessible, and that they were familiar with the English language since it was used in the data collection tool.

1.9Study Limitations

Due to the planned study design, a causal association was not established by the study. The sample size utilized in this study was will not tatistically representative, but it aided in learning more about the risk factors.

1.10 Delimitations of the Study.

Only 252 adolescents and youths residing in Samburu County were encompassed in the research. This research focus was restricted to five specific objectives: knowledge and attitudes, sociodemographic factors, socio-cultural factors, and health system determinants that influence the utilization of youth-friendly reproductive health services

1.11 Operational Classification of Key Relations

Adolescents/Youth(s)	Individuals who are of age between 10 to 24 years
Utilization of reproductive health services	Regarded the use of reproductive health amenities including consultation, clinical examination, Family Planning, and health guidance on HIV/AIDS and STI action services given in health care facilities.
Utilization	Alludes to the capacity to utilize specific medical care services including financial aspects, geographical areas accessibility of adequate medical care services, and physical and social assets (Rebman, 2015).
Health-service provider:	refers to somebody giving medical care services to clients. In numerous areas, services are given by qualified and approved people.

CHAPTER TWO:

REVIEW OF THE LITERATURE

2.0 Introduction

This section displays the empirical studies on the factors that impede the adolescent application of reproductive health in nomadic communities. It also provides the conceptual framework and theoretical framework.

2.1 Empirical literature review

2.1.1 Overview of Adolescent and Youth-friendly Reproductive Health Amenities

From existing studies, there has been no single explanation of what reproductive health services stand for but within the existing literature, sexual and reproductive health is described by the combination of "sexual health" and "regenerative health". The Global Health Group (WHO), referred to in Amaje et al., (2022) refers to sexual health as "a condition of complete physical, psychological, emotional, and social health relating to sexuality; not only the shortfall of sickness, brokenness or ailment".

Sexual health has been regarded as one of the largest contexts of reproductive health globally, and initiatives such as The 1994 ICPD Programme of Action have affirmed the same. This forum aims to provide sufficient info, knowledge, and health services to the concerned youths to help them make an informed decision on their sexual health to enable full protection from unwanted pregnancy. Additionally explicitly sent contaminations including HIV/AIDS. One of the investigations that were directed in Cambodia discovered that challenges that made the adolescent not ready for enough admittance to reproductive healthcare services incorporate not being sure,

being, for the most part, timid, having poor relationships with health professionals, having low expertise levels, and absence of prioritizing of reproductive healthcare services for the young people by their families(Mehra et al., 2013).

A study in China that tried to examine the young people's well-disposed services revealed that despite the presence of improved infrastructure, better instruments, cordial health personnel, and a good working environment, some young people couldn't utilize reproductive healthcare services due to a lack of awareness, few full-time healthcare specialists, poor health care services and a free reference framework (Gebrie et al., 2021).

Studies conducted in Russia republic revealed that regardless of young people's reproductive health needs among the main worry and needs of the administration, medical care and instruction system frameworks in the nation were not satisfactorily prepared for them to handle a portion of the regular regenerative health challenges among the adolescent(Mulugeta et al., 2019). For this situation, young people in Russia of ages 15-18 years were being engaged well by non-health experts. One of the examinations that were directed in Zimbabwe on the thing that was essentially influencing the regenerative soundness of numerous Africans discovered that most of the young were not visiting existing regenerative health offices because of significant distance, a youngster's being excessively occupied with others by and large inclination timid to go for the administrations (James et al., 2018).

In one of the examinations that were directed in Nigeria to evaluate medical care offices giving conceptive good health administrations, it was discovered that few problems were present and were a test in assistance procedure. It announced that a predetermined number of health offices had not many impregnable health specialist organizations that were fit to be "adolescence amicable" because they couldn't meet the for the most part known and worthy principles for the

arrangement of youth cordial administrations. It was discovered that the greater part of the offices was worked by NGOs and learning institutions. They had not had much staff, didn't have clear strategies, techniques, and rules, and didn't have sufficient Information Schooling Communication (IEC) materials for the young(Ayehu et al., 2016).

In South Africa, intercessions focusing on youngsters were restricted notwithstanding being executed (Francis & Chizoba Gabriel, 2019). In a survey subjected to South Africa to survey the aspects that deterred the adolescent from utilizing regenerative administrations for the young found that odd hours or wrong areas, threatening medical services staff, and what adolescents viewed as the absence of protection were answerable for non-utilization of conceptive health administrations implied for the adolescent (Onukwugha et al., 2019).

In Ethiopia, one of the examinations directed by Belay et al.,(2021)on the usage of the youth-friendly benefits in the Harar area recognized that notwithstanding most adolescents having a positive demeanor towards the conceptive health administrations, they had restricted information and understanding of the administrations they were looking for. A similar report additionally announced that it was barely any offices given YFS in the Harar area, along these lines pointing to the impediments in offering youth agreeable conceptive health administrations in that locale(Belay et al., 2021b).

Mayeye et al., (2010) noticed that the use of youth well-disposed sexual and conceptive administrations in Kenya experience various difficulties for the young who have pretty much nothing or need data on youth cordial conceptive health administrations, Lack of adequate financial resources and poor staff mentality has led to a negative uptake of reproductive health services by local youth in concerned areas. This comes as a result of poor administration response in creating awareness for these services.

2.2 Knowledge and Altitude

Insufficient info about procreation heath and procreation health services is a boundary that may prevent the usage of RHS by teenagers. (Mmari & Sabherwal, 2013). Research done in Uganda, Malawi, Burkina Faso, and Ghana revealed that VCT, STI, and prophylactic services administration are underutilized by youths due to inadequacy of info regarding the mentioned services. The research revealed that the absence of comprehension of the significance of erotic medical care or information on where to seek care deters youngsters from utilizing the administration. There is likewise proof that the more instructed young people are almost certain they are to look for youth-accommodating health administrations as they have a superior comprehension of their health needs(Zahra et al., 2019). It is recognized that instruction is a vital part of a supportable turn of events and has been a significant basic determinant of health at individual and local area levels. Schooling diminishes neediness through enhanced work openings and gives abilities to accomplish better health(Bergström et al., 2018).

At a personal level, shame-seeking for reproductive health services is reported in different investigations as boundaries to adolescents ‟s admittance to reproductive health services (Abraham et al., 2019). Diffidence has been identified as one of the most normally announced elucidations among young men (69%) and also, the second joint justification for young adult young ladies for not getting reproductive health services in an investigation directed in Nepal(Abiodun & Olu Abiodun, 2016).

This included hesitance to examine touchy topics related to reproductive health services and the shame related to physical/genital assessment especially if there was just a supplier of the other gender present or if the supplier was somebody well-recognized in the family. Research has investigated the inclination of young people to see health suppliers of similar sex as a boundary to

the usage of administrations(Dida et al., 2015). An examination in Malawi announced youths were not receiving administration services since they were experiencing problems in revealing genital issues to a person of the contrary sex(Abajobir & Seme, 2014).

Studies show that the more young are taught, the more the probability of looking for regenerative health administrations as they have a superior comprehension of their conceptive health needs(Dida et al., 2015). Tlaye et al., (2018) in their surveys on their research among adolescents youths on conceptive health services in Kenya revealed that most youths don't as expected grasp the importance of regenerative medical care or don't have the foggiest idea where to go for conceptive health care services subsequently don't utilize the administrations. Instruction is a significant segment in conveying conceptive health information and can expand the usage of regenerative health administrations(Tlaye et al., 2018).

Information and other factors influence how informed young people are offered to have abilities and are more educated on erotic and reproductive health and related hazards and subsequently will, in general, be more liable for does and events that have sway on their health. According to the MoH's KDHS 2018 survey report, there was an increasing consumption of family planning services by Kenyan youths especially by those between 20-24 years as compared to other Kenyan youths between 10 - 19 years. A A study on reproductive health services by Yuya et al., (2021) pointed to unwilling youths who were not willing to go for regenerative medical care benefits because of existing enactments and strategies that will in general restrict the arrangement of medical care because of one's age, the conjugal status of health administration clients, absence of better data, and comprehension of their truly changing bodies just as the absence of appropriate mindfulness

creation explicitly on the potential and genuine dangers that accompany first and early sexual activity, HIV/AIDS and getting pregnant(Yuya et al., 2021).

Dillip et al.,(2012) undertook their study in Mali to asses the various reproductive health challenges. The youth in society face numerous challenges during their attempt to obtain reproductive health services. Some of these include policies that prevent the provision of reproductive health amenities, barriers related to administration and operation in the health centers, lack of information, and the general feeling of discomfort and embarrassment concerning the wider environment(Dillip et al., 2012). Various examinations have suggested that on multiple occasions adolescents experience health suppliers who as a rule pass judgment on them, are inconsiderate when imparting, and may thoroughly decline to give medical care administrations. This is so normal, particularly in the offices claimed and overseen by the public authority(Meyer et al., 2022).

Different adolescents have varying reproductive health needs and face different vulnerabilities, risks, and obstacles that require special attention and understanding within their context. Results from Kenya's 2014 Demographic and Health Review showed that erotic and reproductive health was improving but some areas needed further work(Awuah, 2022).

The majority of existing family planning methods intended to cater to young youth and adults have been neglected and much focus has been on married couples, thus leaving the adolescents much abandoned (Adinew et al., 2013). Poor access to reproductive health services has become a barrier to these services among youths, this has been steered by a lack of info regarding these services. This comes as a result of a lack of motivation to have this discussed among young people(Adinew et al., 2013).

A study carried out in Cambodia revealed that the major barrier to access to reproductive health services includes, lack of cover-up, anxiety, poor association with healthcare employees, analphabetism, and low ranking by parents for reproductive health amenities. Research on the insubordination of health care workers to youth procreation health services in Uganda, Zambia, Swaziland, and Kenya reported the vast experience of youths. there is disregard for youth reproductive health in society entailing abortion, contraception, and masturbation. However, those with vast knowledge of RHS regard not share this information(Abajobir & Seme, 2014).

In a report by the Kenya National Commission on Human Rights (2012) researching rape cases linked to procreate health services rights in Kenya. It was noted that youths lack access to good health services which include STI care, safe abortion services, and antenatal care which have often led to higher perinatal and maternal death. Sexual violence and abuse are major concerns affecting the youths, this includes rape and defilement cases as well as forced sex. All these factors have led to an increased prevalence of STIs and HIV(Tsega, 2018).

Good access to education among women has enabled the creation of opportunities in life which has enabled youths to make better plans for the betterment of their families. Men and women who are educated are more likely to seek procreation and health services since they are educated hence an elevated level of confidence in seeking these health services(Tsega, 2018). Developed nations like Thailand have a literacy level of 96% among women this has led to a decline in the fertility rate which has led to a population growth of 1.4% per annum. In the upcoming nation in Africa, the more educated a woman is the higher the rate fertility rate (Tsega, 2018).

Engagement in early marriage and early pregnancy has led to a poor understanding of reproductive health services. This has led to an increased rate of risky sexual behavior this is according to a study in Bangladesh(Yuya et al., 2021). The need for timely information on reproductive health services is essential, this includes the better provision of better family planning services, STI prevention programs are not adequately provided at all levels of care services(Yuya et al., 2021). A study done in Ghana in 2016 revealed that the youths regardless of their age have much information about erotic and reproductive health, but findings on sexuality and HIV revealed that youth barely use health services(Abiodun & Olu Abiodun, 2016). A study on the erotic health experiences of youths done in three 18 Ghanaian municipalities showed that the youth have considerable gaps in their knowledge of reproductive health(Abajobir & Seme, 2014).

2.3 Social cultural factors

Monetary hindrances are other critical components that may influence adolescents‟ admittance to RHS. An investigation done by Package for Suitable Knowledge in Health (PATH) (1999) revealed that health administration usage including RHS was attached to the financial parts of a person. In a huge scope populace-based study in Zimbabwe and Kenya, analysts found reasonableness to be 3rd most significant part of „youth-friendliness,‟ as detailed by youngsters themselves(Belay et al., 2021a). Teenagers in the examination implied the way that they couldn't manage the cost of the expense of administrations that were given and this filled in as a boundary to their usage of the administrations. The teenagers proposed the arrangement of ease or free administration as perhaps the main parts of ARHS to be routed to advance operation. Unattached youngsters are especially frequently subordinate monetarily to guardians and might fear being censured or opposed if they demand cash for SRHS (Maruwo et al., 2022).

Regenerative health is additionally affected by values, social standards, and customs clung to by various networks and these can fill in as hindrances to getting to and using ARHS(Maruwo et al., 2022). Social and strict variables establish a negative climate for a conversation about ASRH because of the emphatically established feeling of the judgment of juvenile sexual movement(Tilahun et al., 2020). Studies have shown that in societies in which accepted practices don't support early sex, unattached youngsters and knowledge of sexual issues like an STD or on the other hand impromptu pregnancy will most likely address the issue all alone. In people groups where early sexual movement isn't excused, youths have been found to have restricted admittance to RHS and data(Abdulmalik et al., 2014). Revisions have additionally shown that conviction is a significant boundary to youths‟ use of RHS(Abdulmalik et al., 2014). Strict values generally forestall the open conversation of sexual issues that will in general diminish adolescents' access to fundamental conceptive health data and administrations. Exploration has shown youths are still explicitly dynamic notwithstanding these ethical hindrances and frequently end up with horrible outcomes(Tilahun et al., 2020). They may request help from believed companions or kin or go to cloistered facilities and admission care from centers that are a long way from their hometowns (Tilahun et al., 2020).

Notwithstanding, if young people are upheld by guardians, households, and other local area individuals they are better prepared to settle on solid decisions(AlQuaiz et al., 2013). Education has additionally shown that teenagers'‟ usage of RHS might be confined in light of terror, shame, and disgrace(Gurara et al., 2020). An examination in Tanzania revealed that youths don't look for formal treatment for conceptive medical conditions because of the disgrace and dread of revelation(Habitu, 2019). Another investigation directed in Australia uncovered that youngsters who were deterred from visiting centers were given the dread of the conceivable shame appended

to ARHS(Abraham et al., 2019; Dida et al., 2015). Young individuals dread disgrace and consequences or verdicts from suppliers, households, and networks that thwart them from getting to RHS, especially unattached young people and particularly young ladies(AlQuaiz et al., 2013). The socio-social and strict setting in which Kenya's youngsters live has significantly changed over the previous few ages. The youth in contemporary society approach data by utilizing web access to various youth magazines, lifestyle programs on Television sets, and a few radio broadcasts just as have cell phones. Such different patterns have affected youngsters' esteemed and ways of life which have in this manner prompted an expanded distance between ages (Helamo, 2017).

Helamo,(2017) in one of the studies on reproductive health and HIV/AIDS progress in Kenya and Malawi among the youth concluded that many of the health of many youths are influenced by either their parents, opinions of their religious leaders, as well as their mentors and friends. Religious norms control most youths and restrict them from engaging in sex. Such and other efforts by the religious community have been eroded by increasing rates of urbanization making the youth live on their own without any form of religious guidance, support, and control(MOH, 2014).

Social and strict components edge and shape how people see the world and their encounters. For example, culture makes esteems, standards, and assumptions regarding sexual connections just as jobs, practices, and practices. Religion additionally imparts values and a way of thinking about life in people and their viewpoints(Ayehu et al., 2016). Every religion has its viewpoint, explicit culture, and explicit conduct. Nonetheless, social qualities and strict convictions around sexuality and propagation fluctuate across different ethnic and strict gatherings(Mekie et al., 2020). The use of health administrations is probably going to increment where networks participate in certain

discourses to advance the estimation of health administrations and empower support for the arrangement of value administrations to youth (WHO, 2016).

2.4 Health system factors

Better access to healthcare services globally has become a global need in the achievement of human rights. The role of reproductive health services in the achievement of MDG 5 cannot b ignored in the achievement of health which entails better maternal and neonatal health, control of abortion and miscarriage, control of STIs, and better access to reproductive health services. There is a need to emphasize better HIV control strategies in developing nations. There is a need to emphasize better reproductive sexual and reproductive health among youths not at the national level but at a global level(Ninsiima et al., 2021).

A study done in UK and USA reported that similar need to progress adult services and male openness in integrating HIV amenities, there is a need to learn about family planning and the disease that is spread sexually(Mikie et al., 2020). In a study done in Mongolia, they found that the introduction of youth-friendly initiatives is essential in engaging youths in preventive activities. According to this research, there was a noted reduction level of mortality's a result of increased on use contraceptive use(Tlaye et al., 2018). Many states in Africa are taking action in enhancing reproductive health services by ensuring there is an easy legal process in enhancing easy access to these services(Tlaye et al., 2018).

The Ministry of public health has recently introduced a range of programs in ensuring various school health programs are implemented to enhance good reproductive health services are implemented. This has enabled the state to address various challenges affecting the youth, students, families, and teachers(Ninsiima et al., 2021). The national school well policy has mandated the

right of school girls to have a right to education during and after pregnancy. According to this policy, there is a need to invite other stakeholders in ensuring young school-going children are well supported and especially when they are pregnant(Habitu, 2019).

Despite the existence of procedures and guidelines being put in place to ensure adequate use of reproductive health among adults in Kenya, various challenges have been noted to affect these services. The continued unmet need for FP continues to rise among youths. In the KDHS of 2008/2009,2/3 reproductive active adults are not using family planning when the research was conducted. The shame youths undergo through when seeking reproductive health services and HIV services is a great hindrance to the use of these services(Tilahun et al., 2020). Confusion exists between various strategies. Reproductive health services remain underused due to the existence of various challenges in this sector. this has led to an increase in morbidity and mortality among teenagers(Tilahun et al., 2020).

In numerous underdeveloped states, allowing permission for erotic and RH care for adolescents is past the prosperity systems‟ limit. Now and again even where prosperous workplaces exist, there isn't adequate arranged staff to offer the necessary kinds of help, and supplies of prescriptions and contraceptive devices are confined(Ayehu et al., 2016). Persistent slightness systems with weak establishment for sexual prosperity, correspondences, and transport can make induction to organizations in country regions predominantly inconvenient(Braeken & Rondinelli, 2012). For example, in Nigeria, a focal limit to giving agreeable broad ARHS has been the shortfall of the game plan of acceptable capital (sponsoring, staff, structure, and supplies), particularly at the sub-public level for execution of the ICPD-changed techniques, undertakings, and organizations (USAID, 2015).

An examination directed among young people in Tanzanian recommended that some health specialist co-ops were utilizing unpleasant language and yelling at the adolescent by and large for being explicitly dynamic when looking for regenerative medical care administration(Giri et al., 2019). In another investigation directed among Ugandan adolescents, it was discovered that the lion's share of the youngsters turned to drug stores without appropriately unveiling the condition that they were looking for consideration and treatment (Gurara et al., 2020).

Poor attitudes toward health caretakers have been named as a barrier that has been known to discourage young people from seeking health services and further healthcare support(MOH, 2016; Tlaye et al., 2018). In a study done in Ethiopia on the mentalities of the medical care suppliers on conceptive medical care administrations for the sole adolescents, people reasoned that approximately medical services suppliers were concocting some type of decisions and guidelines that debilitate early gender and wound up debilitating looking for of health administrations by the young(Tilahun et al., 2020).

2.5 Critical Review Research Gap

Inappropriate use of contraceptives among adolescents is on the rise ranging at 60% in Various local areas of SSA and South Asia(UNFPA, 2013b). use of modern contraceptive methods, by young couples in SSA, has been noted to be low in this region(UNFPA, 2015b). majority of young youths have been noted not to use contraceptive methods in this region(IPPF, 2019). Young couples have been observed to use modern contraceptive methods and it is on the rise by 3% in Rwanda and 56% in Burkina Faso Khan and Mishra, 2018). There is no adequate data on the use of youth-friendly reproductive health services among youths this comes despite various research done giving a focus on reproductive health among ladies of reproductive age.

2.6 Theoretical Literature Review.

2.6.1 The General Systems Model (GST)

This model was initially developed in the 90s by researcher Ludwig von Bertalanffy but Ross Ashby and Stephen Hawking later improved it. As shown by the speculation, zero can be seen in parting except ought to be a segment of an arrangement that could be secluded into a couple of distinct shares and fragments which are put in place autonomously and as a free component. The fragments could in like manner be incorporated into an immediate plan to depict the aggregate of the system. According to Fröhlich, (2019), being conversant with only a part of the system enables one to understand a bit of the other. The theory provides a framework that gives a clear understanding of the quality of the health care system since it provides an understanding of the entire system and the relationship it has with other parts other than separate parts. The course of action of extraordinary clinical consideration is practically sure in systems where the different associations and interrelationships existing are seen and constantly considered as of great importance(Peery, 1972).

The components of proper care within healthcare systems include skillful and qualified personnel, good policies, procedures, and processes that guide the practice of health care, safe environments for providing healthcare services, disease management processes that is based on evidence and research, patient involvement in health care through viable correspondence, and explicit practices, for example, an authoritative obligation to service delivery (Fröhlich, 2019).

The theory brings an understanding of the whole healthcare system and goes ahead to reveal how various parts interrelate with one another. The theory recommends that when an error occurs in

the system caused by system malfunction, it is important to understand the other related components that might be falling externally (in this case reproductive health and related challenges among the youth)(Peery, 1972).

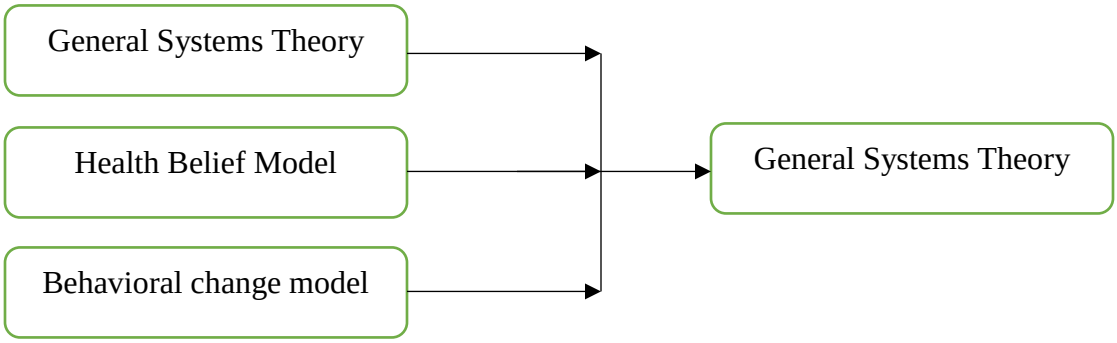

Figure 1:The general system theory(Peery, 1972)

2.6.2 The HBM

This study was guided by the HBM. The HBM recommends that healthcare-seeking behavior is led by the perception of a person or fears brought about by health problems and the significance of addressing the fears causative itself. The various parts that are believed to be this model include: seeing the probability of hurt, seeing the serious nature of the result of the activity, and the costs required just as empowering or changing components (Polit & Hungler 1999). Health-seeking behaviors of young persons are based on what they consider as benefiting and costing them, factors that affect them from accessing and using health services and facilities thus influencing their decisions to seek or not to seek the services(Butler et al., 2015).

Butler (1994) defines health behavior as the individual activities carried out with the acceptance that it is solid and will encourage recognition and counteraction of any infections at any stage on schedule. In this study, health behavior is considered to be those actions and activities carried out

by the young when seeking erotic and reproductive health services to avert potential health difficulties such as unsolicited gravidities and STIs including HIV and Aids. The theory describes perceptions of the individual seen in the context of dominations that the individual looks at concerning the risk of them contracting a health disorder they deliberate to affect them. In this research, personal perceptions are the activities of the young people taking part in practices like early sex and potential outcomes, like early pregnancies and STIs, and how this would force them to seek reproductive health services.

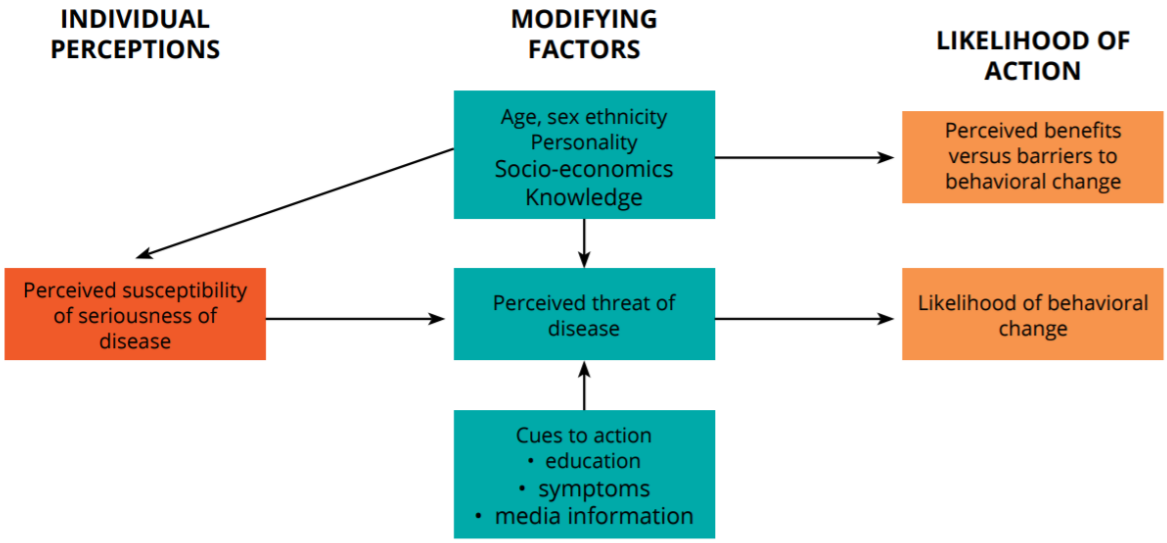

Figure 2:Behavioral change model

2.6.3 Theory of planned behavior

Action is influenced by three factors this includes attitude which enables a positive behavior change. This is according to TPB theory. The second is Subjective norms: the belief that the behavior is accepted by others while the third element is Perceived behavioral control: (supposed ability) the belief that one has the aids and competence to change performance.

The TPB has been used to enact a change of behavior which has been thought to be enacted by people of a close network as well as peer pleasure. According to this peer, pleasure has a big role in enhancing a behavior change in an individual. It's therefore essential to come up with shortcomings of behavior change to promote the action of change.

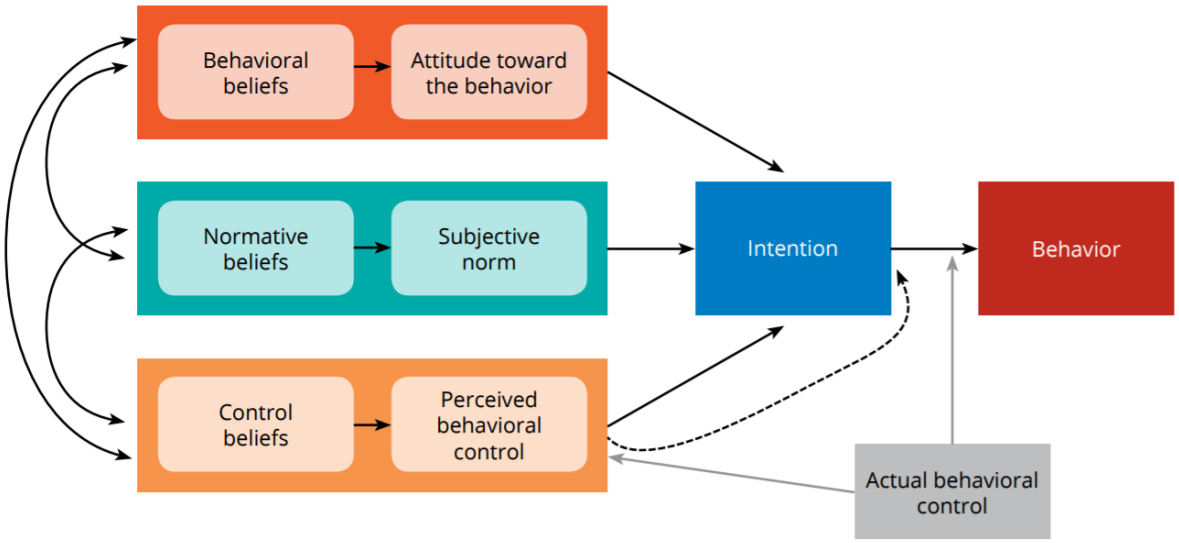

Figure 3: Theory of planned behavior

2.7 Summary Of Conceptual Outline:

The first independent variable of the research was **to assess** knowledge and altitude factors by both the adolescents and youth influencing the utilization of reproductive health services. The second independent variable was to determine social demographic factors influencing the utilization of reproductive health services, the third independent variable of the study is the healthcare systems factors (Equipped rooms, stocked pharmacy, and friendly HCWs) and the last was the social-cultural factors which include religion, ethnicity, fear, and the community mobilization campaigns.

The dependent variable is the utilization of Youth friendly reproductive health services. The moderating variables **(**WHO Guideline, Government Policy, Individual Characteristics of Respondents STAFF).

2.8 Conceptual framework

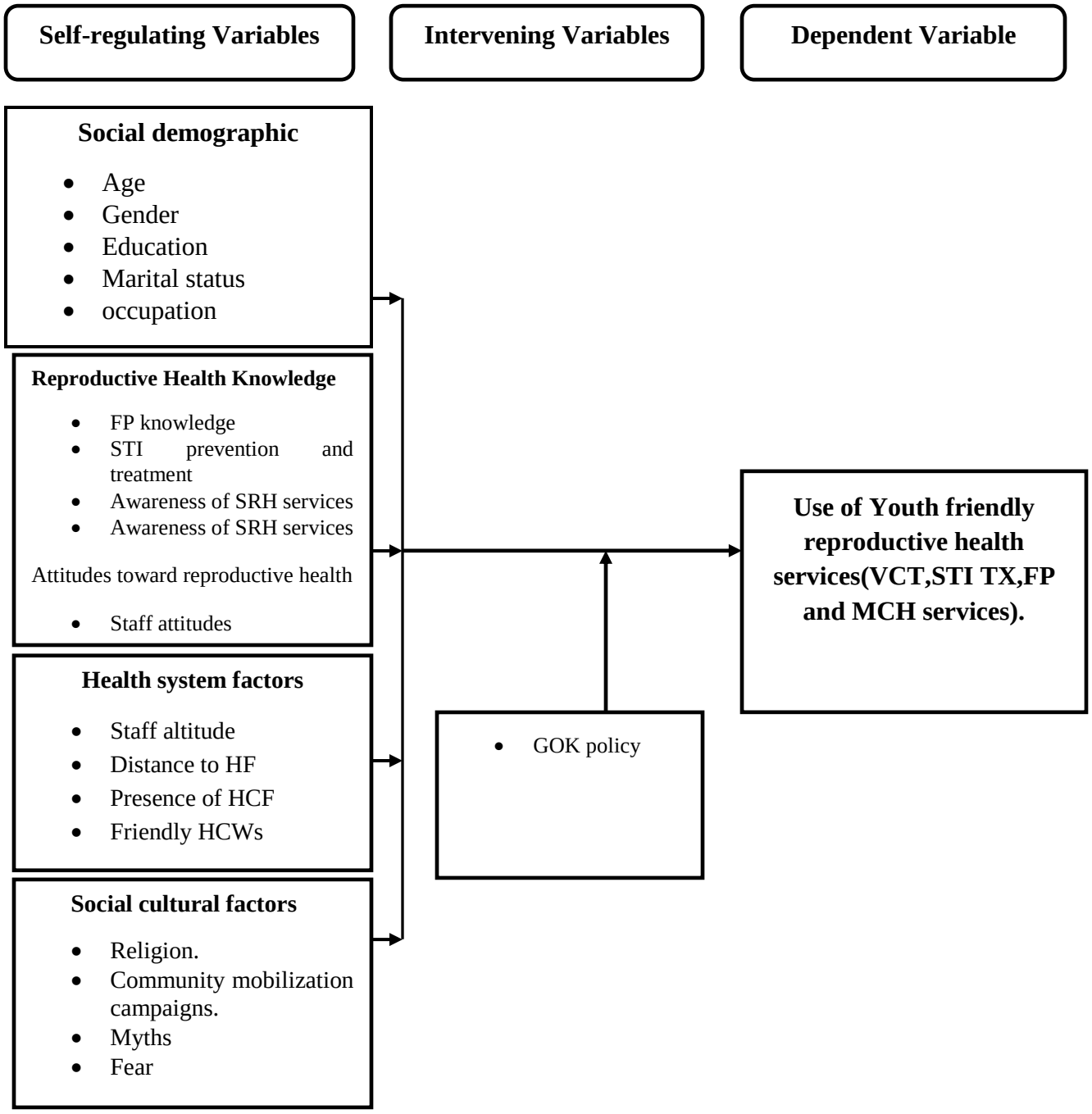

Figure 4:Conceptual framework adapted from a literature search.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section depicted the procedures of the proposed study which incorporated; research design, study populace, study inspecting and examining methods, instruments for information collection, the information assortment measure, and factual examination to be utilized in the investigation. In this part, the examination distinguished the methodology and strategies that were utilized in the examination, handling, and investigation of information. Explicitly the section talked about the data collection plan, the investigation populace information assortment instruments, information assortment methodology lastly information examination. The information introduction strategy to be utilized is additionally talked about in this part.

3.1 Research Design

The design of the research is a plan for leading the exploration that indicates the strategies important to get the data expected to structure and tackle the exploration issues. The study employed an analytical cross-sectional study design to assess the factors that affect the utilization of reproductive health services among youths and adolescents

3.2 Target population

The population target alludes to the populace to which the scientist makes deductions; this populace ought to hypothetically be countable, recognizable, and exist inside a particular period. The all-out target populace for this research were youths attending Samburu County referral hospital seeking reproductive health services and this service includes Counseling services, family planning, VCT, management of STIs, and ANC & PNC services.

3.3 Sample Size Determination:

The study employed the Fischer *et al*(1976) formula of to formulate the compute the sample size. This study used the prevalence of 20.7% to compute the sample size as the proportion of youths utilizing reproductive health.

$$n = \frac{Z_{1-\propto}^2 \times P(1-P)}{\partial^2}$$

n = Stands for the size of the sample desired when the population is > 10,000

$\propto$= Significance level (5%)

Z = std corresponding to 95% confidence level (1.96)

P = Assumed proportion of youths utilizing reproductive health- 20.7% in a study done in Kenya in 2018.

∂ = Desired accuracy degree at 5%

$$n = \frac{1.96^2 \times 0.207(1-0.207)}{0.05^2} = 252.24 \approx 252$$

$$n = 252$$

The study will require 252 respondents

3.4 Sampling Technique

Samburu county referral hospital was purposefully selected for the study as it serves a diverse set of population including the pastoral community. Participant selection was done by systematic

sampling. To determine the initial point, the first participant was randomly selected. Participants who were assigned an even number will participate in the study.

3.5 Data collection method and Instruments.

Both techniques of quantitative and qualitative methods of data collection were employed whereby semi-structured study-administered questionnaires were used to collect data. Both KII and FGD were employed to obtain qualitative data.

3.6 **Data Collection Procedures**

A combination of methods was used to gather quantitative data using a semi-structured questionnaire directed to study participants, both FGD and KII were put into use to collect qualitative data.

The interview-administered questionnaires were used in this study and had 4 subsections. Section A was on the social demographic. Section B was on the utilization of reproductive health services, Section C was on knowledge and altitude factors. Section D captured data on health system factors. Lastly, Section E will capture data on social-cultural factors that affect the use of reproductive health services among the adolescent & youth in pastoral in Samburu County, Kenya

An audio tape recorder was used to collect data for KII and FGD, both KII guide and FGD guides were used by the moderator when audio recording.

3.7 Inclusion and Exclusion Criteria

3.7.1 Inclusion criteria

1. All consenting youths who were residents of the Samburu County pastoral community

3.7.2 Exclusive criteria

1. Youth who were not residents of the pastoral community of Samburu County were excluded from this study
2. Youths who didn't consent to participate in this study were also excluded from this study.

3.8 Validity

A counselor reviewed the research questionnaires before data collection. This was necessary to ensure consistency and also for creating room for additional info needed to ensure the success of this research.

3.9 Reliability of instruments.

Refers to the extent to which a study tool yields reliable outcomes after repeated trials. 25 study respondents from the neighboring county were employed for pretesting the data collection tool. The study participants who were employed in this exercise were not employed in the data collection phase. Both internal consistency and equivalence were done to ensure the questionnaire is reliable. A coefficient alpha of above 70% was acceptable in this study.

3.11 Data Analysis

Before data analysis, the raw data was subjected to data cleaning this was important for the purposes of checking for any outliers and inconsistencies.

3.11.1 Quantitative Data Analysis

The quantitative data in this study were analyzed by descriptive statistics using the statistical package for social sciences SPSS (V25). The Chi-square test for independence and binary logistic

regression were employed to establish a relationship between independent and dependent variables.

3.11.2 Qualitative Data Analysis

Thematic analysis was used to analyze the focused group discussion and key informant interview audio. Emerging themes were guided by the research objectives and research questions. The researcher then integrated the qualitative and quantitative data to answer the study questions.

3.12 Ethical Considerations

To make sure that the study was carried out in a manner that does not contravene the ethics, the researcher obtained a letter from Mount Kenya University's ethical review office. Also, a letter of approval from the National Council of Science and Technology (NACOSTI) was also obtained and a letter from relevant country government offices, permitting the study to be carried out was also obtained. Moreover, due to the confidentiality of some data that was collected, the investigator assured the participants of the privacy of the info they provided. Since some of the participants were not willing to give out some info openly, the research assured that the info was to be treated with outermost privacy.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This section provides the response rate of the study, the utilization rate of youth-friendly reproductive health services, and descriptive and inferential statistics of the research objectives.

4.1 Response rate

This research administered 252 questionnaires to eligible adolescents and youths in Samburu county, Kenya. The response rate of this study was (93.3%) indicating that 235 of the study questionnaires were considered fit for the analysis of data

4.2 Utilization of Youth Reproductive Health Services

From this study, as indicated in Figure 5 below, the utilization of youth-friendly reproductive health services was 40.6% which is way less as compared to the national target. These findings were similar to a study done in Ethiopia which reported a 44.4% utilization of youth-friendly reproductive health services(Teferi et al., 2022). But another study done ethiopia in reported a lower utilization rate of youth-friendly reproductive health services at 28%(Tsegaw et al., 2023). This was contrary to another study done in Uganda that reported a higher utilization rate of youth-friendly reproductive health services at 48%(Ninsiima et al., 2021). the probable reasons for differences in the utilization of youth-friendly reproductive health services were the difference in the sampling procedures and the difference in the study region.

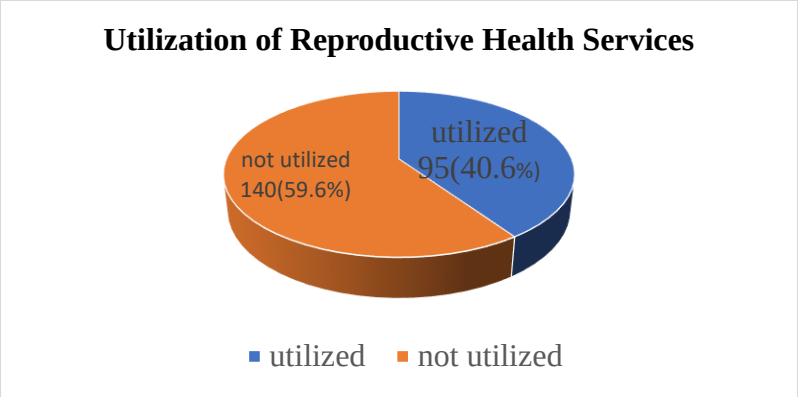

Figure 5: Utilization of Youth friendly Reproductive Health Services

4.2.1Multiple Responses on Reproductive Health Services Utilized

As indicated in Table 1 below, regarding the type of youth-friendly reproductive health services utilized, the majority(96.8%) of the study respondents reported utilizing voluntary and counseling services, this was closely(76.6%) followed by family planning and maternal and child health services standing at (72.3%). the least(14.9%) utilized youth-friendly reproductive health service in this study was general counseling.

Table 1: 1Multiple Responses on Reproductive Health Services Utilized

Reproductive health services	Categories	Frequency of responses	Percentage of cases%
	Vct services	91	96.8
	STI treatment	18	19.1
	MCH services	68	72.3
	Counseling	14	14.9
	Family planning	72	76.6
Total		**263**	**279.8**

4.3. Social Demographic Characteristics

As indicated in Table 2 below, this section provides the social demographic characteristics of the study respondents. From this study, the majority (74.5%)of the study respondents were youths aged 20-24 and this could be linked to their urge to seek youth-friendly reproductive health services as at this age is when the majority of youths tend to experience reproductive health issues. Only a few (17.4%) of the study participants recruited in this study were aged 15-19 years while only a few(8.1%) of adolescents recruited in this study were aged 10-14 years and this could be linked to reduced urge to seek youth-friendly reproductive health services as majority of the adolescent in this age are yet or are on the onset of experiencing reproductive health concerns. Regarding gender, the majority(78.3%) of the study respondents were female while only a few(21.7%)were males. this could be associated with females experiencing reproductive health issues hence the need to seek youth-friendly reproductive health services. Regarding marital status more than half (63%)of the study respondents were single and this could be linked to their young

age, more than a quarter(36.2%) of the study respondents reported being married, while only a few(0.9%) of the study respondents reported being separated. In this study majority(91.1%) of the study respondents were Christians and this could be linked to Christianity being the dominant religion in Kenya and in the region, while only a few (8.9%) of the study respondents were Muslims. Regarding schooling status, more than half(69.4%)of the study respondents not being in school while close to a quarter(30.6%) of the study respondents reported being in school. Concerning the level of education, the majority of the study respondents had attained a secondary school education level and this could be linked to the presence of free primary and secondary education in Kenya. Only a few(3.4%) of the study participants reported having no formal education. Lastly, regarding parents' occupations, more than half of the study respondents reported that their parents had not been employed and this could be linked to their pastoral jobs which

services as their main source of income, only a few(17.9%)of the study respondents who reported their parents being in formal employment status.

Table 2: Social Demographic Characteristics

Variable	Categories	Frequency	Valid Percentage%
Age	10-14	19	8.1
	15-19	41	17.4
	20-24	175	74.5
Gender	Male	51	21.7
	Female	184	78.3
Marital status	Single	148	63
	Separated	2	0.9
	Married	85	36.2
Religion	Muslim	21	8.9
	Christian	214	91.1
Schooling status	Yes	72	30.6
	No	163	69.4
Education level	No formal education	8	3.4
	Primary	37	15.7
	Secondary	142	60.4
	Vocational	42	17.9
	University	6	2.6
Parents occupation	Formal employment	42	17.9
	farmer	33	14
	Casual labor	19	8.1
	Self-employment	11	4.7
	Not employed	130	55.3

4.4 Bivariate and multivariate analysis of social demographic factors

4.4.1 Age and Utilization of Reproductive Health Services

As indicated in Table 3 below, regarding age, close to half(49.1%)of the study respondents who reported utilizing youth-friendly reproductive health services were aged 20-24 and this could be linked to the increased urge for reproductive health services since most of them are sexually active. only a few of the study respondents who reported utilizing youth-friendly reproductive health services were aged 10-14 years and this could be linked to the onset of their reproductive health development. When the chi-square test for independence was done there was a statistically significant association between age and the utilization of youth-friendly reproductive health services($X^2=21.635, df=2, p=0.000$). however, this didn't replicate in the multivariate analysis age was not an independent factor for utilizing youth-friendly reproductive health services(p=0.31).

These findings were not in agreement with the qualitative findings as the majority of the discussants noted that;

"I would say age is a factor for utilizing youth-friendly reproductive health services, at my age I'm sexually active and there is a need to seek some of these services such as VCT and family planning for the benefit of my health. As a woman, my reproductive health is of concern and at this age, I have to make sure I live a healthy life"

These findings were in agreement with a study done in Tunisia which found no association between age and the utilizing youth-friendly reproductive health services(Olowookere et al., 2023). However, a study done in Ethiopia and Kenya was contrary to these findings as they reported that as youths got older the urge to seek youth-friendly reproductive health services also increased(Amaje et al., 2022; Embleton et al., 2023).

4.4.2 Gender and Utilization of Reproductive Health Services

As indicated in Table 3, regarding gender close to half(47.3%) of the study respondents who sort youth-friendly reproductive health services were females, while the majority(84.3%) of the study who never sort youth-friendly reproductive health services were males, this could be linked to males disregarding reproductive health services as they are less affected as compared to females. During the chi-square test for independence, there was a statistically significant relationship between gender and the utilization of youth-friendly reproductive health services ($X^2=16.533, df=1, p=0.000$). this was also consistent with the multivariate analysis where gender was found to be an independent factor for the utilization of youth-friendly reproductive health services(p=0.001). furthermore, Males were more than 4 times less likely to utilize youth-friendly reproductive health services as compared to females.

This was in harmony with the qualitative findings where one of the key informants noted that:

"I would say as a nurse who has been serving in this area of reproductive health, females are more likely to seek youth-friendly reproductive health services as compared to males, and this could be linked to their nature of seeking appropriate medical care when need be, furthermore at his age majority are sexually active which increase the need to seek youth-friendly reproductive health services…"

These findings were in agreement with a study done in Tanzania and in Kenya where males were observed to be less likely to utilize youth-friendly reproductive health services as compared to females and this could be linked to males being less concerned about their reproductive health status(Belay et al., 2021a; Mutua et al., 2020). This was contrary to a study done in Malawi where

males were more likely to seek youth-friendly reproductive health services as compared to females(Self et al., 2018).

4.4.3 Marital Status and Utilization of Reproductive Health Services

As indicated in Table 3 below, regarding age majority(64.7%)of the study respondents who reported utilizing youth-friendly reproductive health services were married and this could be linked to the nature of the sexual activities that necessity the need to seek these health services. only a few(27%) of the study participants who sort utilizing youth-friendly reproductive health services were single. During the bivariate analysis, there was a statistically significant association between marital status and utilizing youth-friendly reproductive health services($X^2=32.661, df=2, P^*=0.000$). these findings were consistent with the multivariate analysis where marital status was found to be an independent factor for utilizing youth-friendly reproductive health services(p=0.01). Furthermore, single study respondents were 2 times less likely to utilize youth-friendly reproductive health services as compared to those who were married. The probable reason for this, married people are more sexually active as compared to singles hence the urge to seek reproductive health services.

This was in agreement with the qualitative findings where the majority of the discussants in the focused group discussion noted that

"I would say being married makes you more sexually active and as a result, you have to seek the necessary reproductive health services. for instance, you have to seek family planning to prevent an unwanted child .furtjher kore you have to know your HIV status to protect your loved ones. So I have to keep constant use of these services where possible"

These findings were in agreement with a study done in Kenya where single people were less likely to seek youth-friendly reproductive health services as compared to their fellow counterparts(Mutua et al., 2020). This was contrary to a study done in Nigeria which found no association between marital status and the utilization of youth-friendly reproductive health services(Akila et al., 2023).

4.4.4 Religion and Utilization of Reproductive Health Services

As indicated in Table 3 below, Regarding religion, more than half(57.1%) of the study respondents who reported utilizing youth-friendly reproductive health services were Muslims, while more than a quarter(42.9%) of the study participants who reported not utilizing youth-friendly reproductive health services were Christians. During the chi-square test for independence, there was no statistical association between religion and the utilization of youth-friendly reproductive health services ($X^2=2.676,df=1,p=0.102$). These findings were in harmony with a study done in Kenya and Ethiopia which reported similar findings(Amaje et al., 2022; Mutua et al., 2020). This was contrary to a study done in Uganda where Christians were 3 times more likely to seek youth-friendly reproductive health services as compared to their fellow counterparts(Murungi et al., 2023).

4.4.5 Schooling Status and Utilization of Reproductive Health Services

As indicated in Table 3 below, concerning schooling status, more than half of the study respondents who reported utilizing youth-friendly reproductive health services were not schooling during the period of data collection. While only a few of the study participants who were schooling reported utilizing youth-friendly reproductive health services. During the bivariate analysis, there was a statistically significant association between schooling status and utilizing youth-friendly reproductive health services ($X^2=21.569,df=1,p=0.000$). However, this was not in harmony with

the multivariate analysis where schooling status was not an independent factor for utilizing youth-friendly reproductive health services.

These findings were in not harmony with the qualitative data as the majority of the discussants in the focused group discussion noted that;

"I would say those who are in school are more likely to be aware of the need to seek youth-friendly reproductive health services as compared to those not in school. You will find that the Kenyan education system encourages the utilization of youth-friendly reproductive health services a factor that is likely to motivate those in school to make use of these services"

These findings were in agreement with a study done in Nepal where schooling was not found to be associated with the utilization of youth-friendly reproductive health services(Sharma Id et al., 2023). this was contrary to a study done in Zambia where schooling increased the odds of utilizing youth-friendly reproductive health services by 5(Chola et al., 2020).

4.4.6 Education Level and Utilization of Reproductive Health Services

As indicated in the table below, regarding the level of education, the majority(62.5%)of the study respondents who reported utilizing youth-friendly reproductive health services had no formal education, while more than half(52.4%) of the study participants who reported utilizing youth-friendly reproductive health services had attained vocational education level. During the chi-square test for independence, there was no statistical association between education level and utilizing youth-friendly reproductive health services (X^2=7.372,df=4,p*=0.109). However these findings were not in harmony with the qualitative data as the majority of the discussants in the focused group discussion noted that,

“ I would wish to say the level of education matter when it comes to utilizing youth-friendly reproductive health services. those who have a higher level of education are more likely to be knowledgeable about the need to seek reproductive health services as compared to their fellow counterparts. So, I feel the level of education is important in the utilization of youth-friendly reproductive health services…”

These findings were in harmony with a study done in Ethiopia as it reported similar findings(Abdurahman et al., 2022). This was contrary to a study done in Kenya which found that those who had a university education were more likely to utilize youth-friendly reproductive health services as compared to those with no formal education(Mutua et al., 2020).

4.4.7 Parent's Occupation and Utilization of Reproductive Health Services

As indicated in Table 3 below, concerning parent's occupation, more than half(54.5%)of the study respondents who reported having utilized youth-friendly reproductive health services their parents were self-employed while close to half(48.5%)of the study participants who reported having utilized youth-friendly reproductive health services their parents were farmers. During the bivariate analysis, there was no significant association between parents' occupation and utilizing youth-friendly reproductive health services ($X^2=7.298, df=4, p^*=0.116$). These findings were consistent with two other studies done in South Africa and Lesotho(Lekhotsa, 2020; Obiezu-Umeh et al., 2021).

Table 3:Bivariate Analysis of Social Demographic Factors

Independent variable	Categories	Dependent variable (Utilization of RHS)		Statistical significance (Chi-square test)
		Yes (N=95)	No (N=140)	
age	10-14	3(15.8%)	16(84.2%)	X^2=21.635
	15-19	6(14.6%)	35(85.4%)	df=2
	20-24	86(49.1%)	89(50.9%)	P=0.000
gender	Male	8(15.7%)	43(84.3%)	X^2=16.533
	Female	87(47.3%)	97(52.7%)	df=1
				P=0.000
Marital status	Single	40(27%)	108(73%)	X^2=32.661
	Separated	0(0%)	2(100%)	df=2
	Married	55(64.7%)	30(35.3%)	P*=0.000
Religion	Muslim	12(57.1%)	9(42.9%)	X^2=2.676
	Christian	83(38.8%)	131(61.2%)	df=1
				P=0.102
Schooling status	Yes	13(18.1%)	59(81.9%)	X^2=21.569
	No	82(50.3%)	81(49.7%)	df=1
				P=0.000
Education level	No formal education	5(62.5%)	3(37.5%)	X^2=7.372
				df=4
	Primary	13(35.1%)	24(64.9%)	P*=0.109
	Secondary	51(35.9%)	91(64.1%)	
	Vocational	22(52.4%)	20(47.6%)	
	University	4(40.4%)	2(59.6%)	
Parents occupation	Formal employment	19(45.2%)	23(54.8%)	X^2=7.298
				df=4
	farmer	16(48.5%)	17(51.5%)	P*=0.116
	Casual labor	3(15.8%)	16(84.2%)	
	Self-employed	6(54.5%)	5(45.5%)	
	Not employed	51(39.2%)	79(60.8%)	

P*= fischers exact test

Table 4:Multivariate Analysis of Social Demographic Factors

Step 1a	Variables	B	S.E	Wald	Df	Sig	Exp(B)	95% C.I for EXP(B)	
								Lower	Upper
	age			2.335	2	.311			
	Age (1)	.860	.793	1.175	1	.278	2.36	.499	11.183
	Age (2)	.894	.625	2.045	1	.153	2.446	.718	8.332
	gender	1.388	.437	10.109	1	.001	4.008	1.703	9.433
							ref		
	schooling	0.578	.511	1.276	1	.259	1.782	.654	4.852
	Marital status					.012			
	Marital status(1)	.977	.33	8.782	1	.003	2.655	1.382	5.066
	Marital status(2)	22.02	28.420	0.000	1	.999	3648	.000	
							ref		
	Constant	**-.815**	**.240**	**11.486**	**1**	**0.001**	**.443**		

4.5 Descriptive Statistics on Knowledge and Attitude Factors

As indicated in Table 5 below, regarding knowledge and attitude factors, the majority(80.9%) of the study respondents acknowledged unsafe sex has risks while only a few(19.1%) reported unsafe sex has no risks. Concerning awareness of sexual reproductive health problems, the majority(83.4%) of the study respondents acknowledge they were aware while only a few (16.6%) reported being unaware of sexual reproductive health problems. Regarding attitudes toward the utilization of youth-friendly reproductive health services, more than half(62.6%) of the study respondents disagreed with the utilization of youth-friendly reproductive health services while only a few(1.7%) agreed on the utilization of youth-friendly reproductive health services. regarding knowledge on the utilization of youth-friendly reproductive health services, close to half(42.1%) of the study respondents strongly disagreed with the utilization of youth-friendly reproductive health services, While only a few(2.1%) agreed on the utilization of youth-friendly reproductive health services.

Table 5: Descriptive Statistics on Knowledge and Attitude Factors

Variable	Categories	Frequency	Valid Percentage%
Sex has risk	Yes	190	80.9
	No	45	19.1
Aware of SRH problems	Yes	196	83.4
	No	39	16.6
Attitude(total score)	A	4	1.7
	N	30	12.8
	D	147	62.6
	SD	54	23
Knowledge(total score)	SA	19	8.1
	A	5	2.1
	N	24	10.2
	D	88	37.4
	SD	99	42.1

4.6:Bivariate and Multivariate Analysis of Knowledge and Attitude Factors

4.6.1 Unsafe sex has risks and utilization of youth-friendly reproductive health services.

As indicated in Table 6 below, concerning being aware of whether unsafe sex has risks, more than a quarter(40%) of the study respondents who reported utilizing reproductive health services reported being aware that unsafe sex has risks while more than half(60%)of the study respondents who reported not utilizing youth-friendly reproductive health services were also aware that unsafe sex has risks. When the bivariate analysis was done there was no significant relationship between being aware of whether unsafe sex has risk and the utilization of youth-friendly reproductive health services($X^2=0.075, df=1, p=0.785$). Similar findings were also reported in a study done in Egypt(Abd El-Mawgod et al., 2020). This was contrary to a study done in Sri Lanka where youths who were aware that unsafe sex has risks were 3 times more likely to utilize youth-friendly reproductive health services(Agampodi et al., 2008).

4.6.2 Awareness of SRH problems and utilization of youth-friendly reproductive health services.

As indicated in Table 6 below, close to half(44.4%) of the study respondents who reported utilizing youth-friendly reproductive health services were aware of sexual reproductive health problems. Only a few(20.5%) of the study participants who had reported utilizing youth-friendly reproductive health services were not aware of sexual reproductive health problems. When the chi-square test for independence was done there was a statistical association between being aware of sexual reproductive health problems and utilizing youth-friendly reproductive health services($X^2=7.699, df=1, p=0.006$). this was also consistent in the multivariate analysis where being aware of sexual reproductive health problems was found to be an independent factor in utilizing youth-friendly reproductive health services(p=0.01). Furthermore, those who were aware

of reproductive health problems were 2.9 times more likely to utilize youth-friendly reproductive health services as compared to their fellow counterpart. These findings were consistent with two other studies done in China and Brazil(Borges et al., 2021; Feng et al., 2020).

4.6.3 Attitude and Utilization of Youth-Friendly Reproductive Health Services.

As indicated in Table 6 below, concerning attitude, half(50%) of the study respondents had a good attitude toward the utilization of youth-friendly reproductive health services while close to half(46.3%) of the study respondents who reported utilizing youth-friendly reproductive health services had a bad attitude. There was no significant association between attitude and utilization of youth-friendly reproductive health services when the bivariate analysis was done($X^2=3.429$, $df=3$,$p^*=0.325$). these findings were consistent with a study done in Kenya which found no association between the two parameters(Mutua et al., 2020).

4.6.4 Knowledge and Utilization of Youth-Friendly Reproductive Health Services.

As indicated in Table 6 below, concerning knowledge, close to three quarter(73.7%) of the study respondents had a good knowledge of the utilization of youth-friendly reproductive health services while close to half(40.4%) of the study respondents who reported utilizing youth-friendly reproductive health services had a poor attitude. There was a significant association between knowledge and utilization of youth-friendly reproductive health services when the bivariate analysis was done($X^2=13.912$,$df=4$,$p^*=0.006$). These findings were also consistent in the binary logistic regression(p=0.02).furthermore study respondents who had good knowledge concerning reproductive health services were 3 times more likely to utilize these services as compared to their fellow counterparts .this findings were consistent with a study done in Kenya and Tanzania(Mutua et al., 2020; Nkata et al., 2019).

Table 6: Bivariate Analysis of Knowledge and Attitude Factors

Independent variable	Categories	Dependent variable (Utilization of RHS)		Statistical significance (Chi-square test)
		Yes (N=95)	No (N=140)	
Being aware of unsafe sex has a risk	Yes	76(40%)	114(60%)	X^2=0.075
	No	19(42.2%)	26(57.8%)	df=1
				P=0.785
Aware of SRH problems	Yes	87(44.4%)	109(55.6%)	X^2=7.699
	No	8(20.5%)	31(79.5%)	df=1
				P=0.006
Attitude(total score)	A	2(50%)	2(50%)	X^2=3.429
	N	8(26.7%)	22(73.3%)	df=3
	D	60(40.8%)	87(59.2%)	p*=0.325
	SD	25(46.3%)	29(53.7%)	
Knowledge(total score)	SA	14(73.7%)	5(26.3%)	X^2=13.912
	A	2(40%)	3(60%)	df=4
	N	5(20.8%)	19(79.2%)	p*=0.006
	D	31(35.2%)	57(64.8%)	
	SD	95(40.4%)	140(59.6%)	

P*= fischers exact test

Table 7: Multivariate Analysis of Knowledge and Attitude Factors

Step 1a	Variables	B	S.E	Wald	Df	Sig	Exp(B)	95% C.I for EXP(B)	
								Lower	Upper
	knowledge			11.168	4	.025			
	knowledge	-1.206	.56	4.57	1	.03	3	.099	.905
	knowledge	.295	.937	.099	1	.75	1.34	.214	8.433
	knowledge						ref		
	Aware of sex risk	-1.060	.43	6.082	1	0.014	2.9	.149	.806
							ref		
	Constant	**1.170**	**0.430**	**7.420**	**1**	**0.006**	**3.223**		

4.7 Descriptive Statistics on Social-Cultural Factors

Table 8 below provides descriptive statistics on the social and cultural factors influencing the utilization of youth-friendly reproductive health services. regarding myths and misconceptions, close to three quarters (72.3%)of the study participants reported experiencing myths and misconceptions, this could be linked to the presence of harmful cultural practices which are against the utilization of youth-friendly reproductive health services, close to a quarter(27.7%) of the study respondents reported not experiencing myths misconception linked to reproductive health services. regarding fear instilled by family members towards seeking reproductive health services, more than half(61.3%) of the study respondents reported experiencing fear indicating that family units have a key role in seeking reproductive health services. more than three quarter(38.7%) of the study participants reported not experiencing fear related to reproductive health services. the majority(80.4%) of the study participants reported a lack of community mobilization campaigns encouraging the utilization of youth-friendly reproductive health services, this could be linked to the presence of strong traditional cultural beliefs that are against these services, only a few(19.6%) of the study respondents reported the presence of community mobilization campaigns. Regarding the influence of religion on the utilization of reproductive health services, close to three quarters (74.5%) of the study respondents reported that religion played less role in the utilization of these services, this could be linked to religion having less role in influencing the utilization of reproductive health services. only a few(25.5%) of the study respondents reported the role of religion in the utilization of reproductive health services. more than half(53.6%) of the study participants acknowledged that peer pressure didn’t influence the utilization of reproductive health services while close to half(46.4%) of the study respondents reported that peer pressures prevented them from seeking reproductive health services.

Table 8: Descriptive Statistics on Social cultural factors

Variable	Categories	Frequency	Valid Percentage%
Myth and misconceptions	yes	170	72.3
	no	65	27.7
Fear	yes	144	61.3
	no	91	38.7
Community mobilization campaign	yes	46	19.6
	no	189	80.4
Religion influence	yes	60	25.5
	no	175	74.5
Peer pressure	yes	109	46.4
	no	126	53.6

4.8 Bivariate and multivariate analysis of social-cultural factors

4.8.1 Myth and Misconception and Utilization of Reproductive Health Services

As indicated in Table 9 below, more than half(54.1%) of the study participants who reported not utilizing youth-friendly reproductive health services reported experiencing myths and misconceptions which indeed acted as a barrier to the utilization of these services. only a few(26.2%) of the study participants who utilized youth-friendly reproductive health services reported not experiencing myth and misconception. During the bivariate analysis, there was a significant statistical association between the utilization of youth-friendly reproductive health services and myth and misconception

($X^2=7.599, df=1, P=0.006$).however, this was not consistent with the multivariate analysis where myths and misconceptions were found not to be statistically significant(p=0.28).

These findings were consistent with the qualitative data where the majority of the respondents noted that

"I would say we have harmful myths and misconceptions which have a strong foundation in our society. You find that as a youth you might be wanting to seek these services, let says like VCT and family planning services, but then we have misconceptions that make us not seek these services despite them being available. These things are deep-rooted and are highly affecting us as youths".

These findings were consistent with another study done in Kenya where myths and misconceptions were found to influence the utilization of youth-friendly services(Embleton et al., 2023). However, another study done in Ethiopia found no association between myths and misconceptions and the utilization of youth-friendly services(Amaje et al., 2022).

4.8.2 Community Mobilization Campaign and Utilization of Reproductive Health Services

As indicated in Table 9 below, the majority(78.3%) of the study respondents who reported having used youth-friendly reproductive health services reported the presence of community mobilization campaigns while more than half(68.8%) of the study participants who reported not having used youth-friendly reproductive health services reported absence of community mobilization campaigns. When the chi-square test for independence was done there was a statistical association between community mobilization campaigns and utilization of youth-friendly services(X^2=33.997,df=1, P=0.000). These findings were consistent with the multivariate analysis where community mobilization campaigns were found to be an independent factor for the utilization of youth-friendly reproductive health services(p=0.00). Furthermore, the presence of a community mobilization campaign increased the odds of utilizing reproductive health services by 4.7.

This finding was consistent with the qualitative data where one of the key informants noted that

"*The presence of these community mobilization campaigns has a key role in the utilization of the reproductive health services, you find that, the youth gets a lot of knowledge and awareness on the existence of these services and why they need to utilize them. The presence of these services encourages the eradication of fear of bad traditions within the community. There is a need to ensure more effort on this campaign to enhance increased uptake of these services"*

These findings were in harmony with the other two studies done in Ethiopia(Belay et al., 2021a; Teferi et al., 2022). The presence of community mobilization campaigns increased awareness and benefits of youth-friendly reproductive health services. this was contrary to a study done in Kenya which found no association(Embleton et al., 2023).

4.8.3 Fear and Utilization of Reproductive Health Services

As indicated in Table 9 below, more than a quarter (39.6%) of the study respondents who utilized reproductive health services reported experiencing fear instilled by their family members and the community. more than half(60.4%) of the study respondents who did not use reproductive health services reported experiencing fear instilled by the family and community members regarding these services and this could be the reason why they never utilized these services. during the bivariate analysis, there was no statistical association between fear and the utilization of youth-friendly reproductive health services(X^2=0.11,df=1,p=0.741). These findings were in agreement with a study done in Tanzania where fear was found not to influence the utilization of youth-friendly reproductive health services(Nkata et al., 2019). However, another study done in Uganda, was not in harmony with these findings as it revealed that study participants who experienced fear

from immediate family members related to reproductive health services were 4 times less likely to seek the utilization of these services(Ssebadduka & Nanyingi, 2021).

4.8.4 Religion Influence and Utilization of Reproductive Health Services

As indicated in Table 9 below, the majority(70%) of the study respondents who reported using youth-friendly reproductive health services reported that religion had a role. Religion has for a long time been used as a tool to convey information related to health matters and as a result, it has a big role in whether a particular service is utilized or not. Close to a quarter(30.3%) of the study respondents who utilized reproductive health services reported that religion had no role in the uptake of these services. during the chi-square test for independence, there was a significant statistical association between the use of reproductive health services and religious influence ($X^2=29.262, df=1, P=0.000$). this was consistent with the binary logistic regression results where religious influence was statistically significant(p=0.00). presence of religious influence increased the odds of utilizing reproductive health services by 3.6.

These findings were not in agreement with the qualitative findings as the majority of the respondent noted that

"I would say, today religion has not prioritized health matters as compared to the earlier days and this could be linked to a lack of health education and promotion forums in churches. Don't forget the church is a youth catchment area where it's easy to convey information related to reproductive health matters. I feel church leaders should do something to capture this area which will have a lot of benefits to the youths and the adolescents"

These research findings were in agreement with a study done in Nigeria where religious influence was found to increase the uptake of youth-friendly reproductive health services(Femi-Adebayo et al., 2019). However, this was contrary to two other studies done in Zambia and in Kenya which found no association between religious influence and the utilization of youth-friendly reproductive health services(Edwards et al., 2021; Mutua et al., 2020).

4.8.5 Peer Pressure and Utilization of Reproductive Health Services

As indicated in Table 9 below, close to half(47.7%) of the study respondents who reported not utilizing reproductive health services reported the presence of peer pressure in deterring the utilization of these services. harmful peer pressure has a key role in preventing youths and adolescents from seeking the appropriate reproductive health care services that have key benefits for them. On the contrary, only a few(30.2%) of the study participants who utilized youth-friendly reproductive health services reported an absence of peer pressure. During the bivariate analysis, there was a significant statistical association between peer pressure and the utilization of youth-friendly reproductive health services($X^2=11.89, df=1, p=0.001$). This was consistent with multivariate analysis where peer pressure was found to be an independent factor for the utilization of youth-friendly reproductive health services(p=0.02). Furthermore, youths and adolescents who reported experiencing peer pressure were 2 times less likely to utilize the youth-friendly reproductive health services as compared to their fellow counterparts.

These findings were in harmony with the qualitative data where the majority of the discussants in the focused group discussion noted that:

"*I would say peer pressure is a key thing affecting youths and it has a role in the use of the reproductive health services. for instance, we create fear among us on the matter related to HIV*

testing and even measures related to HIV and STI prevention. It is very easy to fall into traps if you have friends who tell you to do bad things. Again I feel there is a need to choose your friends wisely since they can build or destroy you…"

These findings were in agreement with other two studies done in Ethiopia and Kenya where the presence of peer pressure was found to prevent the utilization of youth-friendly reproductive health services(Amaje et al., 2022; Mutua et al., 2020). This was contrary to a study done in Ghana which revealed no association between peer pressure and the utilization of youth-friendly reproductive health services(Asare et al., 2020).

Table 9: Bivariate Analysis of Social-Cultural Factors

Independent variable	**Categories**	**Dependent variable (Utilization of RHS)**		**Statistical significance (Chi-square test)**
		Yes (N=95)	**No (N=140)**	
Myth and misconception	yes	78(45.9%)	92(54.1%)	X^2=7.599
	no	17(26.2%)	48(73.8%)	df=1 P=0.006
Fear	yes	57(39.6%)	87(60.4%)	X^2=0.11
	no	38(41.8%)	53(58.2%)	df=1 P=0.741
Community mobilization campaign	yes	36(78.3%)	10(21.7%)	X^2=33.997
	no	59(31.2%)	130(68.8%)	df=1 P=0.000
Religion influence	yes	42(70%)	18(30%)	X^2=29.262
	no	53(30.3%)	122(59.7%)	df=1 P=0.000
Peer pressure	yes	57(52.3%)	52(47.7%)	X^2=11.89
	no	38(30.2%)	88(69.8%)	df=1 P=0.001

Table 10: Multivariate Analysis of the Social-Cultural Factors

Step 1a	Variables	B	S.E	Wald	Df	Sig	Exp(B)	95% C.I for EXP(B)	
								Lower	Upper
	Presence of a Mobilization campaign	-1.55	.422	13.52	1	0.00	4.7	.093	0.485
							ref		
	Presence of Peer pressure	0.732	.303	5.84	1	0.02	2	.266	.971
							ref		
	Presence of Religion influence	-1.29	.357	13.05	1	0.00	3.6	.137	.555
							ref		
	Myths & misconception	-.384	.353	1.19	1	0.28	0.68	.341	1.359
							ref		
	Constant	**1.651**	**0.34**	**23.93**	**1**	**0.00**	**5.21**		

4.9:Descriptive Statistics on Health System Factors

Table 11 below provides descriptive statistics concerning health system factors. Regarding the presence of a reproductive health facility, the majority(73.6%) of the study respondents reported the absence of reproductive health facilities in their localities, this could be linked to the poor devolvement of health care services across the country and especially in rural areas. only a few (26.4%) of the study participants reported the presence of reproductive health facilities in their localities. The majority (70.2%) of the study respondents reported having sort or visited reproductive health facilities to seek available services, this could be linked to their reproductive age which prompts the seeking of these services. Close to a quarter(29.8%)of the study respondents reported not having visited any reproductive health facility. Regarding health care workers' altitude, close to three quarters (69.4%) of the study respondents reported experiencing bad health workers' attitude when seeking reproductive health services, while close to a quarter(30.6%) of the study respondents reported to have not experienced bad attitude from health care workers. Concerning the use of unfriendly language by healthcare workers, the majority(83.4%) of the study respondents reported encountering the use of unfriendly language when seeking youth-friendly reproductive health services. Only a few(16.6%) of the study respondents reported not encountering the use of unfriendly language by healthcare providers. More than half(60.9%)of the study participants reported that their privacy was safeguarded when seeking youth-friendly reproductive health services while more than a quarter(39.1)of the study respondents reported their privacy not being safeguarded. Regarding distance taken to seek reproductive health facilities, close to half(49.8%) of the study respondents reported experiencing longer distances while more than half(50.2%) of the study participants reported not experiencing long distances to reach youth-friendly reproductive health facilities. Concerning the length of the distance taken to seek

reproductive health services, more than a quarter (39.3%) of the study respondents reported health facilities being far while only a few(12.8%) reported reproductive health facilities being nearby. A quarter(33.3%) of the study participants reported, reproductive health facilities being a quiet distance from where they lived.

Table 11: Descriptive Statistics on Health System Factors

Variable	Categories	Frequency	Valid Percentage%
Presence of the RH facility	Yes	62	26.4
	No	173	73.6
Visited RH facility	Yes	165	70.2
	No	70	29.8
Alittute of health care workers	Yes	163	69.4
	No	72	30.6
Use of Unfriendly language	Yes	196	83.4
	No	39	16.6
privacy	Yes	143	60.9
	No	92	39.1
Distance to RH facility	Yes	117	49.8
	No	118	50.2
Length of the distance	nearby	15	12.8
	near	17	14.5
	far	46	39.3
	Quit a distance	39	33.3

4.10 Bivariate and multivariate analysis of health system factors

4.10.1 Presence of Reproductive Health Facilities and Utilization of Reproductive Health Services

As indicated in Table 12 below, more than half(56.5%) of the study respondents who reported to have utilized youth-friendly reproductive health services reported the presence of a reproductive health facility in their locality, more than half(65.3%) of the study respondents who reported absence of a reproductive health facility reported not to have used youth-friendly reproductive health services. this could be linked to the absence of these facilities that offer these reproductive health services. during the bivariate analysis, there was a statistically significant association between the presence of a reproductive health facility and the utilization of youth-friendly reproductive health services($X^2=8.982, df=1, p=0.003$). this was consistent with the multivariate analysis where the presence of a reproductive health facility was found to be an independent factor for the utilization of youth-friendly reproductive health services(p=0.008). Furthermore, the presence of reproductive health facilities increased the odds of utilization of youth-friendly reproductive health services by 2.4.

These findings were in agreement with the qualitative data where one of the key informants noted that:

"I would say where there are reproductive health facilities there is a higher likelihood majority of the youth living in those areas will make use of the necessary services provided in that particular facility, so I feel the government should put more effort to facilitate the presence of this health center which will ultimately result into a healthy environment"

These findings were in agreement with those of the other two studies done in Kenya and Ghana where the presence of reproductive health facilities was found to increase the utilization of youth-friendly services(Asare et al., 2020; Mutua et al., 2020). This was contrary to a study done in Namibia which found no association between the presence of reproductive health facilities and the utilization of youth-friendly reproductive health services(Muyenga, 2017).

4.10.2 Privacy and Utilization of Reproductive Health Services

As indicated in Table 12 below, close to half(47.6%) of the study respondents who utilized youth-friendly reproductive health services reported the presence of privacy during the provision of these services. close to three-quarters(70.75) of the study respondents who reported not using youth-friendly reproductive health services reported an absence of privacy at the healthcare facility. During the chi-square test for independence, there was a statistically significant relationship between privacy and the utilization of youth-friendly reproductive health services($X^2=7.704, df=1, p=0.006$). this was consistent in the binary logistic regression analysis as privacy was found to be statistically significant (p=0.04). from this study absence of privacy reduced the odds of utilizing youth-friendly reproductive health services by 2.

This was in harmony with the qualitative data where the majority of the discussants noted that:

" Lack of privacy is a common thing in the majority of these hospitals, you will find you have been diagnosed with STI or even HIV, and with no time everybody is aware of your condition even without you leaking the information. Lack of privacy is something that makes us not seek these important services. I feel something should be done to curb the problem"

These findings were in agreement with other two studies done in Kenya and Tanzania where lack of privacy reduced the odds of using reproductive health services, youths are very sensitive to their

private health information and it has to be safeguarded with a lot of privacy(Embleton et al., 2023; Nkata et al., 2019). However, this was contrary to a study done in Ethiopia which found no association between privacy and the utilization of youth-friendly reproductive health services(Amaje et al., 2022).

4.10.3 Healthcare Providers' Attitude and Utilization of Reproductive Health Services

As indicated in Table 12 below, close to half(46.6%) of the study respondents who reported utilizing youth-friendly reproductive health services cited the presence of bad attitudes from healthcare providers, and only a few(26.4%) of the study participants who had utilized youth-friendly reproductive health services cited the absence of bad attitudes from the health care providers. During the bivariate analysis, there was a statistically significant association between health workers' attitudes and utilization of youth-friendly reproductive health services ($X^2=8.492, df=1, p=0.004$). this was consistent with multivariate analysis where healthcare providers' attitude was found to be an independent factor for the utilization of youth-friendly reproductive health services(p=0.017). Furthermore, the presence of bad healthcare providers' attitudes reduced the odds of utilizing youth-friendly reproductive healthcare services by 2. Bad attitude tends to repel youths and adolescents from seeking these essential health services as they tend to have a fear of rejection.

These findings were in agreement with the qualitative data where the majority of the discussants in the focused group discussion noted that

"Health care worker's attitude has a key role whether we seek for this reproductive health services or not. Trying to imagine you have gone for HIV testing and met a health care worker with a bad attitude. If things go south you might end up being hurt to the extent of thinking of committing

suicide .so I feel a doctor's attitude is of importance as far as the provision of this services is concerned"

The study findings were in agreement with a study done in Nigeria and Kenya where the presence of a bad attitude was found to influence the utilization of youth-friendly reproductive health services(Abuosi & Anaba, 2019; Akila et al., 2023). this was contrary to a study done in Ethiopia which found no association between healthcare workers' attitudes and the utilization of youth-friendly reproductive health services(Teferi et al., 2022).

4.10.4. Distance to a Reproductive Health Facility and Utilization of Reproductive Health Services

As indicated in Table 12 below, regarding distance taken to access a reproductive health facility, more than half(50.4%) of the study respondents who reported utilizing reproductive health services cited traveling long distances to access a reproductive health facility, only a few(30.5%) of the study respondents who reported utilizing reproductive health services traveled short distances to access reproductive health facilities. during the chi-square test for independence, there was a statistical significance between distance to a reproductive health facility and the utilization of youth-friendly reproductive health services ($X^2=9.679, df=1, p=0.002$). however, this didn't replicate in the binary logistic regression(p=0.08)

This was contrary to the qualitative findings where the majority of the discussants in the focused group discussions noted that

"When these health facilities are far from us, it is problematic as we can not access them easily a factor that discourages us from seeking these essential reproductive health services. I feel a lot

needs to be done even if it is ensuring we have mobile reproductive health services since we keep on relocating with our animals in search of green pasture"

These findings were in agreement with a study done in Zimbabwe where long distance was not found to be associated with the utilization of reproductive health services, this could be linked with the presence of mobile reproductive health services or these facilities being close to the users(Muchabaiwa & Mbonigaba, 2019). However another study was done in Ghana, and long-distance reduced the odds of utilizing reproductive health services by 4(Abuosi & Anaba, 2019).

4.10.5 Visiting a Reproductive Health Facility and Utilization of Reproductive Health Services

As indicated in Table 12 below, the majority(77.1%)of the study respondents who reported not utilizing youth-friendly reproductive health services had never visited a reproductive health facility. Close to half(47.9%) of the study participant who reported using youth-friendly reproductive health services had paid a visit to a reproductive health facility. During the bivariate analysis, there was a statistically significant association between visiting a reproductive health facility and utilizing youth-friendly reproductive health services (X^2=12.777,df=1,p=0.000). This was in agreement with the multivariate analysis where visiting a reproductive health facility was found to be an independent factor for utilizing youth-friendly reproductive health services(p=0.001).

This was not in agreement with the qualitative findings where one of the key informants noted that:

" I would say youths paying a visit to a health care facility does not necessarily mean they will use this youth-friendly reproductive health services, you find people seek services when they need

them, yes, they might visit the hospital but for other medical reasons.so I would say it's a personal decision on whether to use this reproductive health services or not"

These findings were in agreement with another study done in Vietnam where visiting a health facility was found to increase the odds of utilizing youth-friendly reproductive health services(Khanh Chi et al., 2021). This could be linked to the motivation of utilizing health care services that are of benefit to the youths and of which the majority are provided for free. However, These findings were not in harmony with a study done in Brazil which found no association between the two factors(Taquette et al., 2017).

4.10.6 Use of Unfriendly Language and Utilization of Reproductive Health Services

As indicated in Table 12 below, concerning the use of unfriendly language by healthcare workers, more than half(57.7%) of the study participants who reported having never used youth-friendly reproductive health services reported the use of unfriendly language by healthcare providers. Close to half(42.3%) of the study respondents who reported using youth-friendly reproductive health services reported the use of unfriendly language by healthcare workers. When the bivariate analysis was done, there was no statistical association between the utilization of youth-friendly reproductive health services and the use of unfriendly language($X^2=1.810, df=1, p=0.178$). These findings were in agreement with another study done in Ghana(Abuosi & Anaba, 2019). However, these findings were not in harmony with another study in Malawi which revealed that the use of unfriendly language reduced the odds of seeking reproductive health services by 5(Self et al., 2018).

Table 12:Bivariate Analysis of Health System Factors

Independent variable	Categories	Dependent variable (Utilization of RHS)		Statistical significance (Chi-square test)
		Yes (N=95)	No (N=140)	
Presence of the RH facility	Yes	35(56.5%)	27(43.5%)	X^2=8.982
	No	60(34.7%)	113(65.3%)	df=1 P=0.003
Visited RH facility	Yes	79(47.9%)	86(52.1%)	X^2=12.777
	No	16(22.9%)	54(77.1%)	df=1 P=0.000
Alittute of health care workers	Yes	76(46.6%)	87(53.4%)	X^2=8.492
	No	19(26.4%)	53(73.6%)	df=1 P=0.004
Use of Unfriendly language	Yes	83(42.3%)	113(57.7%)	X^2=1.810
	No	12(30.8%)	27(69.3%)	df=1 P=0.178
Privacy	Yes	68(47.6%)	75(52.4%)	X^2=7.704
	No	27(29.3%)	65(70.7)	df=1 P=0.006
Long Distance to RH Facility	Yes	59(50.4%)	58(49.6%)	X^2=9.679
	No	36(30.5%)	82(69.5%)	df=1 P=0.002

Table 13:Multivariate analysis of health system factors

Variables	B	S.E	Wald	Df	Sig	Exp(B)	95% C.I for EXP(B)	
							Lower	Upper
Presence of RH facility	-.87	0.33	6.94	1	0.008	2.4	.220	.801
						ref		
Having visited RH facility	-1.13	.34	10.88	1	.001	3.1	.285	1.079
						ref		
Healthcare worker attitude	0.707	.296	5.692	1	0.017	2.1	.276	0.881
						ref		
Absence of privacy	0.632	0.31	4.18	1	0.041	2	0.290	0.974
						ref		
Presence of long distance	0.589	.339	3.015	1	0.08	.555	.285	1.079
Constant	**2.634**	**0.46**	**33.43**	**1**	**0.00**	**13.92**		

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.0 Introduction

This section provides the summary of the research, conclusions, and recommendations as directed by the research findings.

5.1 Summary

From this study, the utilization of youth-friendly reproductive health services was 40.6% which was way less compared to the national target. The most utilized youth-friendly reproductive health services were VCT(96.8%) and family planning(76.6%). In the social demographic factor, the following variables were found to be significantly associated with the utilization of youth-friendly reproductive health services; age, gender, marital status, and the schooling status of the study respondents, in the knowledge and attitude factor objective, the following variables were found to be significantly associated with the utilization of youth-friendly reproductive health services; being aware of reproductive health problem and knowledge. Under the social-cultural factors, the following variable was found to be significantly associated with the utilization of youth-friendly reproductive health services; myths and misconceptions, the presence of community mobilization campaigns, the presence of religious influence and peer pressure, and lastly in the health system factor the following variables were found to be significantly associated with the utilization of youth-friendly reproductive health services; health care workers attitude, level of privacy at the health facility, presence of long distances, whether the study respondent had visited a reproductive health facility and the presence of a reproductive health facility.

5.2 Conclusion

In this study, the utilization of youth-friendly reproductive health services was 40.6%. VCT was the most utilized youth-friendly reproductive health service. In the social demographic factors, Being male and single in the marital status category reduced the odds of utilizing youth-friendly reproductive health services. Under the Knowledge and attitude objective, being aware of RH problems and having good knowledge increased the odds of youth-friendly reproductive health services, under the social-cultural factors, the presence of peer pressure reduced the odds of utilizing youth-friendly reproductive health services while the presence of religious influence and community mobilization campaign increased the odds of utilizing youth-friendly reproductive health services, lastly in the health system factors, presence of an RH facility and having visited an RH facility increased the odds of utilizing youth-friendly reproductive health services while healthcare providers bad attitude and lack of privacy reduced the odds of utilizing youth-friendly reproductive health services.

5.3 Recommendation

1. The Ministry of Health and the county government with other relevant stakeholders should provide regular training to designated healthcare providers to improve their attitude and the need to preserve healthcare seekers' privacy.
2. The Ministry of Health and the county government with other relevant stakeholders Should ensure there are adequate reproductive health facilities to enhance the uptake of these services
3. The county government and other relevant stakeholders Should ensure there is adequate provision of health education and promotion campaigns to enhance the utilization of youth-friendly health services which will in turn eradicate stigma related to reproductive health services.
4. Relevant stakeholders such as church and religious leaders should play a key role in informing youths and adolescents of youth-friendly reproductive health services since they have a key influence.

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APPENDICES

Introduction

This section provides the consent form, questionnaires, key informant and focused group guides, map of the study area, ERC certificate, Nacosti license, introductory letter, and other permits from the county.

Appendix I: Consent Form

My name is Halima Dahir, a master's student at Mount Kenya University. Am undertaking a study to examine the factors affecting the scaling-up utilization of reproductive health services among adolescents & youth in pastoral in Samburu County, Kenya. This research proposal is critical to strengthening the provision of reproductive health to youths and adolescents as it will generate new knowledge in this area that will inform decision-makers to make research-based decisions.

Procedure to be followed

Participation in this study is voluntary. The respondents have a right to ask any question about this study at any point in the study. Study respondents have a right to pull out of the study without any repercussions.

Discomforts and risks.

Some questions that will be asked to your might be uncomfortable to answer .youhave a right to pull out of the study without any consequences. The interview will take about 20 minutes of your time to be completed

Benefits

Participating in this study will help to strengthen the provision of procreative health services among youths in Kenya. This research will be at the front line of strengthening better health and service delivery, especially in the field of reproductive health.

Rewards

No form of reward will be provided to partake in this research

Confidentiality

The unique character will be used in place of your name when recording the questionnaire,

Participant's Statement

The purpose of this study has been elaborated to me and has met my degree of understanding. participating in this study has been made clear is voluntary. I am aware that my records will be kept cloistered and that I can leave the study at any time.

Name of Participant: …… **Date**……..

Signature……

Investigator's Statement

I, the signatories have clarified to the volunteer in a language s/he understands the measures to be followed in the research and the risks and benefits involved.

Name of Interviewer

Date……. **Interviewer** **Signature**……

Appendix 2: Research questionnaire

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

PART A

Name of Interviewer……

Interview date_____/_____/____(DD/MM/YYYY)

PART B: Social Demographic Information. -

SECTION I: General Information

1. What is your age? .....

2. What is your gender

1. Male [ ]
2. Female [ ]

3. What is your marital status?

A) Single [ ] B)Separated [ ]

C)Married [ ] D)Windowed [ ]

4. What is your religion?

a) Muslim [ ]
b) Catholic [ ]
c) Protestant [ ]
d) Traditional [ ]
e) Others [ ]

5. Are you currently in school

Yes [ ]

No [ ]

6. The highest education attained

a)No formal education [ ]

b)Primary [ ]

c)Secondary [ ]

d)vocational(technical) school [ ]

e)University [ ]

7. Is your parent or parents still alive

A. Yes [ ]
B. No [ ]

8. If yes for question 7 above, are they employed

A. Yes [ ]
B. No [ ]

9. If yes to question 8 above, what is/are his/her occupational(more than one response is possible)

A. Formal employment [ ]
B. Farmer [ ]
C. Casual labor [ ]
D. Self-employment [ ]
E. Not employed [ ]

UTILIZATION OF YOUTH-FRIENDLY REPRODUCTIVE HEALTH SERVICE

10. Have you ever made use of any youth-friendly reproductive health services

A. Yes [ ]
B. No [ ]

11. If yes for question 10, which youth-friendly reproductive health services have you made use of?

A. VCT services [ ]
B. STIs treatment [ ]
C. Diagnosis and management [ ]
D. MCH services [ ]
E. Counseling [ ]
F. Family planning [ ]

REPRODUCTIVE HEALTH KNOWLEDGE

12. Have you started receiving your menstrual periods/ wet dreams?

A. Yes [ ]
B. No [ ]

13. Have you had any sexual relationships in the past or present

A. Yes [ ]
B. No [ ]

14. If yes to question 13 above was it consensual

A. Yes [ ]
B. No [ ]

15. If yes for question 13 above was it protected

A. Yes [ ]
B. No [ ]

16. If yes to question 13 above how many sexual partners have you had in the past 12 months

……..

17. Do you think sex has risks

A. Yes [ ]
B. No [ ]

18. If yes for question 17 above, which ones do you know of? (tick all that apply)

A. Unwanted pregnancy [ ]
B. Physical trauma [ ]
C. Sexually transmitted infections and HIV [ ]
D. Reproductive tract cancer [ ]
E. Suffering from the stigma associated with sex and its risk [ ]

19. Have you ever heard about sexual and reproductive health problems

A. Yes [ ]
B. No [ ]

20. If yes, how did you get to know about this

A. Print media [ ]
B. Audiovisual(TV) [ ]
C. Hospital [ ]
D. Church [ ]
E. Friends [ ]
F. Audios(radio) [ ]

21. Are you aware of any sexual reproductive health problems encountered by youths

A. Yes [ ]
B. No [ ]

22. If yes for question 21 above. Which of the following sexual reproductive health problem are you aware of

A. STIs and HIV/AIDS [ ]
B. Infertility [ ]
C. Reproductive health cancers [ ]
D. Unsafe abortions [ ]
E. Unwanted pregnancies [ ]

23. To what range are you in agreement with the following reports on reproductive health knowledge using the following Likert Scale (1 – SA, 2 – agree, 3 – neutral [not sure], 4 – D, 5 – SD.

Statement	**1**	**2**	**3**	**4**	**5**
Do you know what reproductive health is?					
Are you aware of what is included in procreative health?					
Do you think a girl can get pregnant in the first sexual intercourse?					
Do you think a girl can get pregnant during her period?					
In your view, can condoms have expiration dates?					
In your view, do youths n adolescents use contraceptives methods					
In your view, STDs can be prevented by using contraceptives					

24. Attitudes Toward RH

To what extent do you agree with the following declarations on procreative well-being utilization using the following Likert Scale (1 – SA, 2 – agree, 3 – neutral [not sure], 4 – D, 5 – SD

Statement	**1**	**2**	**3**	**4**	**5**
Sex before marriage is acceptable					
For a woman, having numerous sex partners is an sign of her attractiveness					
Having an infant during early age is a sign of maturity					
Refraining from sex is difficult during adolescence.					
Using a condom during sexual contact reduces sexual pleasure.					
The use of contraceptives causes bareness among women					
Family planning prevents undesirable pregnancies.					
I would be too embarrassed to buy or find condoms.					
My partner would reject me if I asked him/her to use condoms					
Females are accountable for safety during sexual intercourse.					
My friends do not believe in using contraception.					
My friends do not believe in using condoms					
I feel shy to go for the services at the FP clinic.					
Sometimes I feel embarrassed with physical/genital examinations particularly					

HEALTH SYSTEM FACTORS

25. Is there a sexual and reproductive health facility in your area

A. Yes [ ]

B. No [ ]

26. Have you ever visited any reproductive health facility

A. Yes [ ]

B. No [ ]

27. Did you miss any of the sexual reproductive health services that you required

A. Yes [ ]

B. No [ ]

28. Can the judgmental attitude of health workers affect youths from the utilization of RH services?

A. Yes [ ]

B. No [ ]

29. does unfriendly language and being shouted at by the HWCs deter youths from the utilization of RH services?

A. Yes [ ]

B. No [ ]

30. does lack of privacy at the FP clinics deters youths from the utilization of RH services?

A. Yes [ ]

B. No [ ]

31. Do long distances deter youths from the utilization of RH services?

A. Yes [ ]

B. No [ ]

32. If yes to question 31, how far is the sexual reproductive health service facility from your area

A. Nearby [ ]

B. Near [ ]

C. Far [ ]

D. Quite a distance [ ]

33. Can The unfriendliness of health care staff at the FP clinics deter youths from the utilization of RH services?

A. Yes [ ]

B. No [ ]

SOCIOCULTURAL FACTORS

34. Do myths and misconceptions prevent youths from the utilization of SRH

A. Yes [ ]

B. No [ ]

35. Does fear of the family and the community by youth seeking SRH services and information from the health facilities prevent the utilization of SRH

A. Yes [ ]

B. No [ ]

36. Are there Community mobilization campaigns that promote the utilization of SRH

A. Yes [ ]

B. No [ ]

37. Does your religion encourage the utilization of SRH

A. Yes [ ]

B. No [ ]

38. Does peer influence prevents you from seeking SRH

A. Yes [ ]

B. No [ ]

Appendix 3:Focused Group Discussion Guide

My name is Halima Dahir Ali a student at Mount Kenya University partaking in a master's degree in public health(epidemiology and disease control). I'm researching factors influencing the utilization of youth-friendly reproductive health services among the youths in Samburu County, Kenya. I would like to take about 30-40 minutes of your time to get your opinions on the subject matter.

1. In your own opinion, how are the utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
2. In your own opinion, what are the social demographic characteristics influencing the utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
3. In your own opinion, what are the knowledge and altitude factors utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
4. In your own opinion, what are the health facility factors influencing the utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
5. In your own opinion, what are the social-cultural factors utilization of reproductive health services among youths in pastoral in Samburu County Kenya?

Appendix 4:Key Informant Interview

My name is Halima Dahir Ali a student at Mount Kenya University partaking in a master's degree in public health(epidemiology and disease control). I'm researching factors influencing the utilization of youth-friendly reproductive health services among the youths in Samburu County, Kenya. I would like to take about 10-15 minutes of your time to get your opinions on the subject matter.

1. In your own opinion, how are the utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
2. In your own opinion, what are the social demographic characteristics influencing the utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
3. In your own opinion, what are the knowledge and altitude factors utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
4. In your own opinion, what are the health facility factors influencing the utilization of reproductive health services among youths in pastoral in Samburu County Kenya?
5. In your own opinion, what are the social-cultural factors utilization of reproductive health services among youths in pastoral in Samburu County Kenya?

Appendix 5: Ethical Clearance Certificate

Mount Kenya University

REF: **MKU/ISERC/2580**

Date: 27 January 2023

TO: **HALIMA DAHIR ALI**

REG: **MPH/2017/75455**

Dear Sir/Madam,

RE: ASSESSMENT OF FACTORS INFLUENCING UTILIZATION OF YOUTH-FRIENDLY REPRODUCTIVE HEALTH SERVICES AMONG THE YOUTHS IN SAMBURU COUNTY, KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **1653.** The approval period is **24/01/2023 - 23/01/2024.**

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 **Mount Kenya University**
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 **Mount Kenya University** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** 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 **Mount Kenya University**

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

Yours sincerely,

The Chairman
Mount Kenya University
Ethics Review Committee
P.O. Box 342 - 0100, Thika

Dr. Peter G. Kirira
Chairman, Mount Kenya University ISERC

Main Campus, General Kago Road, P.O. Box 342-01000 Thika.
Tel: 020-2878 000, Cell: +254 709 153 000

Appendix 6: Introduction Letter

Mount Kenya University

DIRECTORATE OF GRADUATE STUDIES

MPH/2017/75455

26th January, 2023

National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki Way, Upper Kabete,
P.O Box 30623- 00100
NAIROBI, KENYA

Dear Sir/Madam,

RE: HALIMA DAHIR ALI – REGISTRATION NO. MPH/2017/75455

The purpose of this letter is to introduce the above named student who is pursuing **Master of Public Health** in the department of **Epidemiology and Biostatistics** in the school of **Public Health.**

The title of the research is **"Assessment of Factors Influencing Utilization of Youth – Friendly Reproductive Health Services Among the Youths in Samburu County, Kenya."**

It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **January, 2023 and March, 2023.**

Any assistance accorded to the student will be highly appreciated.

Thank you.

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Director
Graduate Studies

Dr. Samuel M. Karenga, Ph.D
Director, Graduate Studies
Enc.

Appendix 7: NACOSTI LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **104968**

Date of Issue: **17/March/2023**

RESEARCH LICENSE

This is to Certify that Ms.. HALIMA DAHIR ALI of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Samburu on the topic: ASSESSMENT OF FACTORS INFLUENCING UTILIZATION OF YOUTH-FRIENDLY REPRODUCTIVE HEALTH SERVICES AMONG THE YOUTHS IN SAMBURU COUNTY, KENYA for the period ending : 17/March/2024.

License No: **NACOSTI/P/23/23947**

104968

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.

See overleaf for conditions