AWARENESS, ACCESSIBILITY AND PREFERENCES OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENT GIRLS AGED 15-24 YEARS ON MANAGEMENT FOR ABORTION COMPLICATIONS AT THE KENYATTA NATIONAL HOSPITAL

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DECLARATION

This research work and dissertation is my original work and to the best of my knowledge it contains no materials previously published or written by another person. It has not been submitted for award of a degree in any other university. References to work done by others have been clearly indicated.

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ABBREVIATIONS

WHO World Health Organization

STI Sexually Transmitted Infections

HIV Human Immunodeficiency Virus

KDHS Kenya Demographic Health Survey

SRH Sexual and Reproductive Health

SRHS Sexual and Reproductive Health Services (include *universal access to accurate SRH information, safe contraceptive methods, sensitive counselling, quality obstetrics and antenatal care and prevention and management of sexually transmitted infections including HIV*)

OPERATIONALIZATION OF TERMS

Adolescent: a young person between 10-19 years in a transition period from childhood to adulthood as per WHO, however as growth continues well into early 20's with increased delay in societal milestones. Centre for adolescent health, Royal Children's Hospital 2018 (39) recommended that definition be broadened to 10-24 years. This is the definition used in this study.

Awareness: Awareness refers to knowledge or perception of a fact/situation. Awareness is an important prerequisite to utilization. The components include knowledge of where to get sexual and reproductive health (SRH) services, perception on accessibility and acceptability of SRHS and preferences of service delivery

Access: Access is defined as '*the ability to gain entry into a system and receive the needed services from a competent service provider so as to achieve the desired goal*'.

Acceptability: the quality of being accepted/tolerated. Acceptable means sufficient to serve the purpose for which it is provided.

Sexual and Reproductive Health Services: refers to health services that cater to the reproductive needs and concerns. It has various components including: universal access to accurate sexual and reproductive health information, safe contraceptive methods, sensitive counselling, quality obstetrics and antenatal care and prevention and management of sexually transmitted infections including HIV

Abortion: termination of a pregnancy before it is viable, that is prior to 20 weeks gestation or a foetus born weighing less than 500g (*WHO).* Possible types include: spontaneous or induced, missed (now known as anembryonic pregnancy), threatened, incomplete, complete and inevitable

ABSTRACT

Background: Adolescence is a period of transition from childhood to adulthood. It is typically regarded as 10-19 years of age however, as evidence shows that growth continues well into early 20's, the definition used in this study was 10-24 years (as recommended by Centre for adolescent health) (39). It is a time of experimentation where young people encounter a myriad of problems including unintended pregnancies, unsafe abortions, HIV and other sexually transmitted infections. This exposes them to several short-term complications and long term complications which carry on into their early 20's and can sometimes be lifelong. Despite the advancements in sexual and reproductive health service provision, the rate of unintended pregnancies, unsafe abortions and HIV acquisition is still high. This study aimed to determine the awareness, access and preferences of sexual reproductive health services among adolescent girls.

Objective: To determine the level of awareness, accessibility, acceptability of sexual and reproductive health (SRH) services and preferences of SRH service delivery among adolescent girls managed for abortion complications at the Kenyatta National Hospital.

Methodology: This was a cross sectional descriptive study using mixed methods. Qualitative and quantitative approaches were used to evaluate sexual and reproductive health (SRH) services among adolescent girls being managed for abortion complications at Kenyatta National Hospital using semi-structured interviewer administered questionnaire and two focus group discussions (6-8 girls each) respectively. Quantitative data was collected and entered in an excel sheet then analysed using SPSS® (Statistical Package for Social Sciences) version 21.0. Data from focus group discussions were tape-recorded, transcribed and thematic analysis performed.

Results: Between July and November 2019, 90 adolescent girls managed for abortion complications were screened, and 100% enrolled in the study. Awareness of SRH services among adolescent girls was generally low (approximately 64%) except for VCT services (84%). VCT services were the most accessed SRH service (88.9%) and mainly at public health facilities (90%). Physical accessibility of public facilities was also highest (83%) with available SRHS found to be financially accessible to majority of adolescent girls (approximately 60%). Acceptability of the available SRH services was high (>90%) but quality of service indicators were generally low (42%). In the preference of type of service delivery, the participants mainly preferred integrated SRH services (54.4%) with 83% citing reduced trips to the health facility and opportunity to receive additional health services being the most common perceived advantages of integrated SRH services. 72% cited that the main disadvantage for this delivery model being that the health provider would be too busy.

Conclusions: From the results of this study, it can be concluded that awareness of sexual and reproductive health services was generally low among adolescent girls managed for abortion complications in KNH. Perceived accessibility of SRH services was also generally low among this demographic. Acceptability of available SRH services was generally high however, quality of service indicators were generally low and participants cited that available services were just general and not adolescent/youth-focused. Integrated SRH services are more preferable among adolescent girls however this in the face of specialized adolescent SRH services being very few in our setting.

Recommendations: Based on the study findings, there is need for innovative approaches to establish adolescent-focused SRH services and increase awareness of these services. There is need

to take measures that improve the accessibility and awareness on accessibility of SRH services among young people. There is need to improve quality of SRH services among adolescents in order to increase acceptability of these services. There is need to introduce and educate adolescents and young people on options on the methods of service delivery in order to enhance choice and accessibility to SRH services.

Key words: Adolescent, Sexual and Reproductive Health services, Abortion management

CHAPTER ONE: INTRODUCTION

Adolescence is a period of transition from childhood to adulthood marked by exploration, experimentation and discovery. It is defined by the World Health Organization (WHO) as those between 10-19 years. Youth are defined as persons between 15 to 24 years of age and young people as 10 to 24 years (1). For this study we will use the age range 10-24 years, a definition of the age of adolescence as per Professor Sawyer of the Centre for adolescence in the Royal College. Irrespective of the adopted definition, majority of these young people become sexually active during this period exposing them to a myriad of problems including unintended pregnancies, unsafe abortions, HIV and other sexually transmitted infections. Despite this the use of contraceptives is low leading to increased burden of disease in young people (2).

In Kenya, adolescents make up nearly quarter of the population (24%) (3)(4) and a quarter of the world's population (5). It is reported that 15% of women in Kenya aged 20-49 years had their first sexual encounter by 15 years, 50% by 18 years and 71% by 20 years of age. Thus this is the primary age group of debut indulgence into sexuality. According to KDHS, early childbirth still remains a challenge in Kenya with almost quarter of women giving birth by 18 years and nearly half by 20 years. Adolescent pregnancy is still high with 18% of adolescents 15-19 years pregnant with their first child or already mothers-this has remained unchanged from the KDHS 2008/2009 and KDHS 2014. Unsafe abortions are also high with young people constituting 49% of patients treated with severe complications from approximately 500,000 induced abortions performed in Kenya in 2012 (6). A recent study showed that girls below 19 years accounted for 17% of all those seeking post-abortion services and 45% of all severe abortion-related complications in hospitals. This problem is not unique to Kenya as globally, every year 3.9 million girls unsafe abortions were procured in adolescents 15-19 years. It is estimated that about 70,000 maternal deaths annually (13%) are due to unsafe abortions (7).

In order to avert the atrocities associated with adolescent sexuality, there is need for accessible and acceptable SRHS (8) so as to increase utilization of the same among young people. Many adolescents may not be aware of SRHS or lack access to integrated SRH youth-friendly services due to social and economic barriers (9). This therefore creates a great need for evaluation to enable institutionalization of appropriate youth-oriented interventions.

CHAPTER TWO: LITERATURE REVIEW

2.1. INTRODUCTION

Adolescent and youth sexual and reproductive health is essential in ensuring young people are both healthy and productive which leads to a productive nation. This entails adolescent and youth reproductive health services being made readily accessible and acceptable to young people, as well as creating awareness of the available services and the need for them. Awareness refers to knowledge or perception of a fact/situation. Awareness is an important prerequisite to utilization. The components of awareness include *knowledge of where to get SRH services, perception on accessibility and acceptability of SRHS and preferences of service delivery*. For effective and efficient utilization of these services, they must be made accessible and acceptable to young people and their preference on service delivery is also a key consideration. Access is defined as '*the ability to gain entry into a system and receive the needed services from a competent service provider so as to achieve the desired goal*'(10). In the context of SRHS, the desired goal in access is improvement or preservation of reproductive health. Given the magnitude of SRH-related morbidity and mortality, this concept has clearly been elusive.

Awareness of Sexual and Reproductive Health Services among adolescents and associated determinants

As alluded to above, awareness means the knowledge or perception of a fact/situation. Awareness is an important prerequisite to utilization of the components of SRH services including knowledge of where to get SRH services, perception on accessibility and acceptability of SRH services and preferences of service delivery. It may be influenced by demographic, economic, socio-cultural and health system factors, as well as the level of knowledge among adolescents. Young people may lack knowledge on sexual and reproductive health and fail to understand the risks of engaging in casual relationships and unsafe sexual practices. They also may not know the importance of seeking reproductive health care services or fail to know the SRH services available and where they can access these services or lack access to them (11).

Demographic factors such as age, also play an important influence on awareness, access, acceptability and use of SRHS. Amelia et al 2018 in Nigeria (12) found that older adolescents accessed SRHS more than their younger counterparts and those with secondary school education also accessed SRHS more frequently. Similar findings have been reported in the KDHS 2014 report (13). High cost of treatment and poverty greatly curtails access and use of SRHS among young people (12) and similar findings were found by Taylor et al 2015 in S. Africa (14). Environmental factors such as cultural and religious beliefs may influence adolescents' view on SRHS. Positive talks in the community would promote the value of health services which lead to increased acceptability and use of health services, while disapproval of these services may youth from seeking SRHS.

Health system factors may also play a vital role. Favourable national policies, conducive facility environment, improved delivery of youth-responsive services would greatly improve the quality of services and improve acceptability (15). Restrictive laws and policies based on age and marital status also prevent a large number of young people from accessing SRH services. Health provider

attitude is also a major determinant (16). Manoti et al 2015 in Kenya (17) investigated the access of SRHS among undergraduate students and found that there was lack of adolescent and youth-friendly activities in most health facilities.

Access to Sexual and Reproductive Health Services among adolescents and associated determinants

Accessibility is a fundamental aspect of utilization of health services. Accessibility in health care refers to the ability to gain entry into a system and receive the needed health services from a health provider. Tenets of access include *knowledge of existence of services, ability to reach the services and use them, and perception on usability of services*. To ensure that SRH services are adequately accessible to young people, young people need to be aware that these services are available, they need to be able to reach them and to use them, and they must have a good perception about usability of SRH services among adolescents and young people. Accessibility in health care can be based on physical access (ability to reach the health facility and get the services) and financial access (ability to afford the health services). Barriers to accessing SRHS among adolescents and young people is still a major challenge to effective and efficient utilization of these services. Senderowitz et al 2003 in USA (18) cited lack knowledge on available services, lack of awareness of location of SRHS facilities and fear of stigmatization (19) as some of the reasons why young people failed to seek SRHS. In a study done by Degefa et al in Ethiopia (19)-(31) assessing the utilization and factors affecting adolescent and youth friendly RH services among secondary school students showed that the utilization level was only 38.5% and most participants were unaware of any type of adolescent and youth sexual reproductive health (AYSRH) service.

Barriers to utilization of SRHS can be related to *availability, accessibility, acceptability and equity of health services*. In many developing countries, SRHS for young people can be *unavailable* due to restrictive laws and policies e.g. regulations to forbid the provision of family planning methods to unmarried young people (18). Frehiwot et al 2005 in Ethiopia found that a number of adolescents found existing services inaccessible, unacceptable and unaffordable (22,23). *Inaccessibility* of SRH services may be due to lack of knowledge of facilities, lack of knowledge of what services are offered (11) and even high cost of services (22). *Unacceptability* of SRH services maybe due to fear about lack of confidentiality, fear of unfriendly (14), judgmental, negative (23)(24) or even incompetent health care providers (19). *Inequity* of SRH services is still a big problem in Kenya where 75% of all health facilities offer family planning/RH services, however, majority of these facilities are located in the urban areas (25). As majority of young people live in rural, semirural and informal settlements, this poses a great unmet need for SRHS (3). *Operational barriers* at the health facilities may also influence access of SRH services among young people. Erulkar et al 2006 in Ethiopia revealed that long waiting time and inadequate provider and client interactions hampered adolescent's use of YFRHS (26). This concurred with the findings of Akinyi et al 2003 in Kenya (14).

Acceptability of Sexual and Reproductive Health Services among adolescents and young people

Acceptability is an important component of utilization. Defining acceptability is not straightforward but it can refer to the patients' assessment of adequacy, suitability and effectiveness of treatment (27). It can also refer to health workforce characteristics and ability to treat all patients with dignity, create trust and promote demand for services (8). Acceptability can also relate to the satisfaction of the services received. It is increasingly being recognized as a key consideration in the design, implementation and evaluation of healthcare delivery systems and considerations. For an intervention to be successful it must be acceptable to both the deliverers (e.g. healthcare workers) and the recipients (e.g. the patients). If SRH services are considered acceptable by young people, they are more willing to seek the services and adhere to treatment thus benefitting from improved health outcomes (30,31). If the health care providers have low acceptability of delivering a certain SRH service, they may fail to deliver it or it may not be delivered as intended leading to poor impact and effectiveness of the intervention (30,32). Acceptability can be assessed by: general client satisfaction, client willingness to return to clinic, health provider demographics (age, gender), whether the client would recommend clinic to a friend (31) and if the community supports provision of adolescent-targeted SRH services (32). Availability of confidentiality and privacy is also important to enhance acceptability of SHRS including ensuring that the client's consultation is private, lack of frequent interruptions during consultation (33) and confidential handling of tests.

Preference of type of Sexual and Reproductive Health Service delivery among adolescents and young people

In Kenya, adolescent and youth SRH has been recognized as a priority within the Kenya Essential Package of Health (KEPH)(34). While there is increasing attention to creation of youth-friendly reproductive health services, there is little research conducted among adolescents in developing countries to assess their preference in accessing SRH services and what characteristics they value most. Surveys done in Kenya and Zimbabwe, adolescents rated confidentiality, short-waiting time, low cost and friendly staff as the most important characteristics in choosing their reproductive health services (26). With the call for integration of SRH and HIV services, there is also a great need to investigate integration of SRH services among young people and determine their preference for integrated or stand-alone SRH services.

Integrated SRH services refer to multiple services offered in the same facility or by the same provider while stand-alone services refer to a single service offered at a given facility. Integrated SRH services offer a more holistic point of care for the client as they can access all the needed services at one visit. A stand-alone service may be required when a temporary measure is needed where the primary health care system is weak; to give rapid responses; to address the needs of a hard-to-reach population or to deliver complex, highly skilled services. Evidence on the benefits of stand-alone and integrated health services is limited as relatively few studies have exhaustively investigated that aspect (11). An integrated approach may improve health outcomes in certain instances, e.g. HIV/AIDS, and may reduce the barriers young people face in accessing SRH services; while stand-alone services may offer better accountability, more rapid results and greater service concentration. However, both systems may have demerits. Stand-alone services may lead to duplication of services, create barriers to access and impair effective use of scarce resources

(35), while effectiveness of integrated services can be hindered by inadequately trained staff and resource shortage (36).

Research done in the United States shows that there is a great need for integration of SRH services among young people due to the disproportionately high rates of unintended pregnancy, HIV and STIs among them (37). In spite of the call for integrated SRH services among young people, the preference of stand-alone or integrated SRH services from their perspective still remains elusive. This presents a great need to investigate the preferences of young people in accessing SRHS including the preferred type of service delivery, and their personal recommendations on how to enhance awareness, accessibility and acceptance these services.

Conclusion

The gaps in adolescent and youth sexual and reproductive health care are many, deserving special attention to meet their needs through strengthening of health systems. The WHO calls for Universal Health Coverage (UHC) which refers to providing all people with access to needed quality and affordable health services. It provides renewed attention in meeting adolescent health-care needs through the strengthening of health systems. UHC requires accessible and acceptable interventions for improving adolescent health and that young people, health care providers and other stakeholders are aware of these services (38). With improved awareness and accessibility of SRHS, utilization of SRHS among adolescents and young women should increase, resulting in improved reproductive health outcomes.

2.2. PROBLEM STATEMENT

Adolescents constitute a large proportion of the population however their sexual and reproductive health needs are often unacknowledged or unmet in many parts of the world. This puts them at high risk of SRH problems including unwanted pregnancies, unsafe abortions, sexually transmitted infections, HIV/AIDS and early marriages. The increasing rate of SRH problems among young people is alarming, especially in Sub-Saharan Africa. This is despite the recognition of youth-friendly reproductive health services as a mean to improve their access and utilization of SRH services to attain quality SRH. Efforts to attain quality SRH among young people are constrained by poor quality adolescent SRH services as well as inadequate awareness, accessibility and acceptability of these services. This contributes to poor utilization of SRHS among the adolescents and youth translating into negative SRH outcomes. In spite of the global promotion of SRH services availability, several young people still lack these services in many sub-Saharan African countries. Several factors affect the awareness, accessibility, acceptability and use of SRH services among adolescents including sociodemographic factors, education, socioeconomic and health system factors.

Due to the increasing rates of sexually transmitted infections including HIV/AIDS among young people in Kenya, it is paramount to investigate the awareness, accessibility and acceptability of SRH services among adolescents, including their preference to the type of service delivery. This

study will aim at improving our understanding of the adolescent girls' needs and their perception on SRHS and help to better tailor the available SRH services to suit their needs.

2.3. RATIONALE

Awareness is an important prerequisite to utilization of the components of SRH services including knowledge, perceived accessibility, acceptability and preferences of service delivery. Despite high attention on adolescent health and the developments made in availing adolescent reproductive health services, there is still a gap in awareness, accessibility and use of these services and a hiatus in objective studies investigating the same among young people. In spite of several interventions targeted at enhancing adolescent friendly reproductive health services, adolescent-targeted sexual and reproductive health services are not universal and are still deficient and stigmatizing in many areas. In sub-Saharan Africa many young people still face the highest SRH problems such as high prevalence of STIs with over half of all new HIV infections occurring in young people, mostly girls. Adolescent childbearing rates are still high globally as well as the rate of unmet need for contraception. About half of all adolescent pregnancies are unintended and more than half end in abortion, often under unsafe, illegal conditions (39).

Adolescent SRH is an important public health determinant globally. Awareness of both need and presence of SRH services is necessary to enhance utilization of these services. There is great need to understand the circumstances of young women's awareness, acceptance and access of SRH services to ensure that their SRH needs are met. However, there is resistance in acceptance of adolescent targeted SRH from policy level (unfavourable health policies) to public level (lack of community acceptance). There appears to be barriers to acceptance due to negative attitudes and laxity of the authorities and the secrecy that surrounds these services. It is thus important to understand and contextualize the factors that hinder access and utilization of SRH services. Understanding these barriers and the removal of the same will ultimately result in better access and use of SRH services among adolescents. This will lead to improved health outcomes among young people leading to greater productivity and we as a country will capitalize on our demographic dividend.

There is need to determine preferences of SRH service delivery modes among young people. This is particularly important with the recent debates of whether integrated or stand-alone SRH services are better for adolescents. This particular aspect, to the best of my literature search, has yet to be investigated in our setting. In spite of the progress made in developing adolescent friendly SRH services, there is still a huge gap in young people accessing and utilizing these services predisposing them to chronic morbidity and mortality. Therefore, there is still need to assess adolescent's preferences to better tailor these services to address their SRH problems. This study aims to further shed light on adolescent RH health by determining the preference of SRH service delivery and the determinants of awareness, accessibility and use of SRHS among adolescent girls who are often the culprits of deficient SRHS and the benefactors of available, accessible and quality SRH services.

2.4. CONCEPTUAL FRAMEWORK

A: NARRATIVE

Several factors influence the level of awareness of SRH services. These include individual factors such as age, marital status; environmental factors such as peer influence, cultural beliefs, parent-child communication and external interventional programs. Demographic and economic factors such as the level of education, residence, parental income and health system factors such as health policies and government regulations also play a role. In addition, SRH information sources and the challenges in accessing SRH information are also important influences on the level of awareness. The overall effect of these factors is to determine the level of awareness, accessibility and acceptability of these services.

If the level of awareness is high with increased accessibility and acceptability of these services, there will be a subsequent improvement in utilization of these services leading to improved sexual and reproductive health outcomes. This leads to healthy and productive young people.

However, if the level of awareness of SRHS is low among adolescent girls coupled with poor accessibility and acceptability of these services, their utilization will be low leading to poor SRH outcomes culminating in mortality or chronic morbidity in these young women such as sexually transmitted infections, pelvic inflammatory disease, chronic pelvic pain or infertility in their later years. To prevent this, there is need for positive intervention measures to improve awareness, accessibility, acceptability and utilization of SRHS among young women at the critical point of their lives. With investigation of adolescents' preferences on SRH service delivery types and their recommendations to improve these services, policies can be developed to enhance the available SRHS and provide quality adolescent-responsive SRH services.

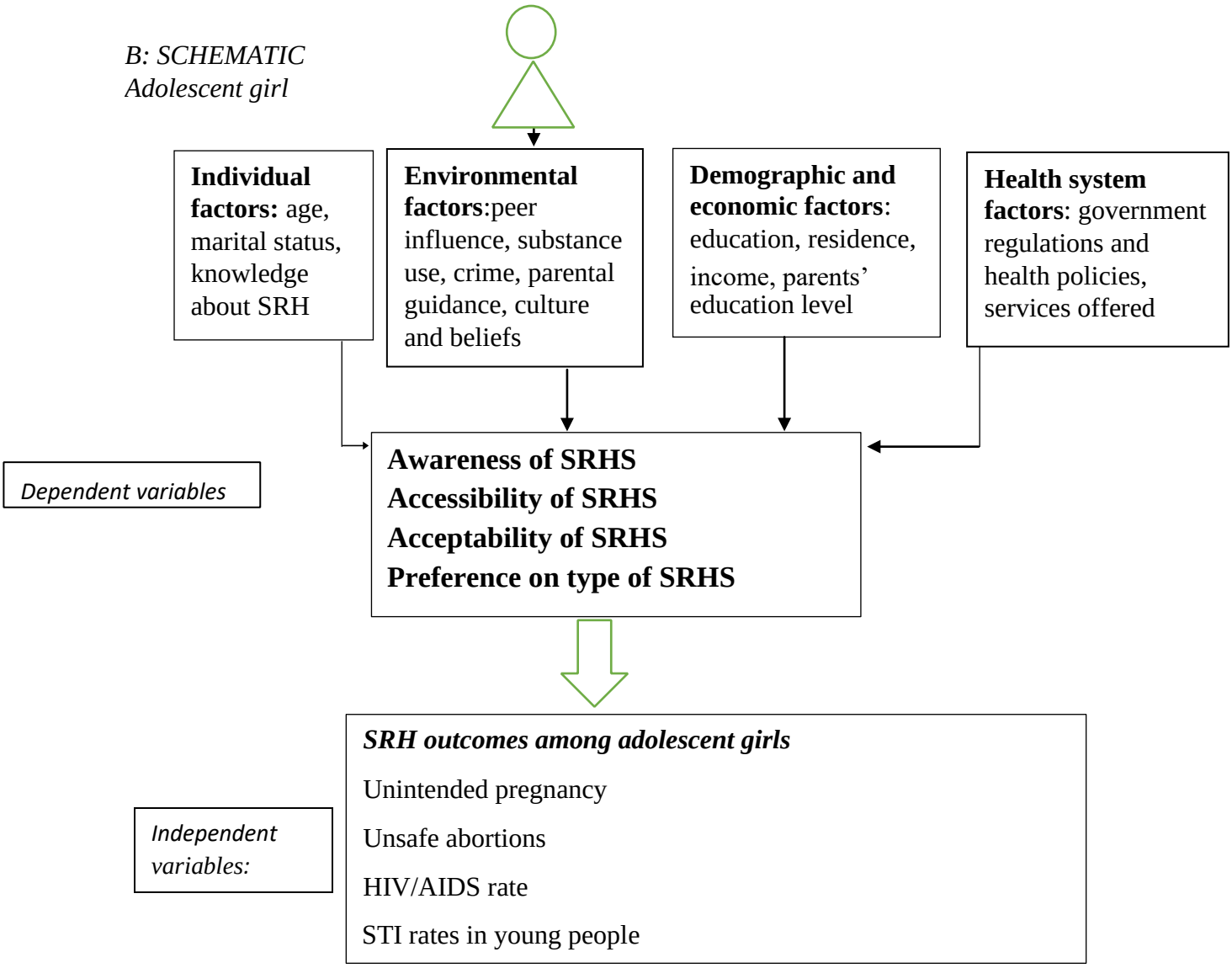


Figure 1

2.5. RESEARCH QUESTION

What is the level of awareness, accessibility and preferences of sexual and reproductive health (SRH) services among adolescent girls on management for abortion complications at the Kenyatta National Hospital (KNH) from July to November 2019?

2.6. OBJECTIVES

2.6.1. BROAD OBJECTIVE

To determine the level of awareness, accessibility and preferences of sexual and reproductive health (SRH) services among adolescent girls on management for abortion complications at the Kenyatta National Hospital (KNH) from July to November 2019

2.6.2. SPECIFIC OBJECTIVES

Among the adolescent girls undergoing management of abortion-related complications at the Kenyatta National Hospital, the following aspects related to awareness of SRH services will be determined:

1. The level of awareness on sexual and reproductive health (SRH) services
2. Perceived level of accessibility to sexual and reproductive health (SRH) services
3. Acceptability of sexual and reproductive health (SRH) services utilized
4. Preference on the type of SRH service delivery

2.7. SCOPE OF STUDY

This study was conducted at the Kenyatta National Hospital and focused on evaluating the awareness, access and acceptability of SRH services, as well preferences of the type of service delivery among adolescent girls seeking care for abortion related complications at KNH. Awareness is an important prerequisite to utilization of the components of SRH services including knowledge, perceived accessibility, acceptability and preferences of service delivery. In this study the aim was to investigate whether the participants were aware of sexual and reproductive health services, whether these services were accessible to them, if they had any challenges in accessing these services and if yes, what they were and to evaluate their preferences on how they would like the services to be delivered to them. The findings of this study will inform to increase awareness of sexual and reproductive health services, increase access and acceptability of these services with increased satisfaction among young people receiving these services. It will also help tailor sexual and reproductive health services to better meet the needs of this young people.

2.8. ASSUMPTIONS

- That adolescent sexual and reproductive health services were existent as per government policy and that they were accessible. It also assumed that young people were free to receive these services
- It assumed that adolescent girls and young women being managed for abortion can be generalized to represent majority of young people. It is assumed that for them to have conceived they were sexually active and therefore they would represent those young girls who were at highest risk of reproductive health problems
- Even though it was not explicit that there were distinct stand-alone and integrated health services, it assumed that these services should be available e.g. integrated services are all found under one roof, for example VCT (Voluntary Counselling and Testing) services, STI management services and family planning provision

CHAPTER THREE: METHODOLOGY

3.1. STUDY DESIGN

This is a descriptive mixed methods cross sectional study. In order to enrich the results, a qualitative component was added. The descriptive portion forms the main component of the study and enables quantification of the problem in an area that is poorly studied while the qualitative portion explores the perceptions of the study population. The results will therefore form a platform upon which analytical and interventional studies can be based and rationalized.

3.2. STUDY SETTING

The study was conducted in Kenyatta National Hospital (KNH), the main national referral hospital in Kenya which also forms the campus for the University of Nairobi, Kenya Medical Training College. It has a bed capacity of 1800 beds and approximately 40,000 patients are seen in the outpatient department per month. It also has a youth centre that was started in 1990 as a project funded by pathfinder international. It was handed over to KNH in 2000. At the Accident and Emergency (A&E) department, females of all ages with sexual and reproductive health issues are seen in Room 5. Participants were recruited from the acute gynecological ward and A&E department once stabilized. These study sites primarily see female patients presenting for reproductive health care. In the acute gynecological ward about 25 patients are usually admitted per month for abortion related care and of these, about 10 are below 20 years of age (approximately 40%). Majority of the adolescent girls admitted are between 16-19 years of age with the youngest patient admitted being thirteen years of age in 2018. In the A&E department, out of those who received care for abortion complications per month, approximately 30% were below 20 years of age (about 15-20 girls per month). Majority ranged between 16-19 years of age. The study participants were recruited from the A&E department and the acute gynecology ward once stabilized. Therefore, these sites provided adequate numbers of the targeted population and served as a centre of convergence of many reproductive health issues including abortion related health care.

3.3. STUDY POPULATION

The study population consisted of adolescent girls (15-24 years old) who presented at KNH for management of abortion complications. The population constituted adolescent girls who are at highest risk of adverse sexual and reproductive outcomes, and hence were the ideal target population for the interventions. They were recruited at the A&E department while those who were admitted to the acute gynecology ward for further management were recruited there. The site of the treatment was dictated by the severity of morbidity, the diagnosis and the anticipated mode of intervention. This population was generalized to the general population of adolescent girls and young women who are sexually active. This population was therefore apt since it was the population that was affected by adverse sexual and reproductive health outcomes and thus became relevant in the study context.

3.3.1. Inclusion criteria

Adolescent girls aged 15-24 years who were managed for abortion complications who assented and consented in participating in the study. Parental/guardian consent was not necessary as the study participants who had history of a pregnancy are considered emancipated minors.

3.3.2. Exclusion criteria

Adolescent girls who were managed for conditions other than abortion complications. Those who were too sick to participate in the study for example, those who were taken directly to the Intensive Care Unit (ICU) or the High Dependency Unit (HDU)

3.4. TARGET POPULATION

The population of interest constituted adolescent girls between the ages of 15-24 years of age who were managed for abortion complications at the Kenyatta National Hospital. As KNH is very near the Central Business District and serves to a majority of the Kenyan population, many adolescents seek health care at this facility. On average about 20 adolescent girls per month are usually seen at the A&E department and approximately 15 are usually managed in the Acute Gynecological ward for abortion relate care in a month. Therefore, the target population was equated to approximately 35 adolescent girls per month who were seen for abortion related care. As the study period was estimated to be approximately 4 months, the target population equated to about 140 adolescent girls and young women who came in for abortion related care during that period.

3.5. SAMPLE SIZE

Sample size calculation for finite population.

$$n = \frac{Nz^2pq}{E^2(N-1) + z^2pq}$$

n = Desired sample size

N = population size (number of adolescent girls managed for abortion complications at the Kenyatta National Hospital is approximately 30 per month, and for 3 months of the study duration the total was approximately 90).

Z = value from standard normal distribution corresponding to desired confidence level (Z=1.96 for 95% CI)

p = expected true proportion (estimated at 50%, currently there are no known studies that have looked at this population of interest in this context therefore it was assumed that the proportion of awareness of sexual and reproductive health services amongst this population to be at 50%)

$$q = 1 - p$$

E = desired precision (0.05)

$$n = \frac{90\ x\ 1.96^2\ x\ 0.50\ x\ 0.50}{0.05^2(90-1) + (1.96^2\ x\ 0.50\ x\ 0.50)} = 73$$

Add on 10% (to account for those were eligible but failed to assent/parents failed to give consent) therefore the sample size was 80

The study therefore required a sample size of 80 adolescent girls managed for abortion complications at the Kenyatta National Hospital.

The study period for data collection was expected to be 4 months since approximately 30 adolescent girls are usually managed for abortion complications at the study sites however not all would assent/consent to participate to be in the study.

3.6. SAMPLING PROCEDURE

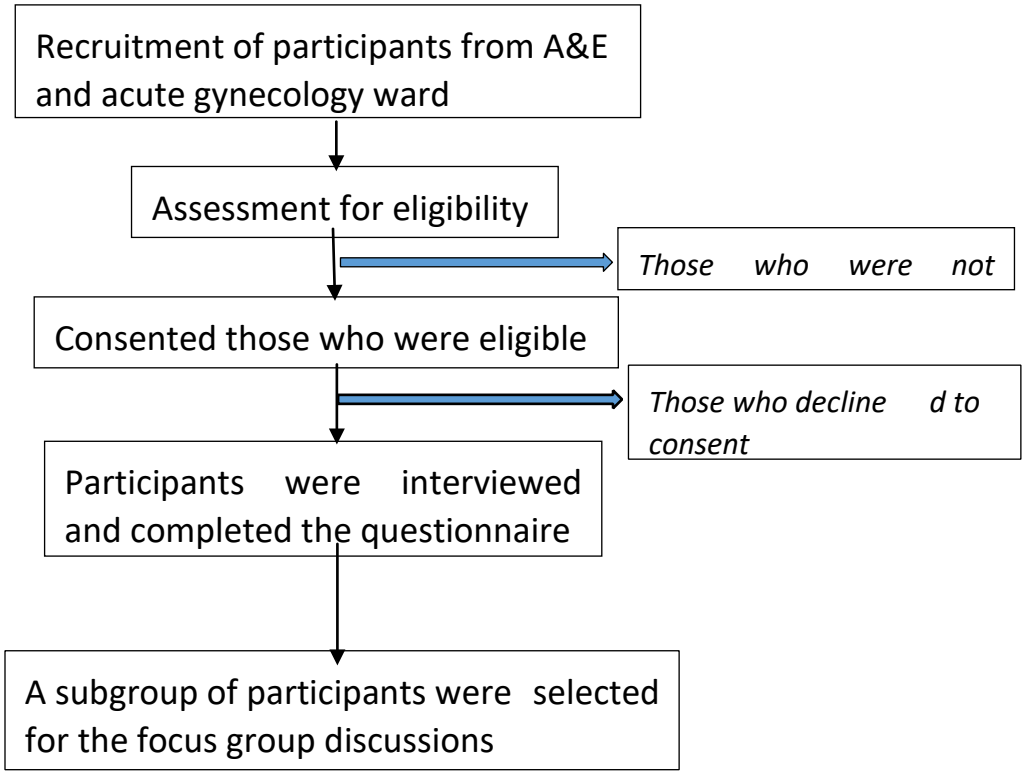


Figure 2

3.7. DATA VARIABLES

Table 3.7. 1: Outcomes/ Exposure variables as per specific objectives

	Objective	*Outcome variable*	*Exposure variable*	*Sources of data*
I	*To determine the level of awareness on sexual and reproductive health services*	Level of awareness on SRHS	• Availability of SRHS • Need for SRHS • Understanding of SRH problem dimensions	Questionnaire Focus group discussion (FGD)
II	*To determine the perceived level of accessibility of sexual and reproductive health (SRH) services*	Perceived level of accessibility of SRHS	• Services accessed • Distance to facilities • Convenient opening hours • Youth-only hours • Cost of services • Social media presence for education and services • Barriers on access	Questionnaire FGD
III	*To determine the acceptability of sexual and reproductive health (SRH) services*	Acceptability of SRHS	• General client satisfaction of service received • Acceptability of adolescent SRHS among parents and community • Attitude towards adolescent SRH services available • Health provider demographics (age, gender) and attitude • Client willingness to return to clinic • Confidentiality and privacy (availability of space, confidential handling of tests)	Questionnaire FGD
IV	*To assess preferences on the type of SRH services (Integrated versus stand-alone care)*	Preferences of service delivery	• Available SRH services • Type of SRH services (Integrated versus stand-alone SRH services) • Preference on staff characteristics and competency	Questionnaire FGD

3.8. DATA COLLECTION

3.8.1. Recruitment and training of research assistants

The principal investigator recruited three (3) research assistants were working in the KNH Reproductive Health Unit. They were young, able to fit in among the youth and were approachable so that the participants would feel comfortable talking to them. A two-day recruitment training

was held for the research assistants during which they were informed on the purpose of the study, the methodology and selection of participants, administration of informed consent, administration of the questionnaire and how to conduct the focus group discussions. A day's training was conducted on the supervision of data collection. The research assistants were also involved in the pilot study and pretesting of the questionnaire to assess the validity and reliability of the questionnaire and the focus group discussion interview guide. They were also trained on how to check the study instruments for completeness.

3.8.2. Pilot study and pretesting

A pilot study was carried out during which the study instruments were pretested among adolescent girls and young women who had given birth in the postnatal wards in KNH (a number approximately 10% of the target population). The study instruments were then examined for clarity, ambiguity, and analysability and appropriate adjustments made. Those who participated in the pilot study were exempted from the final participation to avoid recall bias.

3.8.3. Data collection process

a) Questionnaire

The adolescent girls who presented to KNH for abortion related care were recruited on a voluntary basis from the acute gynecology ward and the A&E department. They were informed about the study, its objectives, risks and benefits. Those willing to participate were requested to provide verbal and written consent before administration of the questionnaire. Where possible, consent from the parents and guardians was obtained. The adolescent girls and young women were recruited up until the sample size was reached. The questionnaire was filled in a private room. The questionnaire was administered and a code used for each of them. Due to the sensitive nature of the data collected, no names were used on the questionnaires. Double participant recruitment was prevented by carrying out data collection in one client at a time and by also enquiring from the client if they had completed the questionnaire prior. The completed questionnaires were checked for completeness, filed and stored in a locked cabinet. When data collection was complete, data entry was done in a Microsoft Access database in a password protected computer.

b) Focus group discussions

Some of the study participants were further interviewed using a focus group discussion. Purposive selection was used to recruit participants who were involved in the focus group discussions (FDGs) so that a variety of different viewpoints could be sampled that was a mixture of young girls from different backgrounds such as catholic and protestant, rural and urban. The responses to general characteristics questions in the questionnaire (Appendix II) were therefore used to help obtain a varied sample group. After the questionnaire was filled, participants who were identified to participate in the FGD were informed and consent sought. If they agreed, they were informed of the date and time the FGD session was to be carried out. The sessions were held at the participants' free time. For those who are discharged, they were requested to come back on the specified date to perform the interview and were assisted with bus fare to help ease their commute. Two FGDs were carried out with a maximum of six to eight (6-8) girls participating in each group. The

sessions were carried out in a private room. The participants did not give their names so as to maintain confidentiality. The principal investigator and at least one research assistant interviewed the girls using the FGD interview guide. Each session took approximately 120-180 minutes. All the sessions were audio recorded with participants' permission and at the same time notes were taken. The interviews were labelled and dated immediately afterwards and the record of the process including notes were kept. At the end of the session, participants were given a chance to ask questions about the session and the study. The transcripts were then analysed based on identified themes. Some studies on adolescent sexuality and reproductive health that successfully used focus group discussions include Wanguyu (2006) and Onyiengo (2008).

In case a client wanted to stop while doing the questionnaire or the FGD session, they were free to do so. Those who opted out or pulled out of the study still received the optimal quality of care, just as those who did participate in the study.

Appended in appendix 1 is the consent form and appended in appendix 2 is the semi-structured questionnaire and focus group discussion interview guide.

3.9. STUDY INSTRUMENTS

3.9.1. Study Instruments

The study instruments comprised of a semi-structured questionnaire, with mainly pre-coded answers and some open-ended questions, and focus group discussion interview guide. The questionnaire was primarily in English but some were translated into Kiswahili. The scope of the questionnaire included the following sections:

A: Background characteristics: *age, level of education, marital status, economic status, religious background*

B: Level of awareness of SRH services among adolescent girls: *availability of services, need for services, SRH problem dimensions*

C: Perceived level of accessibility to SRH services among adolescent girls: *physical access, financial cost, barriers to access and perception on adolescent activities*

D: Acceptability SRH services*: client acceptance of services, parent/guardian acceptance of services and community acceptance of adolescent-targeted SRH services* E: Preferences on type of SRH service delivery: *preference on type of services delivery (stand-alone/specialized versus integrated/comprehensive SRH services) among adolescent girls*

Focus group discussion (FGD) sessions were done using an interview guide that was based on the objectives of the study. Qualitative data was captured and was summarized in suitable thematic areas.

3.9.2. Reliability/Validity

Reliability refers to the consistency with which the research/study will produce the same results if it were to be repeated. *Validity* means the correctness or the accuracy of the findings. Strategies used to ensure credibility of the study findings included acknowledging biases in sampling and ongoing critical reflection of research method to ensure sufficient depth and relevance of data collection and analysis, meticulous record keeping and ensuring consistent and transparent

interpretations of data and including rich verbatim description of the participants' accounts to support findings and engaging with other researchers to reduce bias. Making the participation instructions easily understood, effectively training the research assistants and writing each item clearly also improved the study reliability. Experts on the study subject (adolescent sexual and reproductive health services) from the Reproductive Health department were identified who worked in conjunction with my supervisors to ensure the study tools were reliable and valid. A qualified qualitative researcher from the University of Nairobi also assisted in ensuring that the qualitative research tool is reliable and valid.

3.10. DATA MANAGEMENT AND ANALYSIS

3.10.1. Data Storage

The completed questionnaires were filed and stored in a locked cabinet. All the dictated notes and the tape recorder were locked in the cabinet as well to protect the information therein. All the questionnaires were assessed for completeness. When the data collection was completed, data entry was done in a Microsoft statistical package.

3.10.2. Data Analysis Plan

i) *Quantitative*

Data was entered and analysed with the use of Statistical Package for Social Sciences (SPSS) version 21. Demographic data was analysed and presented as means and standard deviations or as medians and interquartile range where applicable. The level of awareness and access of sexual and reproductive health (SRH) services, acceptability of sexual reproductive health (SRH) was summarized and presented as frequencies and proportions. The preference for integrated SRH services or stand-alone services SRH services was analysed with the use of Chi square tests. A p value < 0.05 was considered significant. Appended in appendix V are the dummy tables.

ii) *Qualitative*

The information gathered during the focus group discussions was captured using a tape recorder after which the principal investigator and at least one research assistant transcribed the information so as to avoid bias. The participants' responses were then divided into suitable thematic areas. The computer software Nvivo 12 was used for coding the information that was thematically united. The researcher adapted an iterative approach to ascertain similarities and differences in the form of expressions and excerpts.

3.11. QUALITY CONTROL

Pretesting of the pre-designed questionnaire guide and the focus group discussion interview guide was carried out by the principal investigator on adolescent girls and young women in the postnatal wards who had recently delivered in Kenyatta National Hospital (the number of girls who participated were approximately 10% of the target population). The questionnaires were then analysed to inform the changes and adjustments that needed to be addressed before a final draft was made for administration to the study participants. Questionnaires were then serialized to avoid

double entry. The research assistants were trained to quickly identify and handle any arising problems in administration of the questionnaire and the focus group discussion.

3.12. ETHICAL ISSUES

Before commencement of the study, ethical clearance was obtained from University of Nairobi/KNH Ethics and Review Committee (application number P134/02/2019), the KNH administration, the Director of Clinical Services, the Chairman of Department Obstetrics and Gynecology and the Matron In Charge. Informed written consent was obtained from every participant before enrolment and the details included in the consenting process were: the purpose of the study, its objectives and design; participation was purely voluntary; the participant was free to withdraw; the study carried no extra risk/cost to the participant; there was no benefit or compensation to the patient for the study and participant received the same standard of care as any other patient receiving RH services in the hospital; strict confidentiality of the study participation and results was observed.

Minors are defined as persons under 18 years, the legal age of consent for research purposes in Kenya. The inclusion of minors was justified because the research topic to be studied was specifically relevant to adolescent girls. The study applied the specific ethical provision for legal emancipation and informed consent for minors who were married, pregnant or a parent who allowed a minor to provide informed consent for care. Counselling was provided to minors prior to assenting and would include reproductive health information and impact of safe SRH practices and risks of adverse outcomes due to risky SRH practices such as unintended pregnancies, unsafe abortions, sexually transmitted infections including HIV/AIDS.

3.13. STUDY STRENGHTS AND LIMITATIONS

3.13.1. Study Strengths

1. Study population included sexually active adolescent girls-the population most at risk of adverse SRH outcomes
2. Adds on to the limited research done on integrated SRHS among young people particularly in our setting

3.13.2. Study limitations

1. Limitation of trust: some of the adolescent girls did not feel comfortable to share such sensitive information and may have underreported their awareness and utilization of Sexual and reproductive health services. This was prevented by assuring the girls that all their information would be kept strictly confidential.
2. Limitation of parents: this was a potential limitation anticipating that some guardians/parents would fail to give consent for their daughter to participate in the study. However, we failed to encounter this limitation as we had 100% recruitment.

3.14. FUNDING

This was a self-sponsored research project

CHAPTER FOUR: RESULTS, DISCUSSION AND CONCLUSION

4.1 RESULTS

Figure 3 shows the flow chart of the study. Between the months of July to November 2019, 90 adolescent girls managed for abortion complications in KNH were screened for participation in this study with 90 (100%) enrolled. Those who were enrolled completed a semi-structured questionnaire and a subset of this population (16 adolescent girls) was selected to participate in two focus group discussions, each with 8 participants. The results of the study include both the qualitative data and the quantitative data.

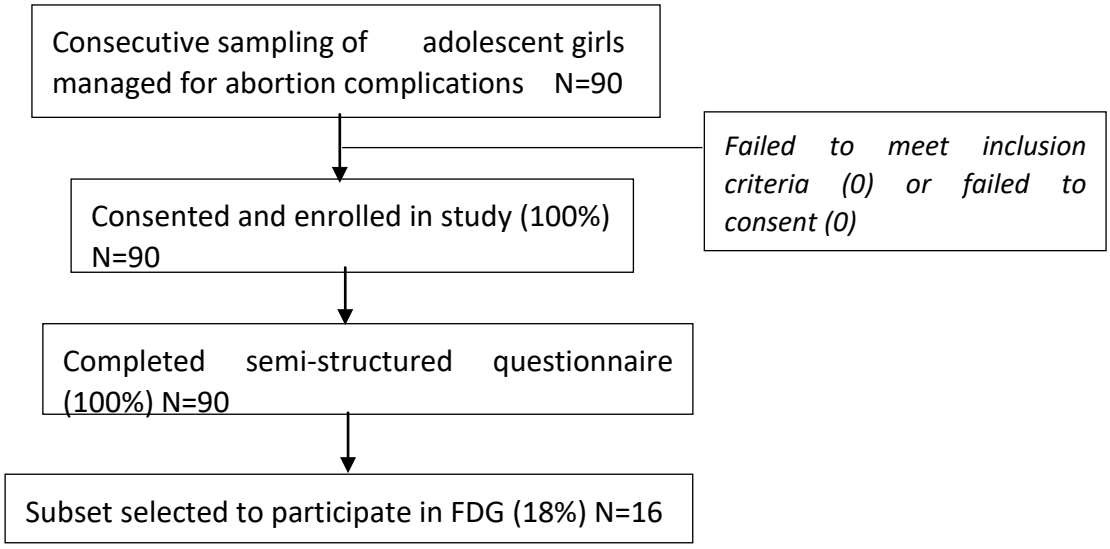


Figure 3

1) DESCRIPTIVE STATISTICS Baseline characteristics of study participants

The descriptive statistics of the 90 sexually-active adolescents managed for abortion complications are listed in table 1 below.

Majority of the participants were between the ages of 16-20 years (67, 74.4%). The median age was 19.0 (IQR=3.0) years.

Most were single (50, 55.6%) with another significant number were married or cohabiting (38, 42.2%).

Most had a maximum level of education at primary school (40, 44.4%) and lacked a regular source of income (77.8%).

Almost all lived in an urban area near/around Nairobi with most of them being Christian (42, 95.4%)

Table 1: Sociodemographic characteristics of adolescent girls managed for abortion complications in KNH from the month of July to November 2019

CHARACTERISTIC (N=90)	**N=90**	**(%)**
Age		
16-20	67	(74.4)
21-24	23	(25.6)
Marital status		
Single	50	(55.6)
Cohabiting/Married	38	(42.2)
Separated/Divorced	2	(2.2)
Education		
None	4	(4.4)
Primary school level	40	(44.4)
Secondary School level	27	(30.0)
Tertiary	19	(21.1)
Regular source of income		
Yes	20	(22.2)
No	70	(77.8)
Student	34	(59.6)
If yes: Gainfully employed	9	(15.8)
Business/self-employed	11	(20.6)
Residence		
Urban	84	(93.3)
Rural	6	(6.7)
Religion		
Catholic	42	(46.7)
Protestant	44	(48.9)
Muslim	4	(4.4)

Table 2 shows reproductive characteristics of the participants in study.
Only 19 (21.1%) had history of previous deliveries
More than a third (34, 37.7%) had history of previous abortions
The abortion related complications encountered in the study participants included per vaginal bleeding/haemorrhage (80, 89%), retained products of conception (67, 74%) lower abdominal pains (54, 60%) and infection (22, 24.4%).
Of significance 57, 63.3% did not intend to have the current pregnancies and of those with history of previous pregnancy, 39 participants (73.8%) reported that it was unintentional.

Table 2: Reproductive Characteristics of adolescent girls managed for abortion complications in KNH from the month of July to November 2019

Reproductive Characteristic	**N=90**	**(%)**
Number of previous deliveries (N=90)		
0	71	(78.9)
1 or >	19	(21.1)
Number of previous abortions (N=90)		
0	56	(62.2)
1 or >1	34	(37.7)
Number of sexual partners (N=90)		
1	67	(74.5)
>1	23	(25.5)
Current Pregnancy intended (N=90)		
Yes	33	(36.7)
No	57	(63.3)
Previous pregnancy before current pregnancy (N=53)		
Wanted	14	(26.4)
Unwanted	39	(73.8)
Outcome of the previous pregnancy (N=53)		
Carried to term	19	(33.9)
Induced abortion	25	(47.2)
Spontaneous abortion	9	(18.9)
Abortion complications encountered (N=90)		
Hemorrhage	80	(88.9)
Lower abdominal pains	54	(60)
Retained products of conception	67	(74.4)
Infection	22	(24.4)

2) LEVEL OF AWARENESS ON SRH SERVICES AMONG ADOLESCENT GIRLS MANAGED FOR ABORTION COMPLICATIONS IN KNH

Level of awareness of SRH services

Table 3 below shows the level of awareness of SRH service components among adolescent girls managed for abortion complications in KNH.

Most of the adolescent girls (84, 93.3%) were aware of VCT services with 75 participants (89.2%) of that number knew of a location where to find this service.

Awareness of family planning was also high with 68 participants (75.6%) were aware of family planning services and only about three quarters of them (77.9%) knew a location where to find this service.

Awareness of condoms was high with 75 participants (83.3%) being aware of this method with 72 participants (96%) of them knowing of a location where to get them. Majority (66 participants, 73.3%) were aware of oral contraceptives pills with 90.9% of that number knowing of a location where to get this method. Awareness of the other family planning methods was dismal.

Awareness of STI treatment/management was low as only 55 participants (61.1%) were aware of this service; while only 51 (56.7%) knew about counselling services

Table 3: Level of awareness of SRH services among adolescent girls managed for abortion complications in KNH from the month of July to November 2019

SRH service	Level of awareness					
	Presence			Location		
	N	No.	(%)	N	No.	(%)
VCT services	90	84	(93.3)	84	75	(89.2)
Family planning	90	68	(75.6)	68	53	(77.9)
Oral contraceptive pills	90	66	(73.3)	66	60	(90.9)
Injectable contraceptives	90	48	(53.3)	48	44	(91.7)
Emergency pills e.g. P2	90	53	(58.9)	53	51	(96.2)
Implant	90	25	(27.8)	25	21	(84)
Intrauterine device	90	25	(27.8)	25	22	(88)
Contraceptive patch	90	15	(16.7)	15	11	(73.3)
Condoms	90	75	(83.3)	75	72	(96)
STI treatment/management	90	55	(61.1)	55	42	(74.4)
Counselling	90	51	(56.7)	51	39	(76.5)

Level of awareness of facility where SRH services are available

Table 4 below shows the level of awareness among adolescent girls managed for abortion complications of a facility where the SRH services are available.
Participants were mostly aware that government/public facilities had SRH services (83, 92.2%) while 81, 97.6% of that number knew a specific location to access this facility.
Awareness of other health facilities having SRH services was dismal. 51 participants (56.7%) were aware that pharmacies had SRH services with 49 (96.1%) of those who were aware knowing the location of a pharmacy where they could get these services.
50 participants (55.6%) knew private facilities had SRH services while 45 (90%) of that number knew the location of a private facility.

Table 4: Level of awareness of type of facility where SRH services are available among adolescent girls managed for abortion complications in KNH from the month of July to November 2019

Type of facility	Level of Awareness					
	Presence			Location		
	N	No.	(%)	N	No.	(%)
Government/ public	90	83	(92.2)	83	81	(97.6)
Private	90	50	(55.6)	50	45	(90)
Private health care provider	90	19	(21.1)	19	17	(89.4)
Dispensary	90	32	(35.6)	32	28	(87.5)
Pharmacy	90	51	(56.7)	51	49	(96.1)
Traditional/herbal	90	16	(17.8)	16	15	(93.8)

Understanding on what adolescent/youth friendly services are
Table 5 below shows that majority of adolescent girls do not understand adolescent/youth friendly health facilities (42, 45.6%) with the remainder having an unclear or partial understanding of the term.

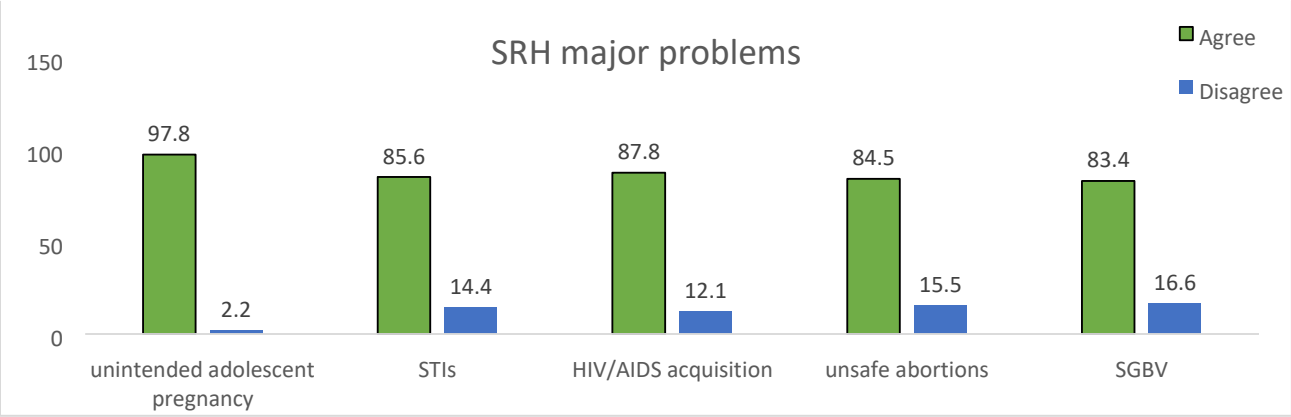
Table 5: Understanding adolescent/youth friendly health services (AYFHS) are among adolescent girls managed for abortion complications in KNH from the month of July to November 2019

Understanding of AYFHS (N=90)	No.	(%)
Don't know	42	(45.6)
Provision of sex education	35	(38.9)
Teachings about adolescent transition	2	(2.2)
Youth health and counselling services	21	(23.3)

Level of knowledge of major SRH problems among study participants

Figure 4 below shows the major problems faced by adolescent girls and young people. Most participants cited these as some of the major SRH problems faced by young people: unintended adolescent pregnancy (88 participants, 97.8%), contraction of HIV/AIDS (79 participants, 87%), other STI/STDS (77 participants, 85%), unsafe abortions (76 participants, 84%) and sexual and gender based violence (75 participants, 83%).

Figure 4: Major problems among adolescent girls managed for abortion complications in KNH from the month of July to November 2019 (N=90)



3) PERCEIVED LEVEL OF ACCESSIBILITY OF SRH SERVICES AMONG ADOLESCENT GIRLS MANAGED FOR ABORTION COMPLICATIONS IN KNH

SRH service component ever accessed by adolescent girls managed for abortion complications in KNH

Table 6 below shows the SRH service component ever accessed by adolescent girls managed for abortion complications in KNH.

Most participants (80 participants, 88.9%) accessed VCT services, 54 participants (60%) accessed antenatal/postnatal services

The other SRH service components were poorly accessed with only 39 participants (43.3%) having accessed STI testing, 37 participants (41.1%) had accessed general counselling services

Only 36 participants (40%) had accessed family planning provision services

Approximately 34% had accessed abortion or post-abortion services that is 18 participants (20%) and 13 participants (14.4%) respectively.

Table 6: Type of SRH service component ever accessed and type of facility SRH service(s) were accessed by adolescent girls managed for abortion complications in KNH from the month of July to November 2019

Type of SRHS component and health facility (N=90)	**N=90 No.**	**(%)**
a) SRH service component ever accessed		
VCT/PICT services (including HIV counselling)	80	(88.9)
Testing for STIs (sexually transmitted infections)	39	(43.3)
STI treatment	17	(18.9)
Provision of Family planning	36	(40.0)
Abortion services	18	(20.0)
Receiving Post-abortion care	13	(14.4)
Antenatal/postnatal services	20	(22.2)
General counselling services	37	(41.1)
b) Facility where SRH service(s) were accessed		
Government/public facility	81	(90.0)
Private facility	42	(46.7)
Private health care provider	4	(4.4)
Dispensary	10	(11.1)
Pharmacy	23	(25.6)
Traditional/herbal clinic	1	(1.1)

The table also shows the type of facility where SRH services were accessed by adolescent girls managed for abortion complications

Most adolescent girls (81 participants, 90%) had accessed SRH services from government/public facilities.

Private facilities were only accessed by only 42 participants (46.7%)

Only 10 participants (11.1%) had accessed SRH services from a dispensary

Pharmacies were also accessed by only a quarter of adolescent girls (23 participants, 25.6%)

Table 7: Physically and Financial Accessibility of SRH services available to adolescent girls managed for abortion complications in KNH from the month of July to November 2019

Physical and financial accessibility of SRH services available **(N=90)**						
a) Physical accessibility of health facility **(N=90)**						
Type of facility where SRH services are available	**Accessibility of facilities where SRH services are available**					
	Walking distance		*Fare<Ksh.50*		*Requires >Ksh.50*	
	No.	(%)	No.	(%)	No.	(%)
Government/public facility	55	(61.1)	20	(22.2)	15	(16.7)
Private facility	21	(23.3)	40	(44.4)	29	(22.2)
Private health care provider	9	(10.0)	13	(14.4)	68	(75.5)
Dispensary	18	(20.0)	18	(20.0)	44	(60)
Pharmacy	35	(38.9)	12	(13.3)	43	(47.8)
Traditional/herbal clinic	3	(3.3)	13	(14.4)	74	(81.3)
b) Financial accessibility of SRH services	**N=90**		**No.**		**(%)**	
Cost of SRHS: Free			24			(26.7)
Affordable			53			(58.9)
Not affordable/ expensive			13			(14.4)

Table 7 above shows the physical and financial accessibility of SRH services that are available to adolescent girls managed for abortion complications.

Physical accessibility

Public facilities were found to be easily accessible by 75 participants (82%) with 55 participants (61%) finding public facilities to be within walking distance while 20 participants (22.2%) required Ksh 50 or less to access the facilities.

Pharmacies were found to be physically accessible by 47 participants (52.2%) with 35 participants (38.9%) found pharmacies to be within walking distance and 12 participants (13.3%) required fare less than Ksh. 50 to access these facilities

Private facilities were found to be physically accessible by 61 participants (67.7%) - 21 participants (23.3%) found private facilities to be within walking distance and 40 participants
(44.4%) required fare less than Ksh. 50 to access these facilities

Majority of participants did not find the other healthcare facilities easily physically accessible

Financial accessibility

Table 7 also shows the cost of SRH services among the adolescent girls.

24 participants (26.7%) had received free SRH services 53 participants
(58.9%) found SRH services to be affordable.

13 participants (14.4%) found SRH services to be unaffordable

Perceived barriers in accessing SRH services among adolescent girls

Table 8 below shows the perceived barriers young people faced while seeking SRH services.

Majority of the adolescent girls (59 participants, 65.5%) had experienced major barriers in accessing SRHS.

The most common barriers were:

- Failure to know where to access these SRH services (44 participants, 74.6%)
- Failure to access or receive these services as they were under 18 years (42 participants, 71.2%)
- Failure to access the services because they felt the parents/community did not approve (38 participants, 64.4%).

36 participants (61%) reported that they found the operating hours of the facilities were inconvenient while 33 participants (55.9%) feared being seen by someone who knew them. 30 participants (50.8%) were unable to access SRH services as they were unmarried and 32 participants (54.2%) were unable to seek SRH services as the health facility was too far. Other barriers faced by adolescent girls were: failure to see the need to get the services (24 participants, 40.7%), long queues and waiting hours (25 participants, 42.2%) and high cost of treatment (21 participants, 35.6%)

Table 8: Perceived barriers in accessing SRH services among adolescent girls managed for abortion complications in KNH from the month of July to November 2019

A: PERCEIVED BARRIERS (N=90)	**N=90**	**(%)**
Experienced any barriers accessing SRH services	59	(65.6)

B: PARTICULAR BARRIERS ENCOUNTERED (N=59)	**N=59**	**(%)**
Did not know where to get/access these services	44	(74.6)
Age below 18 years	42	(71.2)
Unmarried	30	(50.8)
Did not see the need to get services	24	(40.7)
Disapproval of parents/community	38	(64.4)
Fear of being recognized	33	(55.9)
Facility was too far	32	(54.2)
Transport costs	18	(30.5)
Treatment costs	21	(35.6)
Long queues	25	(42.4)
Inconvenient opening hours	36	(61.0)
Confidentiality	16	(27.1)
Fearing judgmental/unfriendly health care providers	18	(30.5)
Health care provider demanded unauthorized fees	15	(25.4)
Did not find the service I wanted	20	(33.9)

4) ACCEPTABILITY OF SRH SERVICES AMONG ADOLESCENT GIRLS MANAGED FOR ABORTION COMPLICATIONS IN KNH

Table 9 below shows that almost all adolescent girls (89 participants, 98.1%) feel that SHR services are necessary for adolescents

76 participants (84.4%) cited access to family planning as the main reason for perceived need for SRH services, 59 participants (65.6%) cited STI treatment/management, and 58 participants (64.4%) cited safe sex as the reason for their need for SRH services.

Most participants suggested that appropriate age felt to start providing SRH information and services is at primary school level (59 participants, 65.6%).

Only 17.8% and 12.2% felt that SRH information should be taught and services availed at secondary school and age 18 years and above respectively.

65 participants (72.2%) felt that adolescent boys also need to be involved in acquisition of SRH services available

Majority (63 participants, 70%) felt that the government is doing enough to support young people in accessing acceptable and quality SRH services.

Table 9: Perceived need for SRH services among adolescent girls managed for abortion complications in KNH from the month of July to November 2019

A: Need for SRH services (N=90)	**N=90**	**(%)**
SRH need: Yes	90	(100)
B: Reason for perceived need for SRH services (N=90)		
Safe sex	58	(64.4)
Family planning	76	(84.4)
STI treatment and management	59	(65.6)
HIV prevention	49	(54.4)
C: Appropriate Age for young people to receive SRH information or services (N=90)		
Primary school	59	(65.6)
Secondary school	16	(17.8)
Age 18 years and above	11	(12.2)
Before onset of sexual activity	3	(3.3)
Before marriage	1	(1.1)
D: Need to offer adolescent boys SRH services as well (N=90)		
Yes	65	(72.2)
No	25	(27.8)
E: perception on whether government doing enough to support adolescent SRHS (N=90)		
Government is doing enough	27	(30.0)
Government is not doing enough	63	(70.0)

Level of acceptability and acceptability quality indicators

Table 10 below shows the level of acceptability of available SRH services among the study participants.

39 participants (43.3%) had high acceptability of available SRH services.

47 participants (52.2%) had moderate acceptability of available SRH services while 4.4% found the available SRH services unacceptable.

43 participants (52.2%) found that health facilities lacked informative signs and any SRH informational material for adolescents at the waiting areas (29 participants, 32.2%).

Only 30 participants (33.3%) received talks on contraception and only 40 participants (44.4%) on HIV and STI prevention.

67 participants (74.4%) found the health facility's operating hours convenient

Only 31 participants (34.4%) found the waiting times acceptably short with majority (65.6%) found them too long.

51 participants (62.2%) found that confidentiality was maintained.

64 participants (71.1%) reported that they were provided with SRH information

54 participants (60%) reported that information provided was clear and the same number reported that they felt that the healthcare provider was respectful towards them

Table 10: Level of acceptability of available SRH services among adolescent girls managed for abortion complications in KNH from the month of July to November 2019

i) OVERALL LEVEL OF ACCEPTABILITY OF SERVICES (N=90)	**N=90**	**(%)**
High	39	(43.3)
Moderate	47	(52.2)
Low	4	(4.4)

ii) OVERALL ACCEPTABILITY QUALITY INDICATORS (N=90)		
A: Facility Characteristics	**N=90**	**(%)**
Signage detailing the services available	43	(47.8)
Awareness of an alternative site to seek SRH services	36	(40.0)
Informational material available (pamphlets, video, TV)	29	(32.2)
Brochures on FP/HIV&STI prevention	21	(23.3)
General talks on FP/HIV&STI prevention	16	(17.8)
Posters on FP/ HIV&STI prevention	30	(33.3)
One-on-one talks: contraception	30	(33.3)
STIs including HIV	40	(44.4)
Convenient opening hours	67	(74.4)
Short waiting time (<30 minutes)	31	(34.4)
Confidentiality	56	(62.2)
Comfortable seating in waiting area	51	(56.7)
Clean consultation areas	56	(62.2)
B: Acceptability Of HCP Input		

Client provided with SRH information	64	(71.1)
Clarity of information	54	(60.0)
Acceptance of HCP decision	47	(52.2)
Client involvement in decision making	48	(53.3)
Respect towards client	54	(60.0)

5) PREFERENCE OF TYPE OF SRH SERVICE DELIVERY AMONG ADOLESCENT GIRLS MANAGED FOR ABORTION COMPLICATIONS IN KNH

Preference of type of SRH service delivery among adolescent girls managed for abortion complications in KNH

49 participants (54.4%) preferred to seek integrated SRH services while 32 participants (35.6%) preferred stand-alone services.

Table 11 below shows the potential benefits and disadvantages of integrated SRH services among those who prefer integrated SRH services.

The most common potential benefits were:

- Reduced trips to the health facility (41 participants, 83.3%)
- Good opportunity to access additional health services (41 participants, 83.3%)
- Improved efficiency of services (41 participants, 83.3%)

The most common potential disadvantage was thought to be that the health provider might be too busy (36 participants, 73.5%).

- 35 participants (71.1%) of adolescent girls feared that there would be reduced confidentiality.
- 34 participants (68.9%) feared that there would be increased waiting time.
- 28 participants (67.8%) feared stigmatization/discrimination while
- 33 participants (66.7%) felt that they would be embarrassed to talk about personal information with a health care provider from the same/nearby neighbourhood.

Table 11: Perceived potential benefits and disadvantages of integrated SRH services among adolescent girls managed for abortion complications in KNH from the month of July to November 2019

Potential Benefits of integrated SRH services **(N=49)**	**N=49**	**(%)**
Reduce trips to the facility	41	(83.3)
Reduce cost of treatment	39	(81.1)
Reduce waiting time	39	(80.0)
Reduce transportation costs	39	(80.0)
Reduce stigma for HIV	40	(82.2)
Good opportunity to access additional health services	41	(83.3)
Improved efficiency of services	41	(83.3)
Potential Disadvantages of integrated SRH services **(N=49)**	**N=49**	**(%)**

Fearing stigma/discrimination	28	(67.8)
Increased waiting time	34	(68.9)
Fear of less confidentiality	35	(71.4)
The health provider will be too busy	35	(71.4)
Decreased quality of services	29	(58.9)
Embarrassment to talk about some things with provider from the same neighbourhood	33	(66.7)

QUALITATIVE DATA

Two focus group discussions were carried out during the study with 8 participants in each group. The relevant data was collected and analysed into themes as per the objectives.

A: Awareness of SRH services among adolescent girls

The focus group discussions revealed that the adolescent girls interviewed revealed that they are aware of some available SRH service components.

- Awareness of SRH services was generally poor.

"I do not know a lot about reproductive information. I had just found out I was pregnant and I did not have anyone to talk to. I was very angry and scared so I decided to take some medicine from the pharmacy which my friend suggested to remove it." Source: participant 14

- Some of the SRH services that the participants were aware of included sexuality education (provided mainly in high schools through counselling or religious groups and church talks)
- Some participants also received talks on HIV and STI prevention done by NGOs in some neighbourhoods.
- In the words of some interviewees:

"We were told that sex is bad in primary school. In high school we had a regular group session once every year…It was interesting but I did not find it beneficial. But I still think it's good to have these sessions is schools"

Source: participant 5

"In Kibra too, NGOs really help young people especially girls. They have sex-education talks, they even give pads or condoms sometimes or even milk and bread. Since many of us live in hardship, this really helps us because we get information and services, but we also get something to help us when we go back home (i.e. pads or food). Church also has youth rallies sometimes where we are divided in groups and we talk about sex and relationships." Source: Participant 3

- Participants had poor awareness of FP methods and many were of the view that FP services available were for married women or for women who have already given birth. They had many misconceptions on how the family planning methods would affect their bodies showing a lack of adequate and accurate information. An interviewee reported:

"I've have never used family planning. To say the reason, there is some fear, not only just me but also others. You hear people say that when you use family planning, you become big or you can fail to have a baby when you stop using the family planning."

Source: Participant 6

This is similar to findings of Nalwadda et al in a Ugandan study where young people believed that contraceptives interfered with fertility and that contraceptives were to be used by married women and women who have already given birth.

Also this quote:

"I also have never used family. But my friend usually talks about traditional/herbal drugs. She is given by her mother who lives upcountry. Her mother sends her the herbal medicine via her elder sister when she goes to visit. But I don't know if she uses them or has any problems using them".

Source: Participant 8

<u>Accessibility of SRH services among adolescent girls</u> a)

SRH service component accessed

- Many participants explained that they had sought VCT services including HIV testing and post exposure prophylaxis. 3 cited that they had accessed antenatal/postnatal services at hospitals while 3 revealed that they had accessed abortion services at private clinics and one had accessed misoprostol from a local pharmacy.

- Other SRH services were poorly accessed

b) Place of access

- 7 participants preferred seeing SRH services from public hospitals. These were most favoured because of reduced cost of treatment.

- Private facilities were thought to be expensive and thus less accessible

- Pharmacies were the second most favoured option with four out of 13 respondents selecting them. These were most favoured for accessing family planning services as they were thought to be very convenient and easily accessible.

c) Barriers in accessing SRH services

- <u>Fear of stigma</u> came up as the dominant theme during the FDGs. Of the sixteen FGD participants who responded to this question, four respondents cited examples such as fear

of being judged, fear of being seen by someone known to you while seeking services at a facility.

- The second theme is lack of information about where to seek for services. This was cited below:

"Not knowing where to get these services like family planning is a problem".

Source: FGD participant 2.

- Three participants cited financial inability as a barrier while the last theme was poor service delivery and this was cited by three respondents as illustrated in the following quote:

"Well, the first time I came to KNH the doctors and nurses who saw me were rude, and they were rushing us without explaining what the problem was and the plan for treatment".

Source: FGD participant 12

- 9 participants responded affirmatively that they found SRH services 'okay'. However three of these nine respondents indicated that even though the services were okay, they were general and not tailored to suit the needs of adolescents.

"The services I have seen are only general, there are no special clinics/areas for teenagers or young people. I guess the services are okay…I mean we have no choice but to use the services that are available. I wish they could be made better"

Source: Participant 8

"The available services are okay and they help but there are no services specific for youth, they are just general services. I think if there were separate services for young people, it would be better"

Source: Participant 11

C: Acceptability of SRH services

- The SRH services available were found just to be 'okay' and there was a great need to improve these services and make them suited to adolescents/youth.
- However they said that the available SRH services were general and not tailored to young people. Some also shared that since there were no other options available to access SRH services, they had to use the services that were available.

"..there are no special clinics/areas for young people. I guess the services are okay…I mean there's no choice other than to use the ones made available"

Source: Participant 8

"I think if there were separate services for young people, it would be more comfortable to share and be honest" Source: Participant 11

D: Preferences on type of SRH service delivery

- Most of the participants reported that they preferred to receive SRH services, including HIV services at the same facility-one stop shop as this would save on time and reduce multiple trips to health facilities.
- Some differed in opinion revealing that receiving SRH services at different places would help avoid discrimination and the risk of being seen by someone who knew them. It would also be more convenient to receive specific services at different places when necessary e.g. getting family planning services from a pharmacy.
- Other main themes in regards to preference of SRH service delivery included counselling administered by younger people, making the venue of service delivery friendlier, creation of awareness and having separate SRH facilities for young people.

Finally, awareness creation has been a recurring theme throughout this study. There were more calls for intensified awareness creation activities targeting children, adolescents, the youth and young adolescents to ensure that they have information to make the right decisions. The awareness creation activities are meant to permeate all the spaces occupied by these various groups of people including homes, neighbourhoods in the estates, schools, seminars and youth camps. Similarly, radio and television were cited as avenues where such information could be spread to reach wider coverage.

4.2 DISCUSSION

This study on the whole, has shown that awareness of sexual and reproductive health services is generally poor. A finding that is similar to study done by Ajike et al 2016 in Nigeria (40).

Most of the adolescent girls were poorly aware of most family planning methods. This is similar to Ruvani et al 2018 in Kenya (41) who found among girls and women in Nairobi had reduced awareness and access to SRH services particularly contraceptive methods. The qualitative data findings mirrored these findings with participants revealing that many adolescent girls fail to use family planning methods due to either lack of awareness of methods available or due to several misconceptions about the effects of the methods on their body. The result is disastrous given that it is well known that contraceptive use prevents unintended pregnancies as well as unsafe abortions with subsequent complications. Effective and efficient contraceptive use among adolescent girls will contribute to the realization of SDGs (Sustainable Development Goals) by limiting unplanned births and child deaths.

In addition to preventing the adverse health effects of unintended pregnancies, contraceptive use contributes to the realization of Sustainable Development Goals (SDGs) by limiting the number of unplanned births and child deaths, and increasing the resource envelope that families spend on other necessities using money saved by having planned pregnancies. The low level of awareness of family planning methods among the study population is waring due to inherent need of these services to reduce unintended pregnancies and thus abortion rates and abortion complications.

In terms of accessibility, the tenets of access include knowledge of existence of services, ability to reach the services and use them, and perception on usability of services. Adolescent girls in this study most commonly accessed VCT services as opposed to other SRH service components. This points to an increase awareness of HIV status among young people which corresponds to the level of campaigns and funding on this aspect in our setting. This depicts the impact of intervention. However, deficiency of other aspects of SRH services obviates this bias with need to deal with this problem since even if the SRH components are itemized they actually form a continuum of a problem of access to SRH services as a whole. Thus, if adequate effort is instituted all the components of SRH services would be utilized by young people.

It is also important to note that a 1/3rd of the study population had received abortion services elsewhere and accessed post-abortion care prior to coming to KNH. This indicates that unintended adolescent pregnancies and unsafe abortions are still a major problem among our young people requiring interventions such as increased awareness of family planning methods and if need be, access to safe abortion services under a specialist care. It also indicates that specific SRH services such as, adolescent family planning methods, need to be popularized in government facilities as seen in the adolescent clinic in KNH.

The study findings revealed that adolescent girls mostly accessed SRH services from government/public facilities. As government facilities were noted to be most accessible by these adolescent girls, interventions must be instituted to further popularize these services in government facilities among young people to further increase their access and subsequently, their utilization.

The facilities most physically accessible by the study population were government/public facilities, followed by private facilities then pharmacies. This finding was echoed in the FDGs where

participants shared that they prefer seeking care at government facilities as services are more affordable. Some preferred pharmacies as they are very convenient with no waiting queues. Some also shared that private facilities were also good as there are many located in residences and neighbourhoods in Nairobi making them convenient.

Respondents reported that available SRH services are financially accessible. Majority of participants found most SRH services affordable (58.9%), some had accessed free SRH services (26.7%) while 14.4% found the services unaffordable/expensive. This can be attributed to the fact that majority of the participants mostly accessed SRH services at government/public facilities. This was mirrored in the qualitative data which showed that participants prefer to access SRH services in government facilities as they were cheaper than services in private facilities or in pharmacies. Therefore, SRH services in other health facilities were seen to unaffordable by most participants and thus inaccessible. This is similar to findings of Frehiwot et al 2005 in Ethiopia (19) where most adolescents reported the SRH services were unaffordable and inaccessible. Amelia et al 2018 in Nigeria (12) also found that adolescents found available SRH services physically accessible but few were financially accessible.

More than 2/3rds of the study participants reported having perceived specific barriers in accessing SRH services. About 50% of participants cited that failure to know where to access SRH services was the barrier they had faced mostly. This is similar to findings of S. Lao et al in Thailand where the main barrier in accessing YFHS among youth was that they were unaware of their existence. Other common barriers cited included failure to receive SRH services as the client was below 18 years, failure of parental/community approval, inconvenient operating facility hours and fear of being recognized. Frehiwot et al(19) found that young people in their study reported facing similar barriers in accessing SRH care.

Majority of adolescent girls also felt that the young people nowadays face many SRH problems particularly unintended adolescent pregnancy, HIV/AIDS acquisition, STIs, unsafe abortions and sexual and gender-based violence. This is similar to findings of Awazzi et al 2017 in Nigeria (40) who found unintended pregnancy, unsafe abortion and STI/HIV as the major problems specifically mentioned by adolescent girls in Nigeria. They also felt that the government is failing to do enough to address these problems among young people.
The study findings show that majority of adolescent girls find available SRH services acceptable. This is despite the fact that the quality-of-service indicators were generally noted to be dismal. The high acceptance potential indicates that with increased acceptance of SRH services there will be increased use of SRH services among young people. This can be done by improving the quality-of-service indicators in health facilities particularly government facilities, making them more acceptable to this demographic. Therefore, increasing acceptance of SRH services among young people would be a major strategic intervention in SRH services in Kenya.

On preference of integrated and stand-alone SRH services, there was a predilection to integrated services among the adolescent girls. Although there was a tendency in the study population to prefer integrated SRH services, this may be due to lack of clearly established integrated or standalone SRH services. This is supported by Brindis et al 2005 (39) in California, who found that there was generally poor establishment of integrated health services. The most commonly cited potential benefits of integrated care were reduced trips to facility, good opportunity to

access additional health services with increased waiting time at facility and business of the health care provider cited as the main disadvantages. This was similar to UNFPA Botswana study findings.

However in our setting, there is poor establishment of clearly defined integrated or stand-alone SRH services, particularly for young people. The most important advantage that can be harnessed by specialized adolescent SRH services is high specialization of the provider and dedicated counsellors to address adolescent-specific SRH issues. Integration and stand-alone SRH services among young people is however an area that has not been adequately addressed and hence shows that there is a major gap of research and understanding on this aspect.

4.3 CONCLUSION

From the results of this study, it can be concluded that awareness of sexual and reproductive health services is generally low among adolescent girls. Perceived accessibility of SRH services was also generally low. Acceptability potential is high but unexploited. Integrated services are more preferable among adolescent girls however this in the face of specialized adolescent SRH services being very few.

4.4 RECOMMENDATIONS

There is need for innovative approaches to increase awareness of adolescent SRH services through use of informative advertisements on television, social media and mobile phones. There is need to take measures that improve the accessibility and awareness on accessibility of SRH services among young people as accessibility to SRH services was generally low. This can be done with use of medical camps in neighbourhoods and youth outreach campaigns where many young people can access these services and obtain SRH information to enable them to make better, more informative decisions such as safe sex practices.

There is need to improve quality of SRH services among adolescents in order to increase acceptability of these services, with acceptability used as a surrogate indicator of awareness. Improving the quality indicators in various hospitals such as informative pamphlets and addition of recreational activities in adolescent-focused clinics such as televisions, games and refreshments will improve acceptability of SRH services among young people and will hence increase utilization of these services.

There is need to introduce and educate adolescents and young people on options on the methods of service delivery in order to enhance choice and accessibility to SRH services. Adolescent focused clinics should be set-up in various areas of the country where young people can readily access SRH information and services. With increased availability of adolescent-focused clinics nationally, young people will be able to access specialized SRH services from medical staff who are specifically trained to handle issues of adolescents and young people. With the advent of such facilities nationally, young people will hence to able to receive specialized SRH care and treatment under one roof. This will lead to increased accessibility, acceptance and utilization of SRH services among young people culminating in a reduction in unwanted pregnancies, unsafe abortions, STI and HIV rates among adolescents and youth in Kenya.

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APPENDICES

Appendix I: CONSENT FORM

CONSENT FORM

Study Topic

Awareness, Accessibility and Preferences of Sexual and Reproductive Health Services (SRHS) Among Adolescent Girls Managed For Abortion at the Kenyatta National Hospital

Principal investigator

Dr Priscilla Wanjohi, a registrar in the Department of Obstetrics and Gynecology in KNH/UON.

Investigator's statement

I, Priscilla Wanjohi, am requesting your participation in a research study. This consent form is to provide you the information you need to help you decide whether to participate in this study which is on the level of awareness of sexual and reproductive health services among adolescent girls managed at the Kenyatta National Hospital with abortion complications. Please go through this form carefully and in case you have any questions, they will be addressed. When all your concerns are addressed, you can decide whether or not to participate in this study.

Purpose and benefits

This study aims to determine the level of awareness, access, acceptance and preferences of sexual and reproductive health services among adolescent girls receiving management for abortion related care in KNH. Through this study, we hope to understand if young people are aware of these services, where they seek these services and any recommendations on how to improve these services. This study will benefit the community and the society by providing more information on how to improve adolescent health programs and improve the sexual and reproductive health of these young populace.

Procedure

If you agree to be involved in this study, a questionnaire will be given to you that contains with questions about yourself, your sexual behaviour, your level of knowledge on reproductive health information and services, where you access reproductive health services, your acceptability of these services and your preference on reproductive health service delivery among young people.

Risks or stress

You may feel anxious or embarrassed about answering some of these questions, but privacy and confidentiality will be strictly upheld. Completing the questionnaire will take about 10-15 minutes only.

Other information

Your identity as a research subject will be kept strictly confidential. Those who will be able to access this information will only be the investigator, institutional review board of University of Nairobi Ethics and Research Committee. A study number will be allocated to you which will

identify you. It will not be linked to your name in any records. Your name or any identifying information will not be used in any published reports about this study.

If you choose to refuse to answer any of the questions asked above at any time or choose to withdraw from the study, there will be no loss of benefit or penalty.

Investigator's signature _____ Date_____

Investigator's name _____

***Participant's statement**:*

I have received a thorough explanation about this study and I wilfully volunteer to participate in this research. I have been given a chance to ask questions and in case I have any other questions about the research, I can ask the investigator listed above. In case I have questions about my rights as a research subject, I am free to contact the Kenyatta National Hospital/University of Nairobi Ethics and research Committee.

There has been no coercion used to influence me in my decision to participate in the study as explained to me by.....

Name of participant.....

Signature of participant.....

Witness (parent/guardian/clinician):

Witness's Signature.....

Date.....

I have given a thorough explanation of the study purpose, any risks and benefits to the participant.

Investigator:

Signature.....Date.....

FOMU YA IDHINI

Mada ya utafiti

Uelewa na Matumizi ya Huduma za Afya ya Uzazi kati ya Wasichana wa Kijana na Wanawake miaka 25 na chini Wanaohudumiwa katika Hospitali ya Kitaifa ya Kenyatta kwa Utoaji wa Mimba

Mchunguzi Mkuu

Daktari Priscilla Wanjohi, mwanafunzi katika Idara ya Chuo Kikuu Cha Uzazi Na Ujinsia wa Nairobi /Hospitali ya Kitaifa ya Kenyatta

Taarifa Ya Mchunguzi

Mimi, Priscilla Wanjohi, ninakuomba kushiriki katika utafiti huu. Kusudi ya idhini hii ni kukupa maelezo ambayo yatakusaidia kuamua kama utataka kushiriki katika utafiti huu ambao unachunguza Uelewa na Matumizi ya Huduma za Afya ya Uzazi kati ya Wasichana wa Kijana na Wanawake miaka 25 na chini Wanaohudumiwa katika Hospitali ya Kitaifa ya Kenyatta kwa Utoaji wa Mimba. Tafadhali soma fomu hii ya idhini kwa makini na maswahili yoyote ambayo utakuwa nayo yatashughulikiwa. Wakati ambapo maswali yote yatashughulikiwa, utaweza kuamua kama ungependa kushiriki katika utafiti huu au la.

Madhumuni na faida

Utafiti huu una lengo la kuamua Uelewa na Matumizi ya Huduma za Afya ya Uzazi kati ya Wasichana wa Kijana. Kutokana na utafiti huu, tunatumaini kuelewa kama vijana wanaelewa huduma za afya ya uzazi, wapi kupata huduma hizi za afya na mapendekezo yoyote juu ya jinsi ya kuboresha huduma hizi.

Utafiti huu utafaidi jamii kwa kutoa maelezo zaidi juu ya jinsi ya kuboresha mipango ya afya ya vijana na kuboresha afya ya ngono na uzazi wa vijana hawa.

Utaratibu

Ikiwa unakubali kushiriki katika utafiti huu, utapewa dodoso ya maswali kuhusu wewe mwenyewe, tabia yako ya kijinsia, ngazi yako ya uelewa wa habari na huduma za afya ya uzazi, mahali ambapo unapofikia huduma hizi na kukubalika kwa huduma hizi pamoja na upendeleo juu ya utoaji huduma hizi za afya ya uzazi kati ya vijana.

Hatari au mkazo

Unaweza kujisikia wasiwasi au aibu juu ya kujibu baadhi ya maswahili haya, lakini faragha na siri zitazingatiwa. Kukamilisha safari hii itachukua muda wa dakika 10-15 tu.

Habari nyingine

Tutaweka utambulisho wako katika utafiti huu siri. Mchunguzi, Bodi Ya Kitaalam ya Kitaasisi ya Chuo Kikuu cha Nairobi na Bodi ya Maadili na Utafiti tu itakuwa na upatikanaji wa habari kwako. Maelezo kuhusu wewe yatatambuliwa na namba ya utafiti na haitaunganishwa na jina lako katika kumbukumbu yoyote. Jina lako halitatumiwa katika ripoti yoyote itakayochapishwa kuhusu utafiti huu.

Unaweza kuondoka kwenye utafiti huu ama kukataa kujibu maswali yoyote yaliyoulizwa hapa wakati wowote bila kupoteza faida au kuitishwa adhabu.

Saini Ya Mchunguzi ..... Tarehe …….

Jina La Mchunguzi ……..……

Taarifa ya mshiriki

Utafiti huu umeelezwa kwangu na ninajitolea kushiriki katika utafiti huu. Nimekuwa na nafasi ya kuuliza maswali. Ikiwa nina maswali yoyote baadaye juu ya utafiti huu ninaweza kumuuliza mchunguzi aliyeorodheshwa hapo juu. Ikiwa nina maswali yoyote juu ya haki zangu kama somo la utafiti, ninaweza kuwasiliana na Hospitali ya Kitaifa ya Kenyatta / Chuo Kikuu cha Nairobi Bodi ya Maadili na Utafiti.

Hakuna kulazimishwa imetumiwa kunishawishi katika uamuzi wangu wa kushiriki katika utafiti huu kama nilivyoelezwa na …….....

Saini ya Mshiriki ..... Tarehe ……

Shahidi (Mzazi / Mlezi / Daktari):

Ishara ya Shahidi ....

Tarehe..... .....

Nimetoa ufafanuzi wa kina wa kusudi la utafiti, hatari yoyote na faida kwa mshiriki.

Mtafiti:

Saini ..... Tarehe ....

Appendix II: STUDY INSTRUMENTS

QUESTIONNAIRE

Interviewee number: ……

A: GENERAL CHARACTERISTICS

1.1. What day, month and year were you born?
Day…….. Month …….. Year …….
Age in completed years: ……..

1.2. What is your marital status?

(1). Single ( )
(2). Cohabiting/ Married ( )
(3). Separated/ Divorced ( )

1.3. What is your maximum education level?

(1). Received No education ( ) (4). College ( )

(2). Primary school level ( ) (5). University ()

(3). Secondary School level ( )

1.4. Do you have a regular source of income every month?

(1). Yes ( ) (2). No ()

If yes, specify:

(1). Gainfully employed ( ) (2). Business/self-employed ( ) (3). Student ( )

1.5. Place of regular residence:

(1). Urban ( ) Where? …….. (2). Rural ( ) Where? ……

1.6. What is your religion?

(1). Catholic ( ) (4). None ( )

(2). Protestant ( ) (5). Other ( ) .

(3). Muslim ( )

Reproductive Characteristics

1.7. Number of previous deliveries: ……..

1.8. Number of previous abortions: ……

1.9. Number of sexual partners: ……..……

1.10. Is the pregnancy intended?

(1). Yes ( ) (2). No ( )

1.11. If you have been pregnant before, was the last pregnancy wanted?

1). Yes ( ) 2). No ( )

1.12. Outcome of the last pregnancy:

1). Carried to term ( )

2). Aborted: Induced ( ) Spontaneous miscarriage ( )

B: LEVEL OF KNOWLEDGE ON SEXUAL AND REPRODUCTIVE HEALTH SERVICES

Awareness of SRH services

2.1. Are you aware of where you can get the following services?

Service	*Knows about presence*	*Knows about location*
VCT services	Yes ( ) No ( )	Yes ( ) No ( )
Family planning services for adolescents	Yes ( ) No ( )	Yes ( ) No ( )
Sexually transmitted infection management and treatment	Yes ( ) No ( )	Yes ( ) No ( )
Counselling services	Yes ( ) No ( )	Yes ( ) No ( )

2.2. Are you aware of a facility/site where the services above (mentioned in question 2.1) are available? **tick where appropriate*

Facility	*Knows of presence of facility*	*Knows location of facility*
Government/public facility	Yes ( ) No ( )	Yes ( ) No ( )
Private facility	Yes ( ) No ( )	Yes ( ) No ( )
Private health care provider	Yes ( ) No ( )	Yes ( ) No ( )
Dispensary	Yes ( ) No ( )	Yes ( ) No ( )

Pharmacy	Yes ( ) No ( )	Yes ( ) No ( )
Traditional/herbal clinic	Yes ( ) No ( )	Yes ( ) No ( )

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2.3. What do you understand by adolescent/youth friendly health services? ……

2.4. Are you aware of any of these family planning methods?

Method	*Awareness of type of method*	*Awareness of location where to get the method*
Oral contraceptive pills	Yes ( ) No ( )	Yes ( ) No ( )
Injectable contraceptives	Yes ( ) No ( )	Yes ( ) No ( )
Emergency pills e.g. P2	Yes ( ) No ( )	Yes ( ) No ( )
Implant	Yes ( ) No ( )	Yes ( ) No ( )
Intrauterine device	Yes ( ) No ( )	Yes ( ) No ( )
Contraceptive patch	Yes ( ) No ( )	Yes ( ) No ( )
Condoms	Yes ( ) No ( )	Yes ( ) No ( )

Need for services

2.7. Do you see the need for sexual and reproductive health services being available to adolescents?

(1). Yes ( ) (2). No ( )

If yes, why do you feel it is necessary? ***tick where applicable*

(1). To be aware of the risks of engaging in early and/or unhealthy sexual practices ( )

(2). To access family planning to prevent unintended pregnancy ( )

(3). To treat and manage sexually transmitted infections ( )

(4). To prevent from acquiring HIV infection ( )

(5). Other ……

2.8. At what age do feel it is appropriate for young people to receive reproductive health information and services?

(1). Primary school ( )

(2). Secondary school ( )

(3). Age 18 years and above ( )

(4).before onset of sexual activity()

(5). before marriage ( )

(6). Others ……

2.9. Is there a need to offer adolescent boys SRH services as well?

Yes ( ) No ( ) Why? …….....

SRH problem dimensions

2.10. Do you think the following are major problems among adolescents?

	Strongly agree	Agree	Disagree	Strongly disagree
Unintended Adolescent pregnancy				
Sexually transmitted diseases/infections				
Acquiring HIV/AIDS				
Unsafe abortions				
Sexual and gender based violence				

2.11. Do you think the government is doing enough to address these problems among adolescents, and why? …….

C: PERCEIVED ACCESSIBILITY OF SRH SERVICES AMONG ADOLESCENT GIRLS MANAGED FOR ABORTION COMPLICATIONS IN KNH

Physical access

3.1. Have you ever accessed any of the following sexual and reproductive health services?

Service	Percentage
1. VCT/PICT services (including HIV counselling)	Yes ( ) No ( )
2. Testing for STIs (sexually transmitted infections)	Yes ( ) No ( )
3. STI treatment	Yes ( ) No ( )
4. Provision of Family planning	Yes ( ) No ( )
5. Abortion services	Yes ( ) No ( )
6. Receiving Post-abortion care	Yes ( ) No ( )
7. Antenatal/postnatal services	Yes ( ) No ( )
8. General counselling services	Yes ( ) No ( )

3.2. Where do you usually obtain the sexual and reproductive health services?

Facility	Percentage	Please Specify Service accessed **specify with numbers used in above question e.g. 1 (VCT),4 (family planning provision)*
Government/public facility	Yes ( ) No ( )	
Private facility	Yes ( ) No ( )	
Private health care provider	Yes ( ) No ( )	
Dispensary	Yes ( ) No ( )	
Pharmacy	Yes ( ) No ( )	
Traditional/herbal clinic	Yes ( ) No ( )	

3.3. What is the distance to the health facility(s)?

Facility	*Walking distance to facility*	*Requires less than Ksh.50*	*Requires more than Ksh.50*
Government/public facility			
Private facility			
Private health care provider			
Dispensary			
Pharmacy			
Traditional/herbal clinic			

Financial Cost

3.5. How financially accessible is the cost of sexual and reproductive services for adolescents?

Please indicate the health facility(s) ……

1) Free ( )

2) Affordable ( )
3) Not affordable/ expensive ( )

Perceived Barriers to access

3.6. Have you perceived/seen or experienced any barriers in accessing reproductive health services? Yes ( ) No ( )

If yes, what factors prevented you from accessing these services? **please indicate the facility(s)*……

Personal factors	
Did not know where to get/access these services	Yes ( ) No ( )
Age below 18 years	Yes ( ) No ( )
Unmarried	Yes ( ) No ( )
Did not see the need to get these services	Yes ( ) No ( )
Parents/community does not approve	Yes ( ) No ( )
Fear of being seen by someone I know	Yes ( ) No ( )
Facility/provider factors	
Facility was too far	Yes ( ) No ( )
High cost of transport to facility	Yes ( ) No ( )
High cost of treatment	Yes ( ) No ( )
Long queues	Yes ( ) No ( )
Inconvenient opening hours	Yes ( ) No ( )
Fearing lack of enough privacy/confidentiality	Yes ( ) No ( )
Fearing judgmental/unfriendly health care providers	Yes ( ) No ( )
Health care provider demanded unauthorized fees	Yes ( ) No ( )
Health care provider refused to give service/information	Yes ( ) No ( )
Did not find the service I wanted	Yes ( ) No ( )

3.7. Which reproductive health services were you denied?

Oral contraceptives ( ) Condoms ( ) Intrauterine device ( ) Emergency contraceptives ( ) Implant ( ) Injectable contraceptive ( ) Medical/surgical abortion ( ) Post abortion care ( ) STI management ( ) HIV/AIDS treatment ( ) antenatal/postnatal care ( )Sexual violence ()

Perception on adolescent activities

3.8. Do you think it is good to have adolescent activities at the heath facility like games and educational material?

Yes ( ) No ( )

D: ACCEPTABILITY OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENT GIRLS AND YOUNG WOMEN AND SATISFACTION OF SRH SERVICES RECEIVED

(These questions are based on the previous health facility/site you visited before coming to KNH)

4.1 Acceptability of reproductive health services received:

Facility

a) Do you find the available sexual and reproductive health services for adolescents acceptable to you?

Strongly agree	Agree	Disagree	Strongly disagree

b) At that facility you visited for reproductive health services, did you find a signboard in a language you understand explaining the operating hours of the facility and the services available there? Yes ( ) No ( )

c) Do you know of any other services provided for adolescents at the facility?

……

d) If you one day need to seek sexual and reproductive health services that are not offered at that facility, do you know where else to seek these services or whom to ask?

Yes ( ) No ( )

e) Did you see any informational material for adolescents including pamphlets, video and/TV at the waiting area of the facility? Yes ( ) No ( )

f) When you visited the facility, did you find that?

- working hours that are convenient for a reasonably short waiting time (that is you Yes ( ) No ( ) 30 minutes or less) Yes ( ) No ( )
- curtains on doors and on windows so that nobody can see you during the examination Yes ( ) No ( )
- comfortable seating at the seating are Yes ( ) No ( )
- Were the consultation areas clean Yes ( ) No ( )
- Were the toilets clean Yes ( ) No ( )

Health service provider

a) Did he/she inform you about the services available? Yes ( ) No ( )

b) Did the service provider treat you in a friendly manner? Yes ( ) No ( )

c) Was the service provider respectful of your needs? Yes ( ) No ( )

d) Do you feel confident that the information you shared with the service provider will not be disclosed to anyone else without your consent? Yes ( ) No ( )

e) Do you feel that the health information provided during the consultation was clear and that you understood it well? Yes ( )No ( ) f) Did the provider ask if you agree with the treatment/procedure/solution that was proposed? Yes ( ) No ( )

Parent/community acceptance

4.4. Which of the following is true?

g) Did you feel that you were involved in the decisions regarding your care? For example, you had a chance to express your opinion and it was listened to? Yes ( ) No ( )

h) Do you feel that he/she was friendly and he/she treated you with respect? Yes ( ) No ( )

i) How would you describe how you were handled by the doctor/nurse serving you?**please tick where appropriate*

Poor	Fair	Good	Very Good	Excellent
1	2	3	4	5

	Strongly agree	Agree	Disagree	Strongly disagree
My parents accept my utilization of adolescent sexual and reproductive health (SRH) services				
My parents encourage me to access and use SRH services				
The community/society accepts use of adolescent SRH services				
The community/society encourages adolescents and young people to access and use SRH services				

E: PREFERENCE OF TYPE OF SRH SERVICE DELIVERY AND PERSONAL RECOMMENDATIONS AMONG ADOLESCENT GIRLS AND YOUNG WOMEN

Whether integrated SRH services are more preferred than stand-alone sexual and reproductive health (SRH) services

5.1. Do you prefer receiving sexual and reproductive health (SRH) and HIV services at the same facility, or do you prefer visiting different facilities?

a) I prefer being seen at the same facility/site	Yes ( ) No ( )
b) I prefer being seen at a different facility/site	Yes ( ) No ( )
c) I have no preference	Yes ( ) No ( )

5.2. What do you think are some of the possible advantages/benefits and the disadvantages of receiving all these services from the **same facility at one time**?

Benefit	*Percentage*
Reduce trips to the facility	Yes ( ) No ( )
Reduce cost of treatment	Yes ( ) No ( )
Reduce waiting time	Yes ( ) No ( )
Reduce transportation costs	Yes ( ) No ( )
Reduce stigma for HIV	Yes ( ) No ( )
Good opportunity to access additional health services	Yes ( ) No ( )
Improved efficiency of services	Yes ( ) No ( )
Disadvantage	*Percentage*
Fearing stigma/discrimination	Yes ( ) No ( )
Increased waiting time	Yes ( ) No ( )
Fear of less confidentiality	Yes ( ) No ( )
The health provider will be too busy	Yes ( ) No ( )
Decreased quality of services	Yes ( ) No ( )
Embarrassment to talk about some things (e.g. HIV) with provider from the same neighborhood	Yes ( ) No ( )

5.3. When receiving sexual and reproductive health care, do you prefer: ***tick where appropriate*

Being seen as only females/girls at the clinic/site	Yes ( ) No ( )
Being seen with other older women coming for the same services at the facility	Yes ( ) No ( )
Being seen with only girls your age/adolescent girls	Yes ( ) No ( )
Being seen at specific times of the day or week e.g. after 5pm or on weekends	Yes ( ) No ( )
Being seen in specific rooms/areas allocated only for adolescents i.e. adolescent clinic	Yes ( ) No ( )
Having adolescent friendly activities at the health facility available e.g. a recreational area, television, games	Yes ( ) No ( )

Why do you prefer being seen in the above arrangement?

……..

Thank You!

***Integra Initiative **WHO Access to Health Services for Young People for Preventing HIV and Improving Sexual and Reproductive Health*

QUALITATIVE RESEARCH TOOL

Focus group discussion interview tool

1. How would you describe your experience in receiving sexual and reproductive health services?
2. Where do you access information on reproductive health and where to seek reproductive health services? Why do you seek information through this source? Probe
3. What do you think is the appropriate age for a young person to be introduced to sexual and reproductive health information and services?
4. Where do young people usually seek sexual and reproductive health services? Which ones do you seek and why do you seek them there?
5. How frequently do you think young people should seek these services? Probe
6. Which do you feel are the main barriers adolescents face in accessing and utilizing reproductive health services? Probe. What do you think can be done about them?
7. Do you feel the available reproductive health services are adequately tailored for adolescents? Do you find them acceptable to adolescents and why? Probe
8. In your opinion, what is the best way sexual and reproductive health services can be tailored to better meet young peoples' reproductive health needs? Probe
9. Are there initiatives in place that you feel supports the provision of these sexual and reproductive health services to adolescents and young people? (e.g. NGOs, churches, government)
10. How do you prefer adolescent reproductive health services to be tailored to improve awareness, access and utilization of these services among adolescents? Probe

Appendix III: TIMELINE

	2018		2019				2020

	July-December	January-February	March-July	July-November	October-November	November-December	January-March 2020
Proposal development							
Proposal presentation							
Ethics Committee Review							
Data Collection							
Data Analysis							
Results Presentation							
Publication							

Appendix IV: BUDGET

Item	***Quantity***	***Unit Price***	***Total Cost Ksh***
Stationery			
Printing and photocopying	-	-	20,000
Pens	10	20	200
Spring files	3	100	300
Personnel			
Communication with personnel	5	500	2,500
Statistician	1	20,000	20,000
Qualitative researcher	1	20,000	20,000
Research assistants	3	10,000	30,000
Training cost	1	5,000	5,000
Travelling costs for participants	10	500	5,000
Compensation for participants after interview	10	500	5,000
Others			
Ethics and review committee (KNH/UON)	1	2,000	2,000
Ethical committee (Ministry of Education)	1	2,000	2,000
TOTAL			**112,000**

Appendix V: DUMMY TABLES

A) General Characteristics

Characteristic	*Percentage*
Age	
Marital status	
- Single	
- Cohabiting/married	

- Separated/divorced	
Maximum education level	
- Primary school	
- Secondary school	
- College/university	
Regular source of income	
- Gainfully employed	
- Self-employed	
- Student	
Religion	

B) Level of awareness of available SRH services among adolescent girls

Service	*Knows about presence*	*Knows about location*
VCT services	Yes ( ) No ( )	Yes ( ) No ( )
Family planning services for adolescents	Yes ( ) No ( )	Yes ( ) No ( )
STI management and treatment	Yes ( ) No ( )	Yes ( ) No ( )
Counselling services	Yes ( ) No ( )	Yes ( ) No ( )

C) Perceived Accessibility of SRH Services among Adolescent girls

Service	Percentage
1. VCT/PICT services (including HIV counseling)	Yes ( ) No ( )
2. Testing for STIs (sexually transmitted infections)	Yes ( ) No ( )
3. STI treatment	Yes ( ) No ( )
4. Provision of Family planning	Yes ( ) No ( )
5. Abortion services	Yes ( ) No ( )
6. Post-abortion care	Yes ( ) No ( )
7. Antenatal/postnatal services	Yes ( ) No ( )
8. General counselling services	Yes ( ) No ( )

D) Acceptability of SRH Services among Adolescent girls

	Strongly agree %	Agree %	Disagree %	Strongly disagree %
I was happy overall with the services				
Waiting times are long				
All my expectations were met				
I felt that my consultation was private/confidential				
Doctor/nurse were always available				
Health provider answered all my questions adequately				
I would refer the facility to a friend				
I would come back for the same/similar services at the same facility				

E) Preference of Type of SRH Service Delivery

Preference
a) Prefer same facility/site
b) Prefer a different facility/site
c) No preference

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Ref: KNH-ERC/A/211

6th June, 2019

Dr. Priscilla W. Wanjohi
Reg. No. H58/87159/2016
Dept. of Obstetrics and Gynecology
School of Medicine
College of Health Sciences
University of Nairobi

Dear Dr. Wanjohi,

RESEARCH PROPOSAL: AWARENESS, ACCESS AND PREFERENCES OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES (SRHS) AMONG ADOLESCENT GIRLS MANAGED FOR ABORTION AT THE KENYATTA NATIONAL HOSPITAL (P134/02/2019)

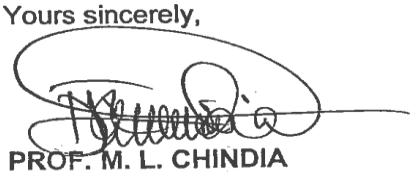
This is to inform you that the KNH- UoN Ethics & Research Committee (KNH- UoN ERC) has reviewed and **approved** your above research proposal. The approval period is 6th June 2019 5th June 2020.

This approval is subject to compliance with the following requirements:

a. Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b. All changes (amendments, deviations, violations etc.) are submitted for review and approval by KNH-UoN ERC before implementation.
c. Death and life threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH-UoN ERC within 72 hours of notification.
d. Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH- UoN ERC within 72 hours.
e. Clearance for export of biological specimens must be obtained from KNH- UoN ERC for each batch of shipment.
f. 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*).
g. Submission of an *executive summary* report within 90 days upon completion of the study. This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/ or plagiarism.

For more details consult the KNH- UoN ERC website **http://www.erc.uonbi.ac.ke**

Yours sincerely,



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Ref: KNH-ERC/ Mod&SAE/425

September 24, 2019

Dr. Priscilla Wanjiku Wanjohi
Reg.No.H58/87159/2016
Dept.of Obs/Gynae
School of Medicine
College of Health Sciences
University of Nairobi

Dear Dr. Wanjohi

Re: Approval of modifications – study titled 'Awareness and access of sexual and reproductive health services among adolescent girls and young women managed for abortion at the Kenyatta National Hospital (P134/02/2019)

Refer your communication dated August 25, 2019.

The KNH-UoN ERC has reviewed and **approved** modification to modify the age cut-off of the eligible study participants from those who are 19 years of age and below to those who are 25 years of age and below in order to acquire the required sample size.

These changes are incorporated in the revised proposal and are acceptable.

Yours sincerely

PROF. M. L. CHINDIA
SECRETARY, KNH-UoN ERC

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