FACTORS INFLUENCING THE UPTAKE OF ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH SERVICES IN RUBANDA DISTRICT, SOUTH WESTERN UGANDA

BY

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DECLARATION

I, Amon Tayebwa, declare that this dissertation is my original work and that it has not been submitted to any other University or institution of higher learning for any other award.

Signature  …. Date: 25th/5/2023

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APPROVAL

I certify that this research report has been submitted for examination with my approval as his supervisor.

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DEDICATION

I dedicate this work to my Family members who make me laugh when times are tough; their smile leaves my face with unconditional love and joy.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ARH	Adolescents Reproductive Health
ARHS	Adolescents reproductive health service
ASRH	Adolescents sexual and reproductive health
CERCA	Community-Embedded Reproductive Healthcare for Adolescents
CINAHL	Cumulated Index to Nursing and Allied Health Literature
FMOH	Federal Ministry of Health Ethiopia
FHI	Family Health International
FGD	Focus Group Discussion
HINARI	Health Internetwork Access to Research Initiative
HMIS	Health management information system
HIV	Human immunodeficiency virus
ICPD	International Conference on Population and Development
KII	Key informant interview
LGA	Local Government area
NGO	Non-Governmental Organization
PHCC	Primary health care Centres
RH	Reproductive health
RHS	Reproductive health service
SEM	Social-ecological model
SRH	Sexual reproductive health
SRHS	Sexual reproductive health services
STD	Sexually transmitted diseases
TOP	Termination of Pregnancy
UBOS	Uganda National Bureau of Statistics
UDHS	Uganda demographic health survey
VCT	Voluntary Counseling Testing
YFS	Youth-friendly Services
HTC	HIV Testing and Counseling
HBM	Health Belief Model

DEFINITION OF TERMS

An adolescent: This is a person who falls in the years ranging from 10 to 19 years of age, (WHO, 2010).

Young people: Both male and female, range from ages of 10 and 24 (WHO, 2014)

Sexual health World Health Organization defines sexual health as well-being with regard to sexuality; it is not just the mere lack of disease, dysfunction, or ill-health.

Reproductive health services

These are services provided in reproductive health which include deterrence, diagnosis, and management of conditions related to sexually transmitted infections (STIs), contraceptive service, pre- and post-natal care, delivery care, safe abortion and post-abortion care, and access to information and education on the above issues (United Nations General Assembly, 1995).

Adolescents' sexual and reproductive health

Adolescents' sexual and reproductive health refers to the physical as well as the emotional well-being of adolescents, which includes the ability to remain free from unwanted pregnancies, risky abortion, maternal demise and incapacity, all kinds of sexual ferocity and compulsion, as well as sexually transmitted diseases such as HIV/AIDS(WHO, 1998).

Uptake of adolescents' sexual and reproductive health services

Use of modern contraceptives, use of services provided by professional medical personnel/ trained medical personnel, use of a health institution (facility) for childbirth, as well as receipt of post-partum examination and counseling of adolescents and the health facility.

Service uptake: This is the ability to access and make use in a proper way of the available sexual reproductive health services. For this study, sexual reproductive health services was referred to as "the use of family planning services, HIV counselling, and testing and sexually transmitted infection (STI) examination and treatment by or for adolescents".

Youth: Is defined by the World Health Organization as people of 15-24 years and young people of 10-24 years of age (WHO, 2014).

ABSTRACT

Introduction: Globally, adolescents face a remarkable challenge of insufficient access to sexual and reproductive health (SRH) education and services. However, even where such services exist, often their uptake by the adolescents tends to be low as a result of a number of factors. The main aim for this study, therefore, was to assess the factors influencing the uptake of adolescents' sexual and reproductive health services in Rubanda District.

Methodology: The study adopted descriptive cross-sectional design with qualitative and quantitative approach. A total of 387 adolescent respondents drawn from target population of 21273 were involved in the study that used a self-administered questionnaire and focus group discussions. Key informant interviews were also carried out at selected health facilities. Quantitative data was analysed using Statistical Package for Social Sciences (SPSS) version 24.

Results: Of the 387 study participants, 136(35.1%) accessed ASRH services in Rubanda district. The most commonly offered ASRH was HIV testing and counselling, 66(17.1%), while most ASRH services were offered at Hamurwa HC IV, 93(24.0%) and Muko HCIV 45(22.4%). The results also revealed that older age (18-19 years; AOR= 2.1; 95%CI: 1.2-3.5, p <0.001) and residence in other town council than Bubaare (Hamurwa; AOR = 2.1, 95%CI: 0.8-5.8, p = 0.134; Rubanda; AOR = 3.6; 95%CI: 1.9-6.7, p <0.001; Ikumba; AOR = 3.6; 95%CI: 1.9-6.9, p <0.001) were associated with higher access to ASRH services, while females were less likely to utilize ASRH (AOR= 0.5, 95%CI: 0.3-0.9, p = 0.020).

Conclusions and recommendations: The uptake of SRHS in the study was low and was attributed to age, sex, and residence; and there were suggestions that it could be improved by making the health facilities comfortable for adolescents, particularly by providing separate units and time for the consultations. The study recommends strengthening access to youth-friendly reproductive health services by according the adolescents the privacy they need.

CHAPTER ONE
INTRODUCTION

1.1 Study background

The World Health Organisation (WHO) has defined an adolescent as a person who falls in the years ranging from 10 to 19 years of age (WHO, 2010). Adolescents make up about 1.2 billion of the world's population; and more than a half of them live in developing nations with 226 million people or 23% of the overall population living in Sub-Saharan Africa (SSA) (Abdurahman, Oljira, Hailu, & Mengesha, 2022). Since adolescence is a unique period of physical, psychological, emotional and social maturation from childhood to adulthood (Orben et al., 2020), it is a stage in life when people can make some irrational decisions and undertake actions that may expose them to risk and unintentional harm, including the risk early death. High on the list of potential risks are those related to sexual and reproductive health. Adolescents' sexual and reproductive health is a public health concern due to high rates of early pregnancies, abortions and STIs in this population (Ansha et al., 2017).

Reproductive health has been defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and processes (Abobaker, Elbarbary, & Elian, 2020). The three main sexual and reproductive health risks that have a greater impact on adolescents' reproductive health than on adult reproductive health are pregnancy, abortion, and STIs (Abdurahman, Oljira, Hailu, & Mengesha, 2022); and this is attributed to a number of factors such as individual, social and health system factors that influence adolescents' access to and use of adolescent sexual and reproductive health (ASRH) services (Nmadu, 2017).

The uptake about 12.8 million adolescents between the ages of 15 and 19 give birth unexpectedly and each year more than 2 million of them have unsafe abortions for a number of causes (Ansha et al., 2017). Furthermore, a study by Abdurahman (2022) revealed that one in four women give birth before the age of 18 years. Since girls who deliver during adolescence have a greater risk of death than women who have children in their early 20s, and their babies tend to have lower birth weight, more health complications, and greater risk of neonatal death (Chandra-Mouli et al., 2015), this makes the need for uptake of ASRH services even more imperative. Using ASRH services properly by adolescents helps to prevent unwanted pregnancy, STDs, respond to unwanted pregnancy when it occurs, to support a healthy pregnancy and prevent problems during pregnancy and help manage the

likely related complications (WHO, 2012). As such, 1.5 million young people aged 10-24 years died in 2019, world over, due to different causes including no or poor uptake of SRHS (WHO, 2021).

Adolescents' healthcare needs differ from those of adults, especially in the area of sexual and reproductive health and rights (Jana et al., 2012).Therefore, understanding of this age group's biological, psychosocial, and health needs is of great importance (Jana et al., 2012).

Although access and uptake of SRH services are helpful in minimizing health problems faced by adolescents, such as their ability to attend school, work, and their overall health (Kristen *et al*., 2016), studies have revealed that the uptake of ASRH services remains low in developing countries including Uganda. Different studies conducted in different countries in Africa such as Ethiopia, and Nigeria have shown that, generally, the uptake of adolescents sexual and reproductive health services is low (Wassie et al., 2016; Nmadu, 2017;Adam *et al*., 2018). Also, a study by Abdurahman (2022) on factors associated with utilization of sexual and reproductive health services among adolescents attending secondary schools in Ethiopia, indicated that AIDS-related death among adolescents tripled from 21,000 to 60,000 in 2014. With the current widespread of ARVs, enhanced uptake of ASRH services would be expected to bring down such figures.

In a study by Ansha et al. (2017) on reproductive health service utilization and associated factors among adolescents in Anchar District, Ethiopia, it was found that out of the 402 respondents studied, up to 60% of women admitted for abortion complications were young women.

In this regard, according to Adam et al. (2018) on issues prompting access to reproductive health information services among the youths in Ethiopia, only 35.7% of the youths reported that they had an acceptable uptake of youth-friendly information and guidance on issues relating to sexual and reproductive health against 64.3% who required these sexual and reproductive health services and facts. Furthermore, in Nigeria, ASRH uptake by the adolescents was found to be low mainly due to factors such as individual, social, and health system factors that influence adolescents' access to and use of the services (Nmadu, 2017).

In the Ugandan situation, ASRH services are obtained from hospitals, health facilities, and clinics spread throughout the country. In this connection, the Uganda AIDS Commission in 2017 reported that 500 girls were acquiring HIV weekly and that 2 in every 5 girls had HIV

that was attributed to different factors including low uptake of adolescents' sexual reproductive health services (MOH Report, 2017).

In Rubanda district, it has been reported that 25% of the population is made of adolescents (UBOS,2016). The district has two Health Centre IVs in each parliamentary constituency and 7 health Centre IIIs which all offer adolescent sexual and reproductive health services at their level which include HIV testing services, pregnancy consultation and management, heath education and counselling, STI consultation and management and post-abortion care. However, despite the availability of these services adolescents pregnancy is still a public health concern as it stood at 17% and 18 % in 2018 and 2019 respectively (DHIS2, 2019) and between July and December 2020, a total of 751 (18%) adolescent pregnancies were recorded in Rubanda District (DHIS2, 2020).

Though Kigezi sub-region where Rubanda District is found, reported 7,712 cases of adolescent pregnancies in 2021, this is still significant in comparison to 354,736 cases for the entire Uganda (UNFPA, 2022), and if nothing is done to reduce the number, Uganda shall keep on experiencing challenges of adolescent pregnancies, and related outcomes such as early marriages, school dropouts, child labour, more street children, children with un-identified fathers, grandparents caring for their grandchildren, low literacy of such a population as well as poor quality of life.. Therefore, researching on the factors influencing the uptake of ASRH service in Rubanda District would help to establish the reasons behind low uptake of the ASRH services. Coupled with this, suggestions of the measures to improve ASRH uptake could be useful in improving not only the sexual and reproductive health of adolescents but also the entire population of Rubanda District and Uganda at large.

1.2. Statement of the problem

In spite of the fact that adolescents are exposed to potentially high risks related to sexual and reproductive health, a number of studies have revealed low levels of uptake of available ASRH services. This is of public health concern due to high rates of early pregnancies, abortions and STIs that tend to afflict this population (Ansha et al., 2017). In Uganda, the rate of adolescent pregnancy is reported to have increased from 24% to 25% in the years 2011 to 2016 (UBOS, 2016a). Also, a study by Kemigisha et al. (2018) found that 90% of the adolescents in the study had had sex without using any protection that exposed them to the risk of acquiring HIV/AIDS, STIs and unintended pregnancies (Kemigisha et al., 2018). Though Kigezi sub region has a rate of 16% adolescent pregnancy compared to 25% of the entire nation, it is still significantly high and this could be attributed to low uptake of sexual

and reproductive health services (UBOS, 2016b). In Rubanda District alone, teenage pregnancy was reported at 17% in 2018 and 18 % in 2019, and HIV prevalence among the teenage mothers who attended their first antenatal clinics in 2018 and 2019 was reported at 19 % (DHIS2, 2019). These teenager mothers also had poor ANC attendance that exposed them to transmitting some infections, including HIV/AIDS, to the unborn babies (DHIS2, 2019).

One of the arguments advanced is that adolescents face a lot of problems while accessing sexual and reproductive health services due to lack of awareness. Other reasons suggested are that where these services do exist, they do not focus on youth with most of them, including adolescent mothers, having limited access to these health services as most of the institutions providing them do not satisfy the criteria for providing youth-friendly services Nakkazi , (2016).

Underutilization of the ASRH services leads to increased risk of HIV and STIs and it has been shown that after age 15, there is a sharp rise in HIV/AIDS (Ministry of Health of Uganda, 2011).

It is out of the above-related studies that a researcher was interested in to find out the factors that hinder the acceptance of Adolescents' sexual and reproductive health services in Rubanda District yet they continue to experience similar challenges year in year out.

Although there has been research carried out elsewhere on the uptake of sexual and reproductive health services, most studies have largely concentrated on analysis of adolescents, young people and the youth as broader categories. In the studies reviewed (Binu et al., 2018; Khan & Mishra, 2008; Mulugeta et al., 2019; Woog, Singh, et al., 2015), it was noted that limited studies concentrated on the access to sexual and reproductive health services by adolescents specifically, yet they can also be considered a sensitive and vulnerable group of people of their own who need special attention in terms of reproductive health. Also, few studies (Mulugeta et al., 2019; Woog, Singh, et al., 2015) have been conducted on the knowledge and awareness of sexual and reproductive health services, and some factors that could possibly influence the access and uptake of these services. No studies tackled the issue of measures to avert the situation especially when it comes to the Kigezi region. This study, therefore, was undertaken to determine the factors affecting the uptake of ASRH services in Rubanda district so that the results could be used mitigate the negative outcomes of underutilization of ASRH services such as teenage pregnancies and associated

health problems like STIs and HIV infections.

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1.3 Research questions

1. What is the proportion of adolescents in Rubanda District accessing sexual and reproductive health services?
2. What are the factors associated with uptake of adolescents' sexual and reproductive health services in Rubanda District?
3. What are the measures that could be used to improve the uptake of adolescents' sexual and reproductive health services in Rubanda District?

1.4 Objectives of the study

1.4.1 General objective

To identify factors influencing the uptake of adolescents' sexual and reproductive health services in Rubanda District.

1.4. 2 Specific objectives

1. To determine the proportion of the adolescents accessing reproductive health services in Rubanda District.
2. To establish the factors associated with uptake of reproductive health services among adolescents in Rubanda District.
3. To document participant-proposed measures to improve the uptake of adolescents sexual and reproductive health services among adolescents in Rubanda District.

1.5 Significance of the study

The study results are expected be used by the policy makers and other implementing partners in designing strategies to address the challenges facing the adolescents while trying to access and use sexual and reproductive health services in Rubanda District, the Kigezi subregion and possibly the nation at large.

Furthermore, the findings of this study may be used as a point of a reference to researchers interested in investigating accessibility and uptake of sexual and reproductive health services in different parts of the country.

1.6 Justification of the study

The Ministry of Health Uganda, United Nations Population Fund (UNFPA) and its partner organizations have equipped health facilities with health workers of different cadres in a bid to ensure that adolescents get all the required services such as family planning services,

antenatal services, and HIV counseling and testing services. However, despite such interventions adolescents keep on experiencing sexual and reproductive health challenges such as teenage pregnancies and its related challenges where Rubanda District is also included.

Some reports have indicated that even in areas where health services are available, adolescents have trouble accessing them. Studies have suggested a number of possible reasons among which are restrictive cultural or religious beliefs health facilities being located at long distances from where adolescents live or study, health services being expensive to the adolescents, fear among the adolescents (some adolescents shying away from health services for fear of being seen by certain people) while some young people do not approve of what they refer to as unpleasant procedures subjected to them with some reports indicating that girls and street children complain of some form of stigma whenever they visit some service providers (Kemigisha et al, 2018).

Furthermore, some reports have indicated that the extent to which the sexual and reproductive health services are to adolescents the more likely they are used. In addition, there are also the contextual factors which have been reported to limit the uptake of adolescents' sexual and reproductive health services which include political will, community dialogues with parents and guardians, recreational facilities in the community, low socioeconomic status of parents, negative attitudes of parents and community leaders, as well as access to health services.

Prior to this study, one could not tell whether or not what was reported in literature could also apply to Rubanda district in particular and the Kigezi subregion in general. This study was, therefore, necessary to establish the actual facts on the ground so that appropriate interventions could be designed by policy makers after establishing the actual level of uptake of ASRH services the factors influencing the uptake and the suggested measures to improve on access and uptake of ASRH services.

1.7. The scope of the study

1.7.1 Content scope

The study focused on factors associated with the uptake of adolescents' sexual and reproductive health services in Rubanda District. It explored the demographic, socio-economic, cultural and health system factors associated with the uptake of reproductive health services in the same District. It also documented the measures suggested by the

participants that could be used to improve the uptake of adolescent sexual and reproductive health services in Rubanda District.

1.7.2 Time scope

The study was conducted from March 2022 to March 2023.

1.7.3 Geographical scope

The study was conducted in Rubanda District specifically in the sub-counties of Bubaare and Ikumba , and the town councils of Hamurwa and Rubanda . Rubanda District lies in southern western Uganda in Kigezi sub region and it is one of the most-densely populated districts in the region. The district is divided into two parliamentary constituencies and these are Rubanda East and Rubanda West constituencies.

1.8. The conceptual framework

The independent variables in the study were taken to include socio demographic factors covering age, sex, SRH knowledge, religion, marital status, occupation, level of education, family economic status and area of residence; environmental factors covering Policy on sexual and reproductive health, community dialogues with parents and guardians, recreational facilities in the community, and environmental distractions, attitudes of parents and community leaders, and availability of ASRH information sources ; as well as health facility factors covering waiting time, distance from health facility, cost of services, health worker attitude, availability of resources and availability of youth sensitization programs in the health facilities.

The dependent variable was uptake of reproductive health services which was measured in terms of extent of utilization of sexual and reproductive health services including family planning services, HIV counseling and testing services and STI management, among other services. However, change in the dependent variables could be determined by the intervening variables like intervening variables such as stigma and depression following premarital pregnancy.

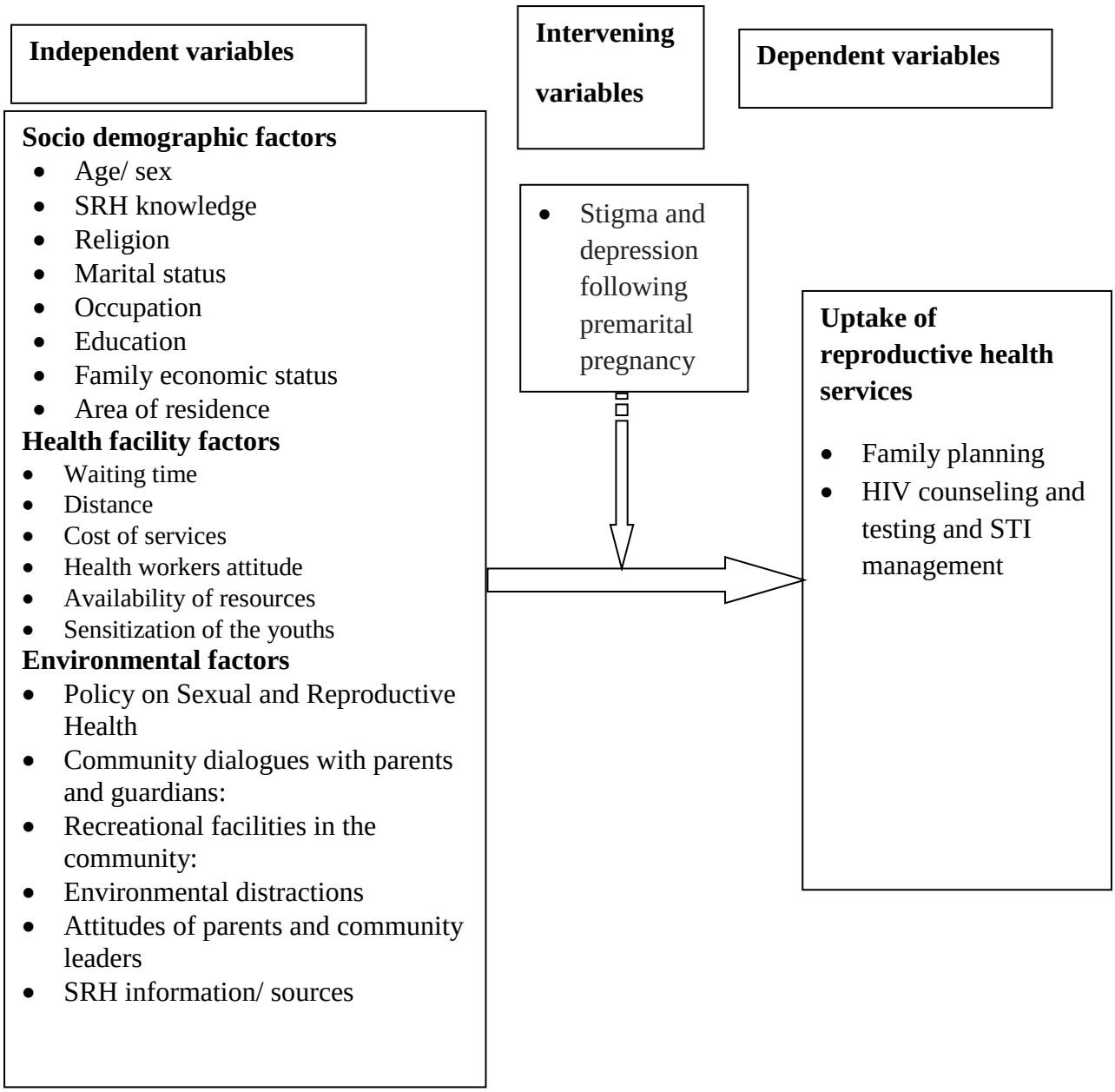


Figure 1:Conceptual framework (Adopted from Andersen's revised model of health services use (Andersen, 1995)

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter is about the literature related to the study. In reviewing this literature, the researcher was guided by the study objectives as shown below.

2.1 Theoretical framework

The study was underpinned by two models, namely: (i) Health Belief Model (HBM); and (ii) the Andersen's Phase Two Model.

2.1.1 The Health Belief Model

The Health Belief Model (HBM) is a model which was developed in the early 1950s by social psychologists Hoch Baum, Rosen Stock and others at the U.S. Public Health Service in order to understand the failure of people to adopt disease prevention strategies or screening tests for the early detection of disease (Rosenstock, 1974). Later uses of HBM were for patients' responses to symptoms and compliance with medical treatments. The HBM suggested that a person's belief in a personal threat of an illness or disease together with a person's belief in the effectiveness of the recommended health behaviour or action would predict the likelihood that the person would adopt the behaviour (Janz and Becker, 1984: Huang et al., 2020).

The major constructs in the HBM include perceived susceptibility; perceived severity; perceived benefits; perceived benefits, perceived barriers, cues to action and self-efficacy which are described in detail here below:

2.1.1.1 Perceived susceptibility

This refers to a person's subjective perception of the risk of acquiring an illness or disease. In relationship to the HBM to the uptake of adolescents sexual and reproductive health services in Rubanda District, if the adolescents perceived that they were susceptible to STDs, unwanted pregnancies, unsafe abortions, they would be more likely to adopt the preventive measures like abstinence, and use of contraceptives to protect themselves from unwanted pregnancies and sexually transmitted diseases (STDs).

2.1.1.2 Perceived severity

This refers to a person's feelings on the seriousness of contracting an illness or disease (or leaving the illness or disease untreated). For example, one is likely to use preventive measures like abstinence and use of condoms to protect themselves from sexually transmitted diseases like HIV when they perceive that there is a threat of death from the disease.

2.1.1.3 Perceived benefits

Perceived benefits refer to a person's perception on the effectiveness of various actions available to reduce the threat of illness or disease (or to cure illness or disease). In relationship to the HBM to the uptake of adolescents' sexual and reproductive health services in Rubanda District, adolescents would be likely to increase their level of uptake once they perceive that there would be benefits associated with it, for example prevention of contracting sexually transmitted infections (STIs).

2.1.1.4 Perceived barriers

Perceived barriers refer to a person's feelings on the obstacles to perform a recommended health action. If adolescents perceived that there were some barriers that hinder them from accessing and utilizing SRHS services such as long waiting hours, long queues, negative attitudes of health workers, long distances from their homes up to the facilities, and high cost of services, they would be likely not to utilize the available SRHs.

2.1.1.5 Cue to action

Cue to action is the stimulus needed to trigger the decision-making process to accept a recommended health action such as self-efficacy, the level of a person's confidence in his or her ability to successfully perform a behaviour (Rosenstock, 1974). It is expected that adolescents would be likely to utilize the ASRHS in case there are cues or motivations to action. Cues to action include availability of the services, sensitization about the available services, positive attitude from the health workers, and a youth-friendly infrastructural design, among others.

2.1.2 Andersen's Phase Two Model

The Andersen's Phase Two Model of health service utilization (Andersen & Newman, 2005) is a behavioural model that provides a systems perspective to investigating a range of individual, environmental and provider-related variables associated with decisions to seek

health care. It proposes that the use of health care services is a function of three categories of determinants: (i) the predisposing characteristics which mainly explain the association of demographic factors such as age, sex and education level and consumption of health services; and (ii) the enabling characteristics (community resources) include, family income or economic status, location of residence, access to health care facilities and availability of persons and health care system characteristics that include health policy, resources and organization.

2.2. Adolescents' sexual and reproductive health services

As adolescents transition from childhood to maturity, they have conflicting health preferences and experiences and unusual reproductive health flaws (Roy et al, 2007). To effectively handle their sexual and reproductive health desires, adolescents require specific, appropriate, accessible and welcoming facilities (WHO, 2012). Furthermore, it is important that adolescents receive services with their consent, in a private, discreet setting. This implies that their religious affiliation (faith and traditional values) needs to be acknowledged, and these events must adhere to pertinent, prevailing international agreements and resolutions (UN, 1994).

The SRH services required by the youths include contraception services, adolescent antenatal care services, obstetric and gynecological services, safe abortion services, post-abortion services, HIV prevention, testing and counselling services, STI prevention and treatment services, among others. In Uganda, different ASRH services are provided and available at all levels and they include HIV testing services, pregnancy consultation and management, heath education and counselling, STI consultation and management and post-abortion care. For example, at a Health Centre II at a parish level there is a mid-wife or an enrolled nurse who can at least provide family planning services to sexually active mothers. At a health centre III which is usually at a sub county level, more ASR services including family planning, HTS services, and health education are provided as it has more health workers. At Health Centre IV, more specialized services are provided to adolescents, for example family planning, HTS services, health education and post-abortion care services as is the case in Rubanda District.

2.3 Proportion of the youths/ adolescents accessing sexual and reproductive health services

In Asia, contraceptive uptake among sexually active adolescents has been reported to be low (Gubhaju, 2002). The contraceptive uptake for Ethiopia stands at 35%, which is almost half

of the expected level for the Federal Democratic Republic of Ethiopia and there are many adolescents who are contraceptive-naïve and are uncomfortable with using such kind of reproductive health services (Negash et al., 2016). Similarly, Woog et al. (2015) reported that modern use of family planning was low among married adolescents in all parts of Africa with few active adolescent seeking health care at the health facilities after contracting STDs (Woog, et al., 2015).

Research evidence has also shown that adolescents in developing countries underutilize reproductive health services. For example, according to the report on adolescents' use of SRH services in 70 developing countries (Woog, et al., 2015), it was found that the majority of adolescents did not use contraceptives, utilize services for care for STDs and testing for HIV. When it comes to HIV testing and counselling services, the majority of adolescents, who are at the risk of acquiring HIV infection did not access testing services and thus did not know their status (WHO, 2009). Furthermore, due to low health services uptake among the adolescents, one study found that 2% of adolescent girls in Western Africa and 34% in Southern Africa who had tested for HIV in the past 12 months were found to be positive (CSA, 2011).

Furthermore, Woog, et al. (2015) reported that contraceptive use was low amongst married adolescents in all parts of Africa and a few number of sexually active adolescent women who had sexually transmitted diseases sought care at a health facility. On comparison, youth were less likely than adults to know a place where they could get the sexual and reproductive health services (SRHs) (CSA, 2011) and knowledge of a place to get SRH services increased steadily with education and wealth (CSA, 2011). Among unmarried sexually active adolescents in Sub-Saharan Africa, contraceptive use ranged from a low of 3% in Rwanda to a high of 56% in Burkina Faso (Khan & Mishra, 2008).

Although there are some efforts by adolescents to seek for pregnancy-related care, it has been shown to be delayed or inadequate. According to some studies conducted in sub-Saharan African and Asian countries, it was found that young mothers were much more likely to delay seeking antenatal care (Kamal et al., 2015) and less likely to acquire adequate antenatal care, compared to older mothers (Atuyambe et al., 2008). Even skilled birth attendant exposure has been found to be low among adolescents giving birth in emerging countries, despite the higher danger related to young maternal age (Cappa et al., 2012).

Other studies have reported less comprehensive national usage of abortion and post-abortion

care services (Claeys, 2010). For example, evidence from studies in 12 developing countries found out that adolescents had a higher tendency to look for abortion services from untrained providers compared with older women and, as a result, adolescents accounted for a sizeable portion of post-abortion care patients (Claeys, 2010). Also, data available from countries like Dominican Republic, India, Kenya and Malawi reported adolescent post-abortion care patients ranging from 21% in Malawi to 34% in the Dominican Republic (Claeys, 2010). Another report in 2015 showed that adolescents were less likely to seek and obtain safe abortion services than older women (Woog, et al., 2015).

In Addis Ababa, the sexual and reproductive health service uptake by students was low and youth were exposed to high-risk behaviours such as alcohol drinking and use of addictive substances like Khat chewing and shisha smoking which were associated with reproductive health risks (Mulugeta et al., 2019).

Furthermore, evidence from different countries shows that despite having high level of knowledge about SRH services, the rate of utilization still remains very low among adolescents have been found to (Ayehu et al., 2016) be reported at 51% in Nigeria and 38% in Malawi.

2.4 Factors influencing uptake of adolescent sexual and reproductive health services

2.4.1Socio economic factors and cultural factors associated with uptake of adolescent sexual and reproductive health services

2.4.1.1 Age

Adolescents aged between 15-19 years have been reported to use the ASRH services two times more than those ranging from 10-14 years; and adolescents with secondary education use services two times more likely than elementary school adolescents(Tilahun et al., 2010).

2.4.1.2 Level of education

A study in Northwest Ethiopia and another study in Kenya showed that higher education status was positively associated with SRH service utilization (Amanuel & Seme, 2013). Education was a significant social variable affecting utilization of reproductive health services as a result of disclosure of Adolescents' sexual and reproductive health services information and secondary behavior changes. (Amanuel & Seme, 2013).

Education level mainly secondary education, has always been found to be associated with a whole range of better sexual and reproductive health services outcomes such as contraceptive use, age at marriage, number of given births, and general use of health services. A study on risk and protective factors for adolescents' sexual and reproductive health services in low- and middle-income countries found that adolescents in learning centers are less likely ever to have had sex compared with those who leave school early. Furthermore, the more years adolescents remain in school, the greater the chances that modern contraceptives would be used (Svanemyr et al., 2015).

2.4.1.3 Religion, traditional values, cultural beliefs and laws

Reproductive health is also driven by values, cultural beliefs and traditions adhered to by different communities and these can serve as barriers to accessing and utilizing ARHS (Kamau, 2006). Cultural and religious factors create an unfavorable environment for discussion of ASRH due to the strongly rooted sense of condemnation of Adolescents sexual activity (Morris & Rushwan, 2015). Studies have also shown that religion is a major barrier to Adolescents sexual and reproductive health services uptake (Godia et al., 2013; Mbeba et al., 2012).

Further reports indicate that the majority of adolescents are left out from services that would help to reduce the risk of sexually transmitted infections or that would assist them to avoid pregnancies because of laws that lower their access to these services without permission from their caregivers (Cappa et al., 2012).

Religious values usually prevent the open discussion of sexual matters and this tends to reduce adolescents' access to basic reproductive health information and services. Research has found that adolescents remain sexually active despite these moral inhibitions and often end up with unfavorable outcomes (Chikovore, 2004). They may ask for help from trusted friends or siblings or go to private clinics and access care from clinics that are far from their homes (Tylee et al., 2007). However, if adolescents are supported by parents, family and other community members they are better equipped to make healthy choices (Gavin et al., 2010)

Studies have also reported that the preference of adolescents to see health providers of the same sex is a barrier to uptake of services (Newton-Levinson et al., 2016) . For example, a

study in Malawi reported adolescents not accessing services because they had problems with explaining genital issues to a provider of the opposite gender (Munthali et al., 2013).

Furthermore, mainstream adolescents in Ethiopia tended not to use reproductive and sexual health services citing issues of privacy, a fear of revealing health worries, low approachability of service providers, non-friendliness of existing services, and traditional taboos among the principal reasons. Besides, studies conducted in several parts of the country revealed that most adolescents have the information and knowledge regarding SRH. However, uptake is very low even in urban settings of the country ranging from 21% to 38% (Binu et al., 2018). Moreover, the rate of SRH services uptake was as low as only 2% in rural parts of the country.

According to a study by Kennedy et al, (2013), fear and shame related to socio-cultural norms and attitudes regarding adolescents' sexual behavior were the most significant reasons why adolescents found it difficult to access SRH services. This was aggravated by the perception among adolescents that they were 'underage' or 'too young' to be sexually active or seek SRH services and fear of disclosing sexual activity to judgmental providers (Kennedy et al., 2013).

According to Alemo et al, (2014), reproductive health services uptake is low in rural adolescent populations compared to urban adolescent populations due to anxiety about being asked sensitive questions and also fear of physical examination particularly the case in rural areas where limited services mean that the only available provider might be an adolescents' relative.

2.4.1.4 Cost of services

Data from Kennedy et al, 2(013) shows that the cost of services, commodities and transport were barriers for many adolescents due to high unemployment and little access to household resources (Kennedy et al., 2013). Some adolescents reported that they would be too embarrassed to ask their parents for money to attend SRH services. Having to pay for SRH services and commodities prevented them from seeking care, although some adolescents reported that if it was important that they would find the money.

2.4.1.5 Opposition and disapproval from parents and communities

Negative attitudes of parents and community leaders contribute to adolescents' fear. Many have described parents' negative attitudes as a barrier, particularly for girls, either because parents directly prevented them from accessing services or because they were afraid of the consequences if their parents found out (Kennedy et al., 2013).

2.4.1.6 Awareness about ARHS

Lack of information, lack of awareness or lack of knowledge lack of basic information and pressure from partners are factors which affect the level of uptake of the RHS (Abajobir & Seme, 2014) . A study among girls in Ugandan primary schools found low knowledge of menstruation and menstrual hygiene. Inadequate SRH knowledge creates anxiety and shame, especially at the beginning of puberty (Kemigisha et al., 2018). While there is little data available on SRH outcomes among VYAs in Uganda, poor reproductive health outcomes become especially evident in late adolescence (UBOS, 2016a)

A study in Nigeria indicated that about a quarter of adolescents experience sexual intercourse but only 10.7% of them had ever tested for HIV/AIDS. Furthermore, of 25.5% who admitted to have experienced sexual intercourse, only about two-thirds used a condom in their last sexual intercourse. The same study showed that about a third of study population did not see anything wrong with pre-marital sex because they perceived it as normal, simply fun or that it does not matter (Helamo et al., 2017).

Data from Thomée et al. (2016) in their study on challenges and strategies for sustaining youth-friendly health services in Sweden recognized that access to the clinic was not equitable for all youths and mentioned a number of intersectional dimensions that might hinder it (Thomée et al., 2016). Youth with disabilities, youth from non- Swedish ethnic backgrounds and young men accessed the clinics less often due to segregation by their counterpart ethnic groups (Thomée et al., 2016).

According to the study conducted in Nigeria, adolescents faced socio-cultural barriers which made it difficult for them to access and utilize RHS (Federal Ministry of Health, 2014) (FMOH, 2009). Majority of the parents in the area of the study did not give their children enough and required information on sexuality because sex discussion with them was taken to be a cultural taboo. Also, sex education has not been formally introduced into many schools in Nigeria (Federal Ministry of Health, 2014). Adolescents did not have adequate information about sexual and reproductive health services and were found to be exposed to a barrage of

reproductive health problems (Federal Ministry of Health, 2014).

2.4.2 Health system factors associated with the uptake of adolescents' sexual and reproductive health services

2.4.2.1 Health care providers' motivation to provide ASRH services

Concerns regarding the high teenage pregnancy rates among adolescents in Cape Town were common motivators for all the nurses and other health care providers to provide adolescent youth friendly reproductive health (AYFRH) services in order to decrease teenage pregnancy rates. Furthermore, they also had concerns regarding the adolescents' future, which motivated them to provide the services to them so that they could finish school (Jonas et al., 2018)

2.4.2.2 Lack of resources

Findings from Jonas et al (2018) in their study show that health workers lack resources and this hinders the provision of adequate SRH services, together with leading to the shortage of staff in the hospitals. Furthermore, health workers felt that the healthcare system does not prioritize the SRH needs of adolescents especially when the hospitals are very busy or when there is an emergency in the hospitals, when the health workers are deployed to the units with high demand, leaving the SRH services not functional for that day (Jonas et al., 2018).

The lack of trust that adolescents have not only for health care providers, but also for any adult in the community, has been reported to be a key factor that prevents them from seeking care. There are also reports of adolescents having a perception that health care providers either are not well equipped to help them or are rude and judgmental, which creates an overall lack of trust in their services (Mmari et al., 2016).

There are also cases of health workers discouraging the adolescents from using ASRH services because of their own norms and values with respect to termination of pregnancy (TOP). For example, some nurses reported their religious and personal beliefs to be against TOP, which makes it difficult for them to provide this service to the adolescents in need. Furthermore, some nurses suggested that TOP services should be totally removed from adolescents' SRH services (Jonas et al., 2018).

In a study on youth-friendly services in Nigeria, 59% of the available facilities with youth friendly services offered integrated services while 37% offered youth only services.

However, despite growth of youth-friendly services, it has been reported that uptake of available health services is recorded to be lowest amongst youths (Seratu et al, 2016).

In many developing countries, providing universal access to sexual and reproductive health care for adolescents is beyond the health systems' capacity. In some cases, even where the health facilities exist, there are not enough trained staff to provide the needed services and supplies of drugs and contraceptives are limited (Woog, et al., 2015) and poor health systems with weak infrastructure for sexual and reproductive health, communications and transport can make access to services in rural areas particularly difficult (Beguy et al., 2013).

2.4.2.3 Health workers' attitude

Health workers behaviours can also significantly hinder adolescents' uptake of SRH services. Services need to be provided in a youth-friendly environment with health workers that are welcoming and supportive towards adolescents seeking care (Jonas, 2017). It is clear that interventions which aim to address the negative attitudes of health workers are likely to improve adolescents' SRH service uptake (Jonas et al., 2017).

A study in Ethiopia on the attitudes of the health care providers on reproductive health care services for the single youth persons concluded that some health care providers were coming up with some form of rules and regulations that discourage premarital sex and ended up discouraging seeking of health services by the youth (Tilahun et al., 2012).

The reproductive health of African youth and their requirement for youth-friendly reproductive health services has also been the focal point of significant policy and intervention activities since the beginning of the 21st-century states (Mchome et al., 2015).

2.5 Measures to improve the uptake of adolescent sexual and reproductive health services

2.5.1 Current literature

According to the study conducted by Hock-Long et al. (2003), there are several approaches that were adopted globally to improve the uptake of ARHS services among the youths. These services include; family planning, working on prevention programmes for STDs and unwanted pregnancies among adolescents, and setting up youth-friendly adolescents' clinics (Hock-Long et al., 2003). However, for developing countries, assessment for mediation to improve on the use of SRH services is demanding more especially refresher training on how to handle the adolescents who have unique needs, and support the services provided therein.

Denno et al. (2015) argued that the use of mass media and communication approaches have created some progress in improving the access and use of ASRH services in developing

countries (Denno et al., 2015). In a submission by Castle et al., (2002), school based sexual education programmes were shown to cause improvement on adolescents' understanding and behaviour towards sexuality and reproductive health, although it has been found that there is need for some studies on assessing the effect of behaviour too (Castle et al., 2002).

2.5.1.1 School-based sexuality education

Strong evidence exists which has shown that quality school-based sexuality education programmes have a positive impact on Adolescents' knowledge and attitudes about sexuality and reproductive health, and many studies have reported on positive behavioural impacts as well. For example, a study by Traore (2002) of twenty-one school-based sex education programmes in developing countries found that nearly all the programmes had a positive influence on the uptake of sexual and reproductive health services(Castle et al., 2002).Renju et al. (2010) in their study on evaluating the scale up of a youth-friendly initiative in northern Tanzania emphasized the need to train more staff in clinical and non-clinical sections per facility to ensure youth-friendly service delivery (Renju et al., 2010).

2.5.1.2 Mass media messaging

Not all Adolescents in undeveloped countries join school and are capable to profit from its protective impact. Hence reaching out to out of school Adolescents with messages proposed to make ensure that positive conduct is necessary (Petroni & Fritz, 2013).

Mass media messaging studies have steadily established the relationship of sex education with improvement of adolescents' understanding and behaviour. Contrary to the above literature, Petroni and Fritz (2013) critically stated that, not all adolescents who joined school benefited from sex education. This was attributed to factors such as religious beliefs and cultural norms (Petroni & Fritz, 2013).

World Health Organization revealed that mass media involvement in adolescents' sex education had an improved effect on understanding and behaviour of adolescents (WHO, 2006). According to the studies conducted in Africa and Latin America on mass media-based interventions, it was found out that positive behavioural results such as use of condoms and available contraceptive services had influence on Adolescents behaviour (NRC, 2005). In like manner, the World Health Organization revealed that media interventions that are traditionally subtle have been proven to have positive effect on knowledge and behaviour of adolescents (WHO, 2006).

2.5.1.3 Youth-friendly services

Youth-Friendly Services are normally designed to make the use of current Reproductive Health Services (RHS) more suitable and attractive to young people. WHO identified five

key aspects of youth-friendly services (YFS) which included being reasonable, reachable, satisfactory, suitable and actual (WHO, 2012).

The National Research Council (2005) reported a small number of YFS programmes that had been registered in developing countries that had been thoroughly appraised. However, , positive outcomes have been recognized, exceptionally where hard work was made together with local communities to draw adolescents to health facilities behaviour (NRC, 2005).

2.5.1.5 Multicomponent programs with community involvement

Research has shown that one separate method alone cannot meet all the ASRH requirements of adolescents (WHO, 2005). Adolescents are persuaded by other individuals, their families, school, community and societal influences and as such multi-component approaches that address these areas are essential to sustain progressive changes in conduct (Neelofur-Khan, 2007). Written literature by many authors have confirmed the importance of supply-side plans such as providing YFS and health providers training and their incorporation with information distribution to create requirement for ARHS (Denno et al., 2015).

2.6 Empirical review of literature: Showing studies done by others in SRH (Research gap)

Studies have continuously shown low up take of ASRH services among adolescents and thus continuously facing the challenges of unsolicited pregnancies, risky abortions, STDs including HIV/AIDs, school dropout, child neglect and street kids. However, the low uptake has been attributed not only to one but variety of different factors of which some are at individual level, community and health set up. In a study that was conducted in Kaduna state in Nigeria on adolescents' access to and uptake of SRH services was low and this was attributed on a number of factors such as personal, social and health system factors that influence adolescents' access to and use of SRH services (Nmadu, 2017).

Studies still indicate that cases of maternal and prenatal mortality among adolescent mothers are still high. This is due to poor access to healthcare services such as antenatal care, prevention and provision of treatment for STIs and provision of safe abortion services (Njoki, 2015).

A significant proportion of Ugandan adolescents have limited access to sexual and reproductive health services and where they exist, they do not address their needs such as having access to family planning services, access to HIV counselling and testing services among others. Many institutions offering these services have not met the criteria of providing youth-friendly services to these young people, a factor that limits the access to these sexual

and reproductive health services for most of them, including teenage mothers (Nakkazi, 2016).

Much as different measures have been put in place to improve uptake of the reproductive health services by the youths in Rubanda District, available evidence (HMIS Report 2018-2019) indicates that majority of the youths in Rubanda District do not effectively utilize these services in many facilities. This is because the youths still lack adequate knowledge and accessibility of these services and this has not differentiated Rubanda district from the rest where unwanted pregnancies, HIV/AIDS, STDs and many more ASRH challenges exist. This study served as a bridge to overcome the challenges faced by adolescents as it was both qualitative and quantitative in nature where both the findings were from both the service providers and the adolescents who actually face the actual ASRH-related problems. Therefore, it is anticipated providing knowledge through strengthening packages and health education talks given to adolescents in both communities and at health facilities as well as increasing access of available services would help in increasing the level of uptake of reproductive services among the adolescents in Rubanda District.

2.7 Summary of literature review

Different studies about uptake of reproductive health services among adolescents in different areas across the world indicates that poor attitude of health workers, lack of access to contraceptive use, health workers behaviors, religious and personal beliefs, access to clinics and health centers, lack of information/ knowledge about sexual reproductive health services, opposition/disapproval from parents and communities and economic status are some of the barriers inhibit the uptake of reproductive health services among adolescents. Because of these barriers, various measures such as health education, youth-friendly services, mass media messaging among others need to be put in place and even encouraged by both the government and non-governmental organizations.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the methodology that was used in this study. It outlines the study design, study setting, study population and sampling procedures used. It also describes the data collection tools and the process of data collection. It further describes the data coding and analysis procedures adopted.

3.1 Study area

The study was carried out in Rubanda District located in Kigezi sub region in south western Uganda. Rubanda District is surrounded by districts of Kabale, Rukiga, Kisoro, Kanungu and Rukungiri. The researcher chose this study area because according to Health Sub District (HSD) in charge of Rubanda East, Kigezi region has a big number of adolescents who do not effectively use the RHS available within the health facilities in the districts of Kigezi where Rubanda District lies. This is supported by District Health Information System version 2 (DHIS2) report which indicated teenage pregnancy at 18% in the whole district compared to 25% of the entire nation. In the same report, it was noted the prevalence from other districts in Kigezi region was between 12%-19% compared to Rubanda which was at 18% (UBOS, 2016b).

3.2 Study design

The study used a cross-sectional design. This kind of study design was preferred because most of the questions did not require deep thinking from the respondents meaning that they were easy to be answered in a very short time for one to finish his study. It was both qualitative and quantitative in nature.

3.3 Study population

The study population comprised of male and female adolescents aged 10-19 years in Rubanda District. Adolescents were the focus of this study because evidence from both developed and developed countries have that shown that during late adolescence, Adolescents were more likely to be having sex and involve in dangerous sexual behaviors' (Morris & Rushwan, 2015). According to the population census of 2014 in Uganda, Rubanda District

had a total of 25 % (52,889) adolescents aged between 10-19 years. Basing on this figure, the researcher used multi-stage sampling to identify parishes from selected sub counties and simple random sampling for respondents to participate in the study. The study was carried from March 2022 to march 2023.

Table 3.1: Adolescent population distribution in sub counties of Rubanda District

Rubanda West Constituency	**Population**
Bufundi	6861
Muko	10112
Ikumba	4992
Ruhija	2739
Rubanda Town Council	5811
Rubanda East Constituency	
Bubaare	9088
Nyamweru	4659
Hamurwa	7245
Hamurwa Town Council	1382
TOTAL	**52889**

Source: Uganda National Bureau of Statistics estimate, 2020

Bubaare Subcounty and Hamurwa Town Council were selected from Rubanda East Constituency and Ikumba Subcounty and Rubanda Town Council from Rubanda West Constituency.

Table 3.2: Sample size allocation per selected sub county

Sub County	**Total population of adolescents (10-19) years**	**Sample size**
Bubaare	9088	180
Hamurwa Town Council	1382	28
Ikumba	4992	99
Rubanda Town Council	5811	115
Total population of selected sub counties	21273	422

Source: Uganda National Bureau of Statistics estimate, 2020

The sex ratio was stratified as shown below;

Table 3.3: Stratified samples for respondents by sex

Sub counties	Sample size	Male adolescents	Female adolescents
Bubaare	180	72	108
Hamurwa town council	28	11	17
Ikumba	99	40	59
Rubanda town council	115	46	69
Total	422	169	253

Source: Uganda National Bureau of Statistics estimate, 2020

The researcher considered using a ratio of 2:3 for male to female adolescents as it was well known that female adolescents are very much affected compared to male adolescents

Sample size for each selected sub county was calculated as (X/p) n, where x was taken to be the population of adolescents aged 10-19 years of the selected sub county, p the total number of adolescents in all selected sub-counties where the study was to be conducted, and n was taken to be the sample size of the entire study.

For example, Bubaare sub-county with a total population of 9,088 adolescents from a total of 21,273 adolescents of the selected sub-counties in Rubanda district, the sample size of adolescents was 9,088/21,273 x 422 = 180.

All other samples from the selected sub counties were calculated using the same method.

3.4 Sample size determination

The sample size was calculated using the formula: $n=Z^2P(1-P)/E^2$ (Kish Leslie, 1995). This formula required the researcher to have the n = the minimum required sample size, proportion (p) of adolescents and youth not using ASRH services in western Uganda, then Z = standard deviation corresponding to 1.96, permitted error (e) set at 0.05.

Thus: $n = z^2p\ (1-p)/e^2$

$$n = \underline{1.96^2 \text{ X } 0.5\ (1-0.5)}/\ 0.05^2$$

$$= 384$$

This gave a sample size of 384 respondents and, to cover the gap for non-response, 10% of respondents was added which increased the sample size to 422 participants.

3.5 Sampling technique

To avoid selection bias and ensure optimal representation, multi-stage sampling was used. Of the seven sub-counties and two town councils in the district, the study considered one sub-county from each constituency and one town council. The researcher assigned codes to all sub-counties and considered both town councils of Hamurwa and Rubanda. At parish level, the researcher employed parish and village health- team (VHT) coordinators to locate villages with adolescents and venues where focus group discussions were to be conducted.

With the help of parish VHT coordinators in selected parishes, purposive sampling was used to select house-holds with adolescents to participate in the study. In a house-hold where there was more than one adolescent, the researcher selected one adolescent using simple random sampling.

For the case of health workers as key informants, these were purposively selected with only Health Centre in-charge, mid wives and counselors attached to these health centers being considered. At this point only one Health Centre III and two Health Centre IVs were considered in the study as it was found that they were among the facilities that were nearer to

the study participants when one considered the study sub counties and town councils. Each key informant was interviewed independently for confidentiality purposes.

3.6 Inclusion and exclusion criteria

3.6.1 Inclusion criteria

All Adolescents aged between 10-19 years of age 11 adolescents who were the residents of Rubanda District as well as minors whose parents/ care takers accepted to consent and counselors, midwives and in charges who consented as key informants in the study were included.

3.6.2 Exclusion criteria

Adolescents with mental problems were excluded.

3.7 Data collection instruments and procedures

The data collection tools included a questionnaire, key informant interview guide with the ASRHs providers designed in line with the study objectives and the focus group discussion (FGD) interview guide.

3.7.1 Use of questionnaires

A semi-structured questionnaire consisting of both open-ended and close-ended questions designed from international standardized tool for the SRH that were in line with the study objectives was administered in order to gather relevant in-depth information.

3.7.2 Focus group discussions

For focus group discussion, participants were selected using convenient sampling technique where a researcher would consider only those who were 18 to 19years. This was done with the help of parish VHT coordinators in selected sub counties. Two focus group discussions were conducted in the study where each group had 10 participants. The VHT parish coordinator from Kitojo in Bubaare Subcounty and the one of Nyaruhanga parish in Rubanda town council were purposively selected by the researcher depending on their accessibility and willingness to participate. Bubaare with the majority of adolescents had majority of participants in Rubanda East and Rubanda Town Council the other part of Rubanda west. Other details are summarized in the tables below:

Table 3. 4: FGD sample size allocation per selected sub county

Sub County	Sample size	Actual number of respondents	No of participants
Bubaare	180	170	7
Hamurwa Town Council	28	28	3
Ikumba	99	89	4
Rubanda Town Council	115	100	6
Total population of selected sub counties	422	387	20

Source: Uganda National Bureau of Statistics estimate, 2020

Table 3.5: Participant distribution for focus group A in Rubanda East at Bubaare Secondary School

Sub County	Sample size	Actual number of respondents	Male	Female	No of participants
Bubaare	180	170	3	4	7
Hamurwa Town Council	28	28	1	2	3
Total	208	198	4	6	10

SOURCE: Uganda National Bureau of Statistics estimate, 2020

Table 3.6: Distribution of the study participant selection for focus group B in Rubanda West Constituency at Nyaruhanga Church of Uganda in Rubanda Town Council

Sub County	Sample size	Actual number of respondents	Male	Female	No of participants
Ikumba	99	89	3	1	4
Rubanda Town Council	115	100	1	5	6
Total no of participants	214	198	4	6	10

Source: Uganda National Bureau of Statistics estimate, 2020

3.7.3 Key informant interviews

Study stake-holders interviews started with the healthcare workers who were responsible for attending to adolescents while visiting the health facilities on their experience from interaction with the adolescents' sexual and reproductive health services visits. The health workers were interviewed at the clinic in private when they were not attending any client. The exercise lasted for a period of forty-five minutes to one hour for each stake holder.

The key informant interview guide was used while interviewing the key informants in the study with the help of open-ended questions. The interview guides were based on the research objectives. Only one Health Centre III (Bubaare) and two Health Centre IVs (Hamurwa and Muko) were considered in the study as the study was conducted in their areas of operation. Each key informant was interviewed independently for confidentiality purposes. Only 14 health care givers were able to fully participate in the study, and these were all the three in-charge officer of selected health facility, 4 counselors and seven mid wives. The health workers were selected using purposive sampling.

Table 3. 7: Showing KII from the selected health facilities providing ASRH services in Rubanda

Health facility	In charges	Mid wives	Counselors	Total no of participants
Bubaare HC III	1	1	1	3
Hamurwa HC IV	1	2	2	5
Muko HC IV	1	3	2	6
TOTAL	3	6	5	14

As a way of collecting the right data, the researcher trained his research assistants to ensure that they all understood the processes involved in the study. The researcher also visited the study area before the actual date of data collection and got authorization from the relevant stakeholders. Data collection lasted for three weeks.

3.8 Quality control and validation of tools

Quality control measures adopted by the researcher included the following: (1) Proper numbering of the questionnaires; (2) Clear identification of the respondents and key informants; (3) Field editing of the questionnaires followed by (4) Data sorting and arrangement. At the end of every working day, all the quantitative data sets were prepared

and analysis plan made ready for data entry into the software. All the field notes containing the qualitative data collected from key informants and FGDs were organized in a box file. This was done to store and prevent data loss.

The data collection tools were adopted from the standard SRH assessment tools to suit the study. The developed tools were pre-tested to ensure the validity of the questions. Extensive literature review was considered to ensure content validity of each question.

3.9 Validity and reliability of data collection instruments

Tools were validated by conducting a pre-test study on 20 adolescents in Kabale to check if the intended results per objective were achievable in order to check for reliability. Then, the same tools were the ones used in data collection as they were also checked by the supervisors as experts by making scores that were in line with the intended study objectives.

3.10 Ethical considerations

Ethical approval was obtained from Mbarara University Research Ethics Committee. Permissions were also sought from Kabale University Department of Community health and the DHO Rubanda District to collect data from the respondents in the selected public health facilities of Rubanda District.

Informed consent was sought from respondents after explaining to them the purpose of the study. They were told that participation was voluntary and that they were free to withdraw from the study, if they changed their mind, without any penalty against them and that there was no monitory incentive for one to participate in the study. The respondents were assured that their information was to be treated with the highest degree of confidentiality and only willing adolescents who understood and agreed to participate in the study were to be recruited as study participants. Mature adolescents aged between, 18-19 were asked to consent before participation as well as the parents for the minors to participate in the study. On the other hand, minors (10-17) were asked to assent before participating in the study. Respect of person, informed consent, confidentiality from anonymity of response and information were observed in the study.

3.11 Data analysis plan

Data was analyzed following the set objectives, with each objective of the study being analyzed independently. Descriptive statistics were used to describe and summarize data while quantitative data on objectives 1, 2 and 3 were analyzed using Statistical Package for

Social Sciences (SPSS) version 24 to generate frequency tables, percentages, cross tabulations and figures.

Inferential analysis was used depending on the collected data per set objective while using adjusted odds ratio to correlate the different variables in the study. At bivariate level, data analysis was made by the chi square (X^2) test for categorical variables. The association between dependent (uptake of ASRHs) and independent variables was measured by means of odds ratio for which 95% confidence interval was calculated. Variables that statistically showed significant association ($p < 0.05$) were analyzed at multivariate level in a stepwise logistic regression model.

Qualitative data on objectives 2, and 3 were analyzed using thematic analysis based on the research objectives. Data on the audio recorder collected during FGDs were later transcribed by the researcher. The transcribed data was then read several times, paying specific attention to themes that emerged and noting down initial themes. Thereafter, the data was coded and later collated into themes which were accurately depicted from the data collected. 3.12 Study variables

The independent variables were demographic data such as age, sex, religion, marital status, occupation, environmental/social-cultural and health facility related factors. Then the dependent variables in the study were the uptake of adolescents sexual and reproductive health services, (HIV screening and testing, STIs screening and management, family planning and pregnancy consultation).

3.13 Dissemination of results

Copies of the study report will be given to the district health office of Rubanda District and the sub county headquarters where the study was conducted. Other copies of the findings will be given to the university archives for future references. The researcher will further publish the findings of the study in a peer reviewed journal and present the findings of the study during various scientific conferences.

CHAPTER FOUR
STUDY RESULTS

4.0 Introduction

The study assessed factors affecting the uptake of adolescents' sexual and reproductive health services in Rubanda District. This chapter consists of different sub sections presenting the results under the different objectives namely:- socio - demographic characteristics defined in terms of age, type of school attended, education, and religion, the proportion of the adolescents accessing reproductive health services in Rubanda District shown in percentages, the socio economic and cultural factors associated with uptake of reproductive health services in Rubanda District, health facility related factors associated with the uptake of adolescents' reproductive health services in Rubanda District and measures to improve the uptake of Adolescents' sexual and reproductive health services in Rubanda District.

4.1. Demographic characteristics of the study participants

A total of 387 study respondents participated in this study. Gender composition of male was 194 (50.1%), while females were 193(49.9%). The majority of respondents were Christians 361(93.3%), while Non-Christians were 26 (6.7%). The composition of male dominance in the study was as a result of non-compliance of female counterpart who did not participate leading to a change in ratio. Other details are shown (Table 4.1). This is to present the study findings with regard to the participant's age cohorts, most were aged <18 years, 194 (50.1%).

Table 4. 1: The socio-demographic characteristics of the respondents (n= 387)

Socio-demographic characteristics		Frequency (percent)
Age	<18 years	194 (50.1)
	18-19years	193 (49.9)
Gender	Male	194 (50.1)
	Female	193 (49.9)
Education	primary	33 (8.5)
	Secondary	324 (83.7)
	Tertiary	30 (7.8)
School one attended	Boarding school	178 (46.0)
	Day school	200 (51.7)
	None	9 (2.3)
Religion	Christian	361 (93.3)
	Muslim	24 (6.2)
	Others, specify	2 (0.5)
Family Income Level	High	14 (3.6)

	Middle	194 (50.1)
	Low	179 (46.3)
Residence	Bubaare Sub County	159 (41.1)
	Hamurwa Town Council	27 (7.0)
	Rubanda Town Council	94 (24.3)
	Ikumba Sub County	107 (27.6)

4.1. Response rate

The study targeted sample was 422 and not all of them responded for the study as shown in the table below.

Table 4.2: Response rate

Sample population	Actual participants Participation in the study	Percentage
422	387	92%

4.2 Proportions of the adolescents accessing and using reproductive health services in Rubanda District

Findings with regard to adolescents' access to sexual and reproductive health services from the health facilities in the study showed that overall, only 136(35.1%) accessed ASRH services in Rubanda district. Most offered ASRH was HIV testing and counseling, 66(17.1%). Most ASRH services were offered at Hamurwa HC IV, 93(24.0%) and Muko HCIV 45(22.4%).

Table 4. 3: Proportion of adolescents accessing sexual reproductive health services. (n= 387)

Sexual reproductive health services	**Definition**	**Health facilities**			**Overall**
		n (%)	n (%)	n (%)	
		Bubaare	Hamurwa	Muko	
HIV counseling and testing	No	146 (91.8)	19 (70.0)	156 (77.6)	322(83.2)
	Yes	13 (8.2)	8 (30.0)	45 (22.4)	**66(17.1)**
STI consultation	No	145 (91.2)	25 (93.0)	189 (94.0)	359(92.8)
	Yes	14 (8.8)	2 (7.0)	12 (6.0)	28(7.2)
Family planning	No	153 (96.2)	25 (93.0)	185 (92.0)	363(93.8)
	Yes	6 (3.8)	2 (7.0)	16 (8.0)	24(6.2)
Pregnancy consultation	No	151 (95.0)	27 (100.0)	191 (95.0)	369(95.3)
	Yes	8 (5.0)	-	10 (5.0)	18(4.7)
Others specify: fever, Cough, Common cold	No	156 (98.1)	27 (100.0)	196 (97.5)	379(97.9)
	Yes	3 (1.9)	-	5 (2.5)	8(2.1)
Overall	No	37(86.2)	294(76.0)	156(77.6)	251(64.9)

	Yes	**22(13.8)**	**93(24.0)**	**45(22.4)**	**136(35.1)**	

4.3 Factors associated with uptake of reproductive health services among Adolescents in Rubanda District

4.3.1 Level of association between socio-demographic factors uptake of reproductive health services among adolescents in Rubanda District

Table 4.4: Level of association between socio-demographic factors and uptake of ASRHs

		Overall	**Access to ASRH services**		**COR (95%CI)**	**P**	**AOR (95%CI)**	**P**
			No (n=251)	Yes (n =136)				
Age	<18 years	194 (50.1)	136 (54.2)	58 (42.6)	1		1	
	18-19years	193 (49.9)	115(45.8)	78(57.4)	1.6(1.0-2.4)	0.031	2.1(1.2-3.5)	**<0.001***
Gender	Male	194 (50.1)	116 (46.2)	78 (57.4)	1		1	
	Female	193 (49.9)	135 (53.8)	58 (42.6)	0.6(0.4-1.0)	0.037	0.5(0.3-0.9)	**0.020***
Education	primary	33 (8.5)	13 (5.2)	20 (14.7)	1		1	
	Secondary	324 (83.7)	219 (87.3)	105 (77.2)	0.3(0.1-0.7)	0.002	0.4(0.2-1.2)	0.098
	Tertiary	30 (7.8)	19 (7.6)	11 (8.1)	0.4(0.1-1.0)	0.060	0.2(0.1-1.7)	0.059
School attended	Boarding school	178 (46.0)	127 (50.6)	51 (37.5)	1		1	
	Day school	200 (51.7)	122 (48.6)	78 (57.4)	1.6(1.0-2.5)	0.035	1.7(1.0-2.8)	0.055
	None	9 (2.3)	2 (0.8)	7 (5.1)	8.7(1.8-43.4)	0.008	2.7(0.4-17.7)	0.295
Religion	Christian	361 (93.3)	238 (94.8)	123 (90.4)	1		-	
	Muslim	24 (6.2)	12 (4.8)	12 (8.8)	1.9(0.8-4.3)	0.119	-	
	Others, specify	2 (0.5)	1 (0.4)	1 (0.7)	1.9(0.1-31.2)	0.0642	-	
Family Income Level	High	14 (3.6)	12 (4.8)	2 (1.5)	1		-	
	Middle	194 (50.1)	136 (54.2)	58 (42.6)	2.6(0.6-11.8)	0.228	-	
	Low	179 (46.3)	103 (41.0)	76 (55.9)	4.4(1.0-20.4)	0.056	-	
Residence	Bubaare Sub	159 (41.1)	126 (50.2)	33 (24.3)	1			

	County							
	Hamurwa Town Council	27 (7.0)	19 (7.6)	8 (5.9)	1.6(0.6-4.0)	0.307	2.1(0.8-5.8)	0.134
	Rubanda Town Council	94 (24.3)	52 (20.7)	42 (30.9)	3.1(1.8-5.4)	<0.001	3.6(1.9-6.7)	<0.001
	Ikumba Sub County	107 (27.6)	54 (21.5)	53 (39.0)	3.7(2.2-6.4)	<0.001	3.6(1.9-6.9)	<0.001

After entering independent socio-demographic variables with p <0.05 into the multiple logistic regression model, results revealed that older age (18-19 years; AOR= 2.1; 95%CI: 1.2-3.5, p <0.001) and residence of other town council than Bubaare (Hamurwa; AOR = 2.1, 95%CI: 0.8-5.8, p = 0.134; Rubanda; AOR = 3.6; 95%CI: 1.9-6.7, p <0.001; Ikumba; AOR = 3.6; 95%CI: 1.9-6.9, p <0.001) BMI were associated with higher access to ASRH services while females were less likely (AOR= 0.5, 95%CI: 0.3-0.9, p = 0.020).

4.3.1 Cultural and health facility factors associated with uptake of reproductive health services among Adolescents in Rubanda District

Table 4.5: Levels of association between cultural and health facility factors and uptake of reproductive health services among adolescents in Rubanda District

Factors		Overall (n = 387)	Access to ASRH services		OR (95%CI)	P	AOR (95%CI)	P
Some religion restricts/affects the use of ASRH	No	156(40.3)	98 (39.0)	58(42.6)	1	-		
	yes	231(59.7)	153 (61.0)	78(57.4)	0.9(0.6-1.3)	0.490	-	
There are parts of culture that prohibits uptake of ARHS	No	198(51.2)	128 (51.0)	70(51.5)	1		-	
	yes	189(48.8)	123 (49.0)	66(48.5)	1.0(0.6-1.5)	0.929	-	
Some religions do not encourage the use of family planning metho	No	161(41.6)	103 (41.0)	58(42.6)	1		-	
	yes	226(58.4)	148 (59.0)	78(57.4)	0.9(0.6-1.4)	0.759	-	
Parents/caretaker has to chase me away from home if i become pre	No	165(42.6)	97 (38.6)	68(50.0)	1		-	
	yes	222(57.4)	154 (61.4)	68(50.0)	0.6(0.4-1.0)	0.032	0.7(0.4-1.1)	0.131
Peer influence can affect SRH	No	154(39.8)	98 (39.0)	56(41.2)	1		-	
	yes	233(60.2)	153 (61.0)	80(58.8)	0.9(0.6-1.4)	0.682	-	

My parents believe that circumcision can prevent HIV/ AIDS	No	201(51.9)	126 (50.2)	75(55.1)	1		-	
	yes	186(48.1)	125 (49.8)	61(44.9)	0.8(0.5-1.2)	0.353	-	
There is restriction to sexual rights until marriage	No	104(26.9)	66 (26.3)	38(27.9)	1		1	
	yes	283 (73.1)	185 (73.7)	185 (73.7)	0.9(0.6-1.5)	0.727	1.0(0.6-1.7)	0.973
Adolescents/Youth Friendly Reproductive health services	no	81(33.1)	81 (32.3)	47 (34.6)	1		-	
	yes	259(66.9)	170 (67.7)	89 (65.4)	0.9(0.6-1.4)	0.648	-	
Am comfortable with the infrastructure design of my nearest health facility	no	168(43.4)	125 (49.8)	43 (31.6)	1		1	
	yes	219(56.6)	126 (50.2)	93 (68.4)	2.1(1.4-3.3)	0.001	**2.0(1.2-3.4)**	**0.007***
Supplies are always available at the health facility	no	126(32.6)	95 (37.8)	31 (22.8)	1		1	
	yes	260(67.2)	156 (62.2)	104 (76.5)	2.0(1.3-3.2)	0.003	1.6(1.0-2.9)	0.113
Health care worker in the facility can handle all issues related to ASRH	no	140(36.2)	88 (35.1)	52 (38.2)	1		1	
	yes	247(63.8)	163 (64.9)	84 (61.8)	0.9(0.6-1.3)	0.535	0.6(0.3-1.0)	0.089
Health workers are always available at the health facility)	no	134(34.6)	106 (42.2)	28 (20.6)	1		1	
	yes	253(65.4)	145 (57.8)	108 (79.4)	2.8(1.7-4.6)	<0.001	1.2(0.7-2.0)	0.466
It takes long waiting time to get Adolescents sexual and reproduce	no	190(49.1)	128 (51.0)	62 (45.6)	1		-	
	yes	197(50.9)	123 (49.0)	74 (54.4)	1.2(0.8-1.9)	0.310	-	

After entering independent cultural and health facility variables with $p < 0.05$ into the multiple logistic regression model, adolescents' results revealed that adolescents that were comfortable with the infrastructure design of their nearest health facility reported a higher access to ASRH services while females were less likely (AOR= 2.0, 95%CI: 1.2-3.4, p = 0.007).

Table 4.6. Qualitative data collected from the key informants on provision of adolescents and reproductive health services to the youths (n=14)

Themes	Sub-themes
1. Socio-demographic differences in accessing adolescents sexual and reproductive health services	1.Age difference between service provider and Adolescents
2. Discomfort of access to ASRHs	Stigma and discrimination
	Some Adolescents are stubborn in that they undermine services
	Long distances to and from health facilities
	Lack of space for privacy
	Congestion on the reception and general outpatient department
	No special ART clinic day for Adolescents
	No Youth Friendly corners
	Poor attitude by health workers

Source: Primary data 2022

4.6.2 Demographic data for FGD participants

Two focus group discussions were conducted with one in each parliamentary constituency. Each group had 10 participants and they were selected purposively basing on their ages. Only those between 18 to 19 years as they had more knowledge on the topic compared to their counterparts aged of <18 years. The majority were females and a big number were from secondary schools. In responses to an interview question about acquiring sexual and reproductive health services one of the adolescents revealed that *"There is no privacy in the health facilities for the youth".* (FGD A, Respondent 11).

Another participant stated that *"…some villages are very far away from health facility which discourages some adolescents to use the services".* (FGD.A, Respondent 5).

The respondents also affirmed that: *"Adolescents' sexual and reproductive services available in the health facilities provide HIV testing, Family planning services and condom provision, safe male circumcision to boys, and human papilloma virus vaccination to girls".* (FGD.A, Respondent 2, 5 (FGD.B, Respondent 9).

With regard to the importance of sexual and reproductive health services a respondent stated that *"…the services help to manage sexually transmitted diseases, and further help the adolescents to be protected from sexual transmitted diseases like HIV, and… reproductive health services give adolescents right time to have a partner in the right time".* (FGD.B, Respondent 12, 4).

With regard to strategies for improving uptake of sexual and reproductive health services for male and female adolescents, the majority of the respondents agreed that *"Adolescents' corners should be put in all health facilities",* while few urged healthcare workers *to "be more friendly to adolescents"* (FGD.A, Respondent 10).

4.4 Measures to improve the uptake of adolescents' sexual and reproductive health services in Rubanda District

Table 4.7: Measures to improve the uptake of adolescents' sexual and reproductive health services

Measures		Overall	Access to ASRH services		COR (95%CI)	P	AOR (95%CI)	P
			No (n=251)	Yes (n =136)				
Through capacity building by continuous medical education.	No	97 (25.1)	62 (24.7)	35 (25.7)	1		-	
	Yes	290 (74.9)	189 (75.3)	101 (74.3)	0.9(0.6-1.5)	0.823	-	
The youth seeking SRHS be served first at the facility	No	158 (40.8)	93 (37.1)	65 (47.8)	1		1	
	Yes	229 (59.2)	158 (62.9)	71 (52.2)	0.7(04-1.0)	0.041	0.8(0.5-1.2)	0.299
The government to recruit more Health Workers to facilitate the	No	93 (24.0)	51 (20.3)	42 (30.9)	1		1	
	Yes	294 (76.0)	200 (79.7)	94 (69.1)	0.6(0.4-0.9)	0.021	0.8(0.5-1.4)	0.439
Health workers to have separate units and time for the consultation	No	124 (32.0)	64 (25.5)	60 (44.1)	1		1	
	Yes	263 (68.0)	187 (74.5)	76 (55.9)	0.4(0.3-1.0)	<0.001	0.5(0.3-0.9)	0.011*
Facilities be supported to offer all services needed by the	No	101 (26.1)	72 (28.7)	29 (21.3)	1		-	
	Yes	286 (73.9)	179 (71.3)	107 (78.7)	1.5(0.9-2.4)	0.117	-	

adolescents								
Youth friendly corners be established in all facilities to offer	No	156 (40.3)	89 (35.5)	67 (49.3)	1		1	
	Yes	231 (59.7)	162 (64.5)	69 (50.7)	0.6(0.4-0.9)	0.008	0.9(0.5-1.5)	0.606
Other ways	No	160 (65.0)	103 (62.0)	57 (71.3)	1		1	
	Yes	86 (35.0)	63 (38.0)	23 (28.7)	0.7(0.4-1.2	0.158	0.7(0.4-1.2)	0.158

After entering independent measures to improve the uptake of Adolescents' sexual and reproductive health services among Adolescents in Rubanda District with p <0.05 into the multiple logistic regression model, Adolescents results revealed that Adolescents that suggested that health workers should have separate units and time for the consultation were less likely to access ASRH services (AOR= 0.5, 95%CI: 0.3-0.9, p = 0.011).

Table 4.8: Themes and subthemes from qualitative data

Themes	**Sub-themes**
Priotizing adolescents needs	Develop functional friendly adolescents' corners
Attitude change towards the ASRH services for Adolescents.	Health workers should have a positive attitude towards the Adolescents.
	Stigma among Adolescents

Source: Primary data 2022

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter discusses the findings presented in chapter four of this report.

5.1 Discussion

The study was conducted among the adolescents to assess the factors affecting the uptake of adolescents' sexual and reproductive health services in Rubanda district in Southwestern Uganda

5.1.1. Demographic profile of study participants

In the study a total of 387 adolescents participated with gender composition of male at 194(50.1%), while females were 193(49.9 %,). This was as a result of non-compliance of some female adolescents that changed the targeted sex ratio. Majority of the respondents' religion were Christians 361(93.3 %,), while Non-Christians were 26 (6.7%). A bigger number of Christians who participated in the study implies that Rubanda district has many Christians compared to other religions. There is a likelihood that this religion can influence the uptake of ASRHS in the area most especially among Catholics who oppose the use of such services like family planning. The predominant age cohort in the study was 18-19 about 183 (49.9%). Furthermore, the majority of the respondents were from Bubaare Sub County 159 (41.1 %,). This implies that the population of adolescents in Bubaare Subcounty is high compared to other Sub counties which is line with the population census of 2014.

5.1.2. The study findings with regard to the proportion of the adolescents accessing reproductive health services

The findings showed that there was low uptake of 136(35.1%) which concurs with the study by Chaltu et al, (2022) in Ethiopia and Nmadu, (2017) in Kaduna state in Nigeria who stated that adolescents' access to and uptake of sexual and reproductive health services was low. This implies that there is still a need to put in a lot effort and make sure that the rate of up take of ASRHS increases in Rubanda district as well as the whole country. This can be done through provision of services which are not yet available, increasing awareness of these services, creating adolescent friendly corners among others.

Also, health facility status appeared to influence access to HIV screening services with (p = 0.015) in the study as well as access to pregnancy consultation services with (p = 0.017) and others response option responses with (p = 0.000) The findings agree with report in UNAIDS 2016 showed that as few as 10% male youth and 15% female youth have knowledge of their HIV status that put them at risk (Mazur et al., 2018; WHO, 2016).

Also, HIV counseling and testing services were the most utilized service and this was linked to introduction of HIV self-testing services in health centers.

5.1.3. The socio economic and cultural factors associated with uptake of reproductive health services

The study showed that religious restriction affects the use of adolescents' sexual and reproductive health services discouraging the use of family planning methods and enhancing fear that parents would chase the adolescents away from homes if they by chance become pregnant. Such results call for the intervention by the ministry of health as well as the government to make sure that the religious leaders are sensitized about the importance of SRHS in the lives of adolescents as a way of discouraging the religious leaders from preaching against use of family planning among adolescents. The age factor, gender, school categories and area of residence also appeared to be major influencing factors of from respondents' personal characteristics and socio - economic and cultural variables: (p- Value = 0.000, 0.003, 0.000, 0.032 and 0.013) respectively. These findings were in line with the qualitative study on adolescents by Kennedy et al. (2013), who found high adolescents fertility rate, lack of SRH knowledge and limited access to contraceptive, gender inequality and cultural influences.

5.1.4. The health facility-related factors associated with the uptake of adolescents' reproductive health services

The study results showed the need for provision of youth-friendly reproductive health services in the community health facilities with some level of comfort in accessing services along with better equipped health facilities and with efficient and availability of healthcare workers to handle issues related to sexual and reproductive health issues in short time visit. As a result of this, the policy makers at the national level should make sure that such facilities are put in place for the adolescents as this can give a chance to all adolescents to fully utilize the available SRHS and be able prevent themselves from dangers associated with low uptake of these services. The study further revealed significant relationship between high level health facility linked factors and high and moderate level of sociocultural linked factors with

(p =0.024) and moderate level of measures that could be taken to improve reproductive health services uptake with (p=0.014) respectively.

5.1.5. The measures in place to improve the uptake of adolescents' sexual and reproductive health services

The respondents stressed the need for capacity building by continuous medical education and trainings and workshops and increased staff strength. Ensuring that adolescents seeking sexual and reproductive health services are served in a separate unit during time for consultation also came out strongly. Respondents also stressed that ensuring adequate support that enables health facilities to offer services needed by the adolescents establishing adolescent-friendly corners would help improve the uptake of ASRH services. The findings are in line with Renju et al. (2010) and Lilian et al., (2020). who stated that youth-friendly services would help improve young peoples' health and promote access to quality reproductive health services in Sub Saharan Africa (Renju et al., 2010, Nakkazi, 2016). Furthermore, the study found that age factor (p = 0.000) male gender (p = 0.000), and area of residence (p = 0.001) respectively should be looked into as we strive to address measures that could be taken to improve services uptake.

5.2. Summary of the study

The proportion of respondents that access health services and measures to improve services uptake were statistically significant with access to HIV screening services with (p = 0.013) and access to family planning services with (p = 0.000) in the study.

Furthermore, the health facility-linked factors appeared to be equally statistically significant with access to HIV screening services with (p =0.015) in the study. Statistically significant in the study was also access to pregnancy consultation services with (p = 0.017) and other response option responses with (p =0.000).

Some socio-economic and cultural variables in the study were religious restriction and discouraging the use family planning methods and fear that parents would chase the adolescents away from home if they by chance became pregnant. The age factor, gender, school categories and area of residence appeared to be major influencing factors of from respondents' personal characteristics and socio - economic and cultural variables.

With regard to the measures to be put in place to help improve the uptake of adolescents' sexual and reproductive health services in Rubanda District in the study, the need for capacity building by continuous medical education and trainings and workshops and increased staff strength came out strongly. Also, there were suggestions that youths seeking sexual and reproductive health services should be served first in a separate unit during time for consultation and that, to ensure adequate support that enables health facilities to offer services needed by the adolescents and there was need to establish youth-friendly corners.

The qualitative findings agreed with most of the quantitative findings which revealed challenges encountered by the adolescents while accessing sexual and reproductive health services especially the absence of privacy in the health facilities for the youth and difficulty in accessing health facilities, which discourage some adolescents from using the services. Findings revealed that some youths still have fear/stigma while accessing sexual and reproductive health services, while some of the adolescents said they were not well informed about the services with others stating that health workers do not give youth time that is they need.

5.3 Study limitations

The fact that the research topic dealt with a very sensitive matter, the researcher encountered some challenges which included response bias such as providing false replies. But the limitation was largely overcome by the reassuring the youths on confidentiality and the importance of giving honest answers in order to obtain truthful information that could be used to increase and deliver better reproductive health services (RHS) in Rubanda District. Furthermore, information was sought from relevant stakeholders to boost the information generated from the youth. Also focus group discussions provided a friendlier atmosphere for the youth who spoke freely when they saw others opening up.

The researcher also faced challenges while conducting the study as it was a post COVID-19 period which meant that some of the adolescents who participated in FDGs had stigmatizing memories COVID-19 but the researcher provided them with face masks and social distancing was observed during the exercise.

Also, female participation was no so good compared to their male counterparts yet they are the ones facing more ASRH challenges compared to the male counterparts. However, the researcher's assurances on confidentiality helped to maintain some in the study process.

5.4. Conclusions

The uptake of the sexual reproductive health services in the study area was low for HIV screening, STI consultation, family planning consultation and pregnancy consultation.

With regard to the factors influencing the uptake of ASRH services, the socioeconomic and cultural variables linked with services uptake were the age factor, gender, and area of residence which appeared to be major influencing factors. On the other hand, the health system linked factors that influenced uptake of ASRH services significantly were lack of youth-friendly reproductive health services in the community health facilities that have some level of comfort along with better equipped health facilities and availability of efficient healthcare workers to handle issues related to sexual and reproductive health issues.

Lastly, the suggested way forward included capacity building by continuous medical education and trainings and workshops and increased staff strength. Prompt attention to the youths seeking sexual and reproductive health services and providing services promptly but in a separate unit during time for consultation were also suggested. To ensure adequate support that enables health facilities offer services needed by the adolescents and establishment of youth friendly corners was also one of the measures suggested by the respondents as well creating an environment that would eliminate all manner of fear/stigma experienced by youth while accessing reproductive health services.

5.5. Recommendations

5.5.1 To health facilities

The study recommends that health facilities be stocked with necessary equipment's and build the capacity of workers to serve the needs of the adolescents. I also recommend that health facility stake-holders should create youth-friendly corners in health facilities, equip health workers with the necessary skills, and try to reduce the waiting time, and also carrying out community outreaches among others.

5.5.2 To Rubanda District

The religious institutions, cultural leaders and care givers for the adolescents should be enlightened about the need for ASRHS.

5.5.3 To the Ministry of Health

The MOH in collaboration with other sectors needs to ensure that the rate of ASRHS is increased across all the health service centers in the country by formulating policies that support ASRH services in all health facilities.

5.6 Area for further studies

The researcher suggests that more research should be conducted on the influence of care takers on the uptake of adolescents' sexual and reproductive health services in Rubanda District

REFERENCES

Abajobir, A. A., & Seme, A. (2014). Reproductive health knowledge and services utilization among rural Adolescents in east Gojjam zone, Ethiopia: a community-based cross-sectional study. *BMC Health Services Research*, 14(1), 1–11.

Akinyi, O. P. (2009). Determinants of utilization of youth friendly reproductive health services among school and college youth in Thika West District. Kiambu County, Kenya.

Amanuel, A. A., & Seme, A. S. (2013). Reproductive Health Knowledge and Services Utilization among Rural Adolescents in Machakal district, Northwest Ethiopia. *Asian Journal of Pharmacy, Nursing and Medical Sciences*, 1(1).

Amsale, C., & Yemane, B. (2012). Knowledge of sexually transmitted infections and barriers to seeking health services among high school Adolescents in Addis Ababa. *Ethiopia. Journal of AIDS and Clinical Research*, 3(5).

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: does it matter? *Journal of Health and Social Behavior*, 1–10.

Andersen, R., & Newman, J. F. (2005). Societal and individual determinants of medical care utilization in the United States. The Milbank Quarterly, 83(4), Online-only.

Ansha, M. G., Bosho, C. J., & Jaleta, F. T. (2017). Reproductive Health Services Utilization and Associated Factors Among Adolescents in Anchar District, East Ethiopia. *Journal of Family and Reproductive Health*, *11*(2), 110–118.

Atuyambe, L., Mirembe, F., Tumwesigye, N. M., Annika, J., Kirumira, E. K., & Faxelid, E. (2008). Adolescents and adult first time mothers' health seeking practices during pregnancy and early motherhood in Wakiso district, central Uganda. *Reproductive Health*, 5(1), 1–11.

Ayehu, A., Kassaw, T., & Hailu, G. (2016). Level of young people sexual and reproductive health service utilization and its associated factors among young people in Awabel District, Northwest Ethiopia. *Plos One*, 11(3), e0151613.

Beguy, D., Ndugwa, R., & Kabiru, C. W. (2013). Entry into motherhood among Adolescents girls in two informal settlements in Nairobi, Kenya. *Journal of Biosocial Science*, 45(6), 721–742.

Binu, W., Marama, T., Gerbaba, M., & Sinaga, M. (2018). Sexual and reproductive health services utilization and associated factors among secondary school students in Nekemte town, Ethiopia. *Reproductive Health*, 15(1), 1–10.

Blakemore, S., Burnett, S., & Dahl, R. E. (2010). The role of puberty in the developing Adolescents brain. *Human Brain Mapping*, 31(6), 926–933.

Cappa, C., Wardlaw, T., Langevin-Falcon, C., & Diers, J. (2012). Progress for children: a report card on Adolescents. *The Lancet*, 379(9834), 2323–2325.

Castle, S., Traore, S., & Cisse, L. (2002). (Re) defining reproductive health with and for the community: An example of participatory research from Mali. *African Journal of Reproductive Health*, 20–31.

Chandra-Mouli, V., Lane, C., & Woog, S. (2015). What does not work in Adolescents sexual and reproductive health: a review of evidence on interventions commonly accepted as best practices. *Global Health: Science and Practice*, 3(3), 333–340.

Chikovore, J. (2004). Gender power dynamics in sexual and reproductive health. A qualitative study in Chiredzi district, Zimbabwe.

Claeys, V. (2010). Brave and angry–The creation and development of the International Planned Parenthood Federation (IPPF). *The European Journal of Contraception & Reproductive Health Care*, 15(sup2), S67–S76.

Council, N. R., & Population, C. on. (2005). *Growing up global: The changing transitions to adulthood in developing countries*. National Academies Press.

CSA, I. (2011). Ethiopia demographic and health survey 2011 preliminary report. Central Statistical Agency, Addis Ababa, Ethiopia.

Denno, D. M., Hoopes, A. J., & Chandra-Mouli, V. (2015). Effective strategies to provide Adolescents sexual and reproductive health services and to increase demand and community support. *Journal of Adolescents Health*, 56(1), S22–S41.

District Health information System (DHIS2,2020) Report, Rubanda District.

FederalMinistryofHealth, F. (2014). Assessment report of the national response to young people's sexual and reproductive health in Nigeria.

Gavin, L. E., Catalano, R. F., David-Ferdon, C., Gloppen, K. M., & Markham, C. M. (2010). A review of positive youth development programs that promote Adolescents sexual and

reproductive health. *Journal of Adolescents Health*, 46(3), S75–S91.

Godia, P. M., Olenja, J. M., Lavussa, J. A., Quinney, D., Hofman, J. J., & Van Den Broek, N. (2013). Sexual reproductive health service provision to young people in Kenya; health service providers' experiences. *BMC Health Services Research*, 13(1), 1–13.

Gubhaju, B. B. (2002). Adolescents reproductive health in Asia. *Asia Pacific Population Journal*, 17(4), 97–119.

Health Management Information System (HMIS,2018-2019) Report- Rubanda District.

Helamo, D., Kusheta, S., Bancha, B., Habtu, Y., & Yohannes, S. (2017). Utilization and factors affecting Adolescents and youth friendly reproductive health services among secondary school students in Hadiya zone, Southern Nations, Nationalities and Peoples Region, Ethiopia. *Int J Pub Health Safe*, 2(141), 2.

Hock-Long, L., Herceg-Baron, R., Cassidy, A. M., & Whittaker, P. G. (2003). Access to Adolescents reproductive health services: Financial and structural barriers to care. *Perspectives on Sexual and Reproductive Health*, 35(3), 144–147.

Huang, X., Dai, S., & Xu, H. (2020). Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behaviour and health belief model. *Tourism Management Perspectives*, *33*, 100589. https://doi.org/10.1016/j.tmp.2019.100589

Ivanova, O., Cordova-Pozo, K., Segura, Z. E., Vega, B., Chandra-Mouli, V., Hindin, M. J., Temmerman, M., Decat, P., De Meyer, S., & Michielsen, K. (2016). Lessons learnt from the CERCA Project, a multicomponent intervention to promote Adolescents sexual and reproductive health in three Latin America countries: a qualitative post-hoc evaluation. *Evaluation and Program Planning*, 58, 98–105.

Jana, M., Mafa, I., Limwame, K., & Shabalala, A. (2012). Challenges to youths accessing sexual and reproductive health information and services in Southern Africa: a review of qualitative research in seven countries. 5th Africa Conference on Sexual Health and Rights, Windhoek, Namibia, September, 19–22.

Janz N.K. and Becker M.H., (1984)."The Heallth Belief Model". *Health Education and behaviour*.2(4):428-335.

Jonas, K., Crutzen, R., Krumeich, A., Roman, N., van den Borne, B., & Reddy, P. (2018). Healthcare workers' beliefs, motivations and behaviours affecting adequate provision of

sexual and reproductive healthcare services to Adolescents in Cape Town, South Africa: a qualitative study. *BMC Health Services Research,* 18(1), 1–13.

Jonas, K., Crutzen, R., van den Borne, B., & Reddy, P. (2017). Healthcare workers' behaviors and personal determinants associated with providing adequate sexual and reproductive healthcare services in sub-Saharan Africa: a systematic review. *BMC Pregnancy and Childbirth,* 17(1), 1–19.

Kamal, S. M. M., Hassan, C. H., & Islam, M. N. (2015). Factors associated with the timing of antenatal care seeking in Bangladesh. *Asia Pacific Journal of Public Health*, 27(2), NP1467–NP1480.

Kamau, A. W. (2006). Factors influencing access and utilisation of preventive reproductive health services by Adolescents in Kenya: a case study of Murang'a District.

Kemigisha, E., Bruce, K., Nyakato, V. N., Ruzaaza, G. N., Ninsiima, A. B., Mlahagwa, W., Leye, E., Coene, G., & Michielsen, K. (2018). Sexual health of very young Adolescents in South Western Uganda: a cross-sectional assessment of sexual knowledge and behavior. *Reproductive Health,* 15(1), 1–8.

Kennedy, E. C., Bulu, S., Harris, J., Humphreys, D., Malverus, J., & Gray, N. J. (2013). "Be kind to young people so they feel at home": a qualitative study of Adolescents' and service providers' perceptions of youth-friendly sexual and reproductive health services in Vanuatu. *BMC Health Services Research,* 13(1), 1–12.

Khan, S., & Mishra, V. K. (2008). Youth reproductive and sexual health (Issue 19). *Macro International.*

Mazur, A., Brindis, C. D., & Decker, M. J. (2018). Assessing youth-friendly sexual and reproductive health services: a systematic review. *BMC Health Services Research,* 18(1), 1–12.

Mbeba, R. M., Mkuye, M. S., Magembe, G. E., Yotham, W. L., obeidy Mellah, A., & Mkuwa, S. B. (2012). Barriers to sexual reproductive health services and rights among young people in Mtwara district, Tanzania: a qualitative study. *The Pan African Medical Journal,* 13(Suppl 1).

Mchome, Z., Richards, E., Nnko, S., Dusabe, J., Mapella, E., & Obasi, A. (2015). A 'mystery client'evaluation of Adolescents sexual and reproductive health services in health facilities from two regions in Tanzania. *PLoS One, 1*0(3), e0120822.

Ministry of Health of Uganda. (2011). The National Adolescents health-strategy.

Mmari, K., Kalamar, A. M., Brahmbhatt, H., & Venables, E. (2016). The influence of the family on Adolescents sexual experience: A comparison between Baltimore and Johannesburg. *PloS One*, 11(11), 0166032.

Morris, J. L., & Rushwan, H. (2015). Adolescents sexual and reproductive health: The global challenges. *International Journal of Gynecology and Obstetrics*, 131, S40–S42. https://doi.org/10.1016/j.ijgo.2015.02.006

Mulugeta, B., Girma, M., Kejela, G., Meskel, F. G., Andarge, E., & Zerihun, E. (2019). Assessment of youth-friendly service quality and associated factors at public health facilities in southern Ethiopia: a facility-based cross-sectional study. *BioMed Research International*, 2019.

Munthali, A. C., Mvula, P. M., & Maluwa-Banda, D. (2013). Knowledge, attitudes and practices about HIV testing and counselling among Adolescents girls in some selected secondary schools in Malawi. *African Journal of Reproductive Health*, 17(4), 60–68.

Mushwana, L., Monareng, L., Richter, S., & Muller, H. (2015). Factors influencing the Adolescents pregnancy rate in the greater Giyani Municipality, Limpopo Province–South Africa. *International Journal of Africa Nursing Sciences*, 2, 10–18.

Nakkazi. E, 2016, Youth-friendly,corners boost uptake of sexual and reproductive health services.

Nations, U. (1994). Report of the International Conference on Population and Development (Cairo, 5-13 September 1994). UN.

Neelofur-Khan, D. (2007). Adolescents Pregnancy-Unmet Needs and Undone Deeds. III. Series. Geneva. WHO Library Cataloguing-in-Publication Data, 7–17.

Negash, W., Dessalegn, M., Yitayew, B., Demsie, M., Wagnew, M., & Nyagero, J. (2016). Reproductive health service utilization and associated factors: the case of north Shewa zone youth, Amhara region, Ethiopia. *The Pan African Medical Journal*, 25(Suppl 2).

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

Njoki, M. (2015). Access to Sexual and Reproductive Health Care Services By Adolescents Girls Aged 15-19 Years Among Pastoral Communities In Narok County. Kenya.

NMADU, A. G. (2017). Access and Utilization of Reproductive Health Services Among. 1–107. https://etd.uwc.ac.za/bitstream/handle/11394/6037/Nmadu comh.pdf?sequence=1&isAllowed=y

Omobuwa, O., Asekun-Olarinmoye, E. O., & Olajide, F. O. (2012). Knowledge and perception of reproductive health services among in-school Adolescents in Ile-Ife, Osun State, Nigeria. *Journal of Medicine and Medical Sciences*, 3(7), 481–488.

Orben, A., Tomova, L., & Blakemore, S. (2020). The effects of social deprivation on Adolescents development and mental health. *The Lancet Child & Adolescents Health*, *4*(8), 634–640.

Petroni, S., & Fritz, K. (2013). Improving the health of women and Adolescents: an unfinished agenda. New York, NY: United Nations Department of Economic and Social Affairs.

Plourde, K. F., Fischer, S., Cunningham, J., Brady, K., & McCarraher, D. R. (2016). Improving the paradigm of approaches to Adolescents sexual and reproductive health. *Reproductive Health*, 13(1), 1–4.

Rankin, K., Heard, A., & Diaz, N. (2016). Adolescents sexual and Reproductive Health: Scoping the Impact of Programming in Low-and Middle-Income Countries. 3ie Scoping Pap., 5, 4–86.

Renju, J., Andrew, B., Nyalali, K., Kishamawe, C., Kato, C., Changalucha, J., & Obasi, A. (2010). A process evaluation of the scale up of a youth-friendly health services initiative in northern Tanzania. *Journal of the International AIDS Society*, 13(1), 1–12.

Rosenstock, I. M. (1974). The health belief model and preventive health behavior. *Health Education Monographs*, 2(4), 354–386.

Roy, S., Roy, S., & Rangari, K. (2007). Comprehensive health care including sexual and reproductive health of Adolescents and youths is of vital importance to the nation. *Health and Population: Perspectives and Issues*, 30(4), 243–267.

Svanemyr, J., Amin, A., Robles, O. J., & Greene, M. E. (2015). Creating an enabling environment for Adolescents sexual and reproductive health: a framework and promising approaches. *Journal of Adolescents Health*, 56(1), S7–S14.

Thomée, S., Malm, D., Christianson, M., Hurtig, A.-K., Wiklund, M., Waenerlund, A.-K., & Goicolea, I. (2016). Challenges and strategies for sustaining youth-friendly health services—a qualitative study from the perspective of professionals at youth clinics in northern Sweden. *Reproductive Health*, 13(1), 1–13.

Tilahun, F. D., Assefa, T., & Belachew, T. (2010). Predictors of emergency contraceptive use among regular female students at Adama University, Central Ethiopia. *The Pan African Medical Journal*, 7, 16. https://pubmed.ncbi.nlm.nih.gov/21918703

Tilahun, M., Mengistie, B., Egata, G., & Reda, A. A. (2012). Health workers' attitudes toward sexual and reproductive health services for unmarried Adolescents in Ethiopia. *Reproductive Health*, 9(1), 1–7.

Tylee, A., Haller, D. M., Graham, T., Churchill, R., & Sanci, L. A. (2007). Youth-friendly primary-care services: how are we doing and what more needs to be done? *The Lancet*, 369(9572), 1565–1573.

UBOS. (2016a). Uganda Demographic and Health Survey 2016. Udhs, 625. www.DHSprogram.com

UBOS, I. (2016b). Uganda Bureau of statistics (UBOS) and ICF. 2018. Uganda Demographic and Health Survey.

Uganda Bureau of Statistics. (2016). GOVERNMENT OF UGANDA Uganda Demographic and Health Survey 2016. Udhs 2016, 625.

United Nations General Assembly. (1995). Principle 1 and Principle 4, respectively, of the ICPD Programme of Action, uphold human rights and gender equality and equity and women's empowerment. In Report of the International Conference on Population and Development. A/94/10/18. Programme of Action (Issue September 1994). https://www.un.org/en/development/desa/population/events/pdf/expert/27/SupportingDocuments/A_CONF.171_13_Rev.1.pdf

Viner, R. M., Ozer, E. M., Denny, S., Marmot, M., Resnick, M., Fatusi, A., & Currie, C. (2012). Adolescence and the social determinants of health. *The Lancet*, 379(9826), 1641–1652.

Warenius, L. U., Faxelid, E. A., Chishimba, P. N., Musandu, J. O., Ong'any, A. A., & Nissen, E. B. M. (2006). Nurse-midwives' attitudes towards Adolescents sexual and reproductive health needs in Kenya and Zambia. *Reproductive Health Matters*, 14(27),

119–128.

Wiljer, D., Abi-Jaoude, A., Johnson, A., Ferguson, G., Sanches, M., Levinson, A., Robb, J., Heffernan, O., Herzog, T., & Chaim, G. (2016). Enhancing self-efficacy for help-seeking among transition-aged youth in postsecondary settings with mental health and/or substance use concerns, using crowd-sourced online and mobile technologies: the thought spot protocol. *JMIR Research Protocols*, 5(4), e6446.

Woog, V., Singh, S., Browne, A., & Philbin, J. (2015). Adolescents women's need for and use of sexual and reproductive health services in developing countries. New York: Guttmacher Institute, August, 1–63.

Woog, V., Susheela, S., Alyssa, B., & Jesse, P. (2015). Adolescents Womens Need for and Use of Sexual and Reproductive Health Services in Developing Countries. Citeseer.

World Health Organisation (WHO, 1998). The World Health Report 1998: Life in the 21st century a vision for all. In The world health report 1998: life in the 21st century A vision for all (p. 241).

World Health Organisation . (WHO, 2004). The World health report: 2004: changing history. World Health Organization.

World Health Organisation .(WHO,2005). The World health report: 2005: make every mother and child count. World Health Organization.

World Health Organisation, (WHO,2006). The world health report 2006: working together for health. World Health Organization.

World Health Organisation (WHO,2009). Maternal mental health and child health and development in resource-constrained settings: Report of a UNFPA. World Health Organization.

World Health Organisation. (WHO, 2012). Making health services Adolescents friendly: developing national quality standards for Adolescents friendly health services.

World Health Organisation. (WHO,2014). Health for the world's Adolescents: a second chance in the second decade: summary. World Health Organization.

World Health Organisation. (WHO,2016). Progress report 2016: prevent HIV, test and treat all: WHO support for country impact. World Health Organization.

APPENDICES

Appendix I: COVID-19 risk management plan

It is challenging to predict the impact of COVID-19 on human population during conduct of research but the safety of study participants, researchers and the integrity of research remain paramount. To build more sustainable world, using evidence, action and influence, working in partnership with others conducting research in the midst of a global pandemic presents new ethical issues that require precaution and strictness to COVID protection is required.

Therefore, the COVID risk management plan that assist the researchers with COVID-19 prevention and promotes compliance with investigation and conduct of research involving human population adopted in this study are as listed below:

i. Continue with data collection as previously planned.
ii. Modify data collection methods to take account of the need to protect research staff and research participants and to comply with local regulations that includes social distancing, wearing of mask and use of hand sanitizer and promotion of vaccination among non-immunized study participants.
iii. Where possible to consider shifting to virtual methods of data collection, or modifying protocols for face-to-face engagement.
iv. Reconsider the choice of focus group data collection method that involve group gatherings, if possible (number of people determined by local regulations or advice).
v. Where possible to have pre-assessment of vulnerable groups and ensuring they are not involved in face-to face data collection.
vi. Ensuring that face-to-face data collection takes place outdoors with suitable physical distancing between researcher and research participants.
vii. To postpone data collection in area of high vulnerability until the situation improves or changes.
viii. Total cancellation of data collection in places with severe challenges.

However, researcher ought to consider carefully how best to proceed with the research on a case-by case basis, and to seek support and expert advice from relevant authority.

Appendix II: Study participants 'informed consent/assent form

Greetings, I'm called Tayebwa Amon a student of Public Health Department of Kabale University conducting study on the title: **factors influencing the uptake of Adolescents Sexual Reproductive Health services among Adolescents in Rubanda district**.in **South western Uganda** that has been approved by Kabale University and permission given by Rubanda district health officer.

Taking part in this study is voluntary. If you agree to participate, I will ask you some questions on the uptake of Adolescents sexual Reproductive Health services among Adolescents**.** Sincerely promised not take much of your time, no problems would arise, but if you choose at any time not to continue you are free to join and free to withdraw from the study at any point without any interference/ penalty.

There are no direct benefits for choosing to participate in this interview, but by participation, you will be helping researcher, Rubanda district and others to drive future reforms for the good of the students and school system in Rubanda. Promised to ensure that your personal information is kept private and record will not have your name, but only used for purposes of the study.

At this time, do you want to ask me anything about the study? If you have any questions at any time even after the interview, feel free to question me through this number: 0774364406/0785117945. Now that the consent form has been read and explained and understood, further questions addressed.

I therefore willingly agree to take part in the study.

_ _ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _
Initial of adult participant	Signature/Thumbprint of participant/ Parent/Guardian/Next of Kin	Date

_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _
Initials of Researcher	Signature	Date

Appendix III: Questionnaire for the respondents

SECTION A: Socio demographic factors of the respondents.

Participants Characteristics	Tick the right column
Respondent Age Group	
Age Group 10-14years	
Age Group 15-17years	
Age Group 18 – 19 years	
Respondent Gender	
Male	
Female	
Current level of Education	
Primary School	
Secondary School	
College/Tertiary institution	
Type of school you attend	
Boarding school	
Day School	
Religion	
Christian	
Muslim	
Others, specify……..	

Family Income Level	High	
	Middle	
	Low	
	None	

SECTION B:

Proportion of youths accessing sexual reproductive health services.

What services they have you sought from your health center (s)

Tick as may be applied.

	Type of service provided				
Health facilities providing SRH\ services	HIV counseling and testing	STI consultation	Family planning	Pregnancy consultation	Others specify
Ikumba/Rubanda Town Council Muko HC IV					
Hamurwa HCIV For Hamurwa Town Council					
Bubaare HC III For Bubaare Sub County					

SECTION C: Socio cultural factors of the respondents

Strongly agree=5 Agree=4, Not sure =3, Disagree=2, strongly disagree=1

	Question items in the study	SA (5)	A (4)	NS (3)	D (2)	SD (1)
1	Some religion restricts affects the use Adolescents sexual reproductive health services					
2	There are part of culture that prohibits uptake of ARHS					
3	Some religions do not encourage the use family planning methods					
4	parents/ care taker has to chase me away from if I happen to become pregnant					
5	Peer influence can affect SRH					
6	My parents believe that circumcision can prevent HIV/ AIDS					
7	There is restriction to sexual rights until marriage					

Section D Health facility factors

Strongly agree=5 Agree=4, Not sure =3, Disagree=2, strongly disagree=1

	STATEMENT	SA (5)	A (4)	NS (3)	D (2)	SD (1)
1.	Adolescents/youth friendly reproductive health services (YFRHS) are provided in the community health facilities					
2.	Am comfortable with the infrastructure design of my nearest facility					
3.	Supplies are always available at the health facility					
4.	Health care workers in the facility can handle all issues related to sexual and reproductive health services of Adolescents.					
5.	Health workers are always available at the health facility					
6.	It takes long waiting time to get Adolescents sexual and reproductive health services while in the facility					

Section E: Ways to improve access and uptake of Adolescents and sexual reproductive Health services

Strongly agree=5 Agree=4, Not sure =3, Disagree=2, strongly disagree=1

	STATEMENT	SA (5)	A (4)	NS (3)	D (2)	SD (1)
1	Through capacity building by continuous medical education and trainings and workshops for health care workers.					
2	The youths seeking SRHS be served first at the facility					
3	The government to recruit more health workers to facilitate the Provision of SRHS to Adolescents					
4	Health workers to have separate units and time for the consultation of youths patients					
5	Facilities be supported to offer all services needed by the Adolescents					
6	Youths friendly corners be established in all facilities to offer SRHS to the Adolescents					
7	Others specify.					

Appendix IV: Rukiga/Runyankore translation of section A, B, C, D and E

EBICWEKA

Ekicweka kyokubanza (A)

Orairegye/osibiregye? Eiziina ryangye ndi TAYEBWA AMON omwegi aheitendekyero rya Kabale yunivasite. Ndiiyo ninkora okucondoza aha shonga ezirikuretera eminyeeto yomumushogoyo yakozesa ebyamagara ebikwatirine nebyomubonano nokuzaara obwe nyikirizibwe eitendekyero rya Kabale Yunivasite kandi mpeirwe obushoborozi kuruga owa mukuru we byamagara bya disiturikiti ya Rubanda. Okwejumba kwawe omukucondoza nihabwabusha, koraabe weikiriza kwejumbira omukucondoza oku, naaza kukubuzaho ebibuzo bikye ebirikukukwataho, Okubuziibwa oku Nikitwara endakiika nkamakumi ashatu gonka. Tihariho shonga yoona erakukwaateho kandi kuwakuhurira otashemererererwa ekyakubuzibwa orikirizibwa kworeka obutashemererwa bwawe kandi orabaasa nokutakigarukamu. Kuwakwenda kuruga omukukyondoza oku ahabweire bwoona orikirizibwa hatariho kakwakurizo koona Tihariho ekyoratunge kuruga omukucondoza oku konka nikiija kuyamba abakyondoza omushonga nizo zimwe omuryogumwanya okugirangu eminyeto neshoonga ezirikubakwataho zatungomubazi. Ninyija kukora ekirikwetengesibwa kureeba ngu ebirikukukwataho byaba ebyekihama kandi byarindwagye. Ebirakurugeho tibiraaze kuba byeine amaziina gaawe. Nibiza kubiikwa omumwanya ogwehererereire kandi bikozesibwe omushonga zokucondoza.

Aharyobubweire oine ekiibuzo kyoona ekyorikwenda kubuza omuryokukucondoza? Kuwakuba oine ekiibuzo kyoona nahanyima yokubuzibwa orikirizibwa enamba zesiimu zangye ni (**+256)774364406/ 785117945.** Nobaasa kuzikozesa kuhokuba hariho ekyorenda kumanya ebikwatirine nokukyondoza oku.

Ekihandiko eki ekirikunyikiriza omukucondoza oku nakiishoma kandi nakyetegyerezagye kandi nebibuzo ebyabuziibwa byagarukwamugye mwenu nahabwekyo neikiriza kwejumbira omukucondoza oku.

Signature/ekinkumu kyowayejumiira omukucondoza hamwe ne ebiiro……

…….

Eiziina ryomukyondoza, Siginica hamwe ne ebiiro ……

……..……

……

Appendix V: Questionnaire in Rukiga/Runyankore

Ekicweka A

EMYAKA NOBUHANGWAMUNTU BWABANYAKUGARUKAMU.

Entwaza ya nyakwejumramu	Kyebera kurugirira ahorikwejumbira
Omugiigi ne myaka	
Emyaka10 kuheika ahari 14	
Emyaka 15 kuheika ahari 17	
Emyaka 18 kuheika ahari 19	
OBUHANGWA BYA NYAKUGARUKAMU	
Sheija	
Kazi	
Orurengo rwebyobwegyese	
Omupurayimare	
Omusekendure	
Eidararyaheiguru	
Tinyine bwegyese bwoona	
Omuringo gweishomero eryoregyeramu	
Eryokurarayo	
Eryokwegyeramu notaha	
Tindega	
Ediini yorikweikirizamu	
Omukurasi wa kurisito	
Omusiramu	
Ediini endijo, yoreka……..	

Orurengo rwentasya yeeka yomubuziibwa	Neyaheiguru	
	Neya mporampora	
	Ninkye	
N,.khh	Teitwine ntasya yoona	

Ekicweka B: Ebicweka byomuhendo gweminyeto ogurahikirira Emiringo yebyamagara amarungi ge byomubonano nokuzaara, kyebere kurugirira.

	Type of service provided				
Eirwariro erwokutungirah o obuhereza	Okuhumurizibw a no kukyebeza munywengye	Okwebuuz a ahandwara zirikuretwa obushabani	Ebikwatirine nebyokubarir a oruzaro	Ebikwatirin e nokugira enda	Ebiindi byoreek e
Ikumba na Rubanda Tawuni kanso ahari MukoHC IV					
Hamurwa HCIV A habwa Hamurwa Tawuni kanso					
Bubaare HC III Aha bwegomborora ya Bubaare.					

Ekicweka C: Emiicwe, nemigyenzo yanyakugarukamu

	Ebicweka byebibuzo	SA (5)	A (4)	NS (3)	D (2)	SD (1)
1	Ediini zimwenazimwe nizitanga eminyeto yomumushogoyo okukozesa ebyamagara ebirungi ebikwatirine nebyomubonano nokuzaara					
2	Hariho emigyenzo emwenemwe erahakanisa eminyeto okukozesa obuhereza burungi bwebyamagara ebikwateirine nebyomubonano nebyokuzaara kwaayo.					
3	Ediini zimwenazimwe zirangira eminyeto okukozesa embarira zoruzaro.					
4	Akakungu niikabasa kuteganisa ebikwatirine nenkozesa ahabyomubonano nokuzaara ebyamagara					
5	Abazeire bamwe beine enyikiriza ngu okushara akashushu kobusheija omuminyeto nikitangira okutunga akakoko munywengye.					

6	Hariho enyikiriza eragira ngu obugabe bwokwejumba omubyomubonano kishemerire kubaho ahanyima yokutunga obushwere.					

EKICWEKA D: ESHONGA EZIRAKWATIRANA NENKORA YEBYAMAGARA

	STATEMENT	SA (5)	A (4)	NS (3)	D (2)	SD (1)
1.	Amarwariro geitu agebyaro nigaheereza obuhereza bwebyamagara amarungi ge minyeto ebirikukwataahabyomubonano nokuzaara ebirungi.					
2.	Nimba nteine shonga nokweirwariro ryeitu rikozeirwe obwe naaba ndikutungamu obuhereza bwoona ebiwateireine nebyeminyeto.					
3.	Ebikozeso nibiba birimu omwirwariro eshaha yoona eiwatayayira eirwariro obwo orikuronda obuhereza bweshonga zeminyeto.					
4.	Abakozi bwebyamagara nibahereza obuhereza bwoona obukwatireine ne byamagara amarungi neshoonga zebyomubonano nokuzaara kweminyeto yomumushogoyo.					
5.	Abaheereza bebyamagara nibaba bari aherwariro eshaha yoona eyorikuba nobenderaho omwirwariro.					
6.	Nikitwara eshaha ndeingwa otegyereize obuhereza bye byamagara amarungi ge minyeto ebikwateieirine nebyomubonano nokuzaara obwe wari a heirwariro.					

Ekicweka E: Emiringo eyokubasa kutungura okuhikirira nokukozesa obuhereza bwebyamagara amarungi omushonga zebyomubonano nokuzaara kweminyeto eri omumushogoyo

Strongly agree=5 Agree=4, Not sure =3, Disagree=2, strongly disagree=1

	STATEMENT	SA (5)	A (4)	NS (3)	D (2)	SD (1)
1	Kurabiira omukukugura nomukushomesibwa nokweijukizibwa ahabikwatireine neshoonga zebyamagara amarungi ge minyeto.					
2	Eminyeto yomumushogoyo erikuronda obuhereza bweshonga ezirikubakwataho omubyomubonano no kuzaara bashemereire kuhebwa omugisha gokubaanza omumarwariro goona.					
3	Gavumenti eshemerire kuba neyongyera ahamuhendo gwabashaho omumarwariro kugira ngu eminyeto etunge obuhereza obukwatireine neshoonga zebyamagara gabo.					

4	Abaheereza bebyagara bashemereire kutaho obushengye obwehererire neshaha e byokureberamu Eshonga zeminyeto eri omumushogoyo					
5	Amarwariro goona gashemerire kukwatirwaho kugira ngu gahereza obuhereza bwebyetago bye minyeto yomumushogoyo.					
6	Eyeindi miriingo gyoreke.					

Appendix VI: Informed consent form for FGD

Greetings, my name are **Tayebwa Amon** a student from Kabale University, school of community health. I am here to investigate on factors affecting the uptake of Adolescents sexual Reproductive Health services among Adolescents in Rubanda district.

I would like to request you to participate in the study by participating in a group discussion with other fellow Adolescents. The discussion will last about 40 minutes.

All information you will provide shall be kept confidential and will strictly be used for the study purpose and therefore, shall not be shared with any other person who is not part of the study. In addition, your name shall not be required, the consent form that you will sign will not be attached to the information you will provide to avoid linkage of your personal details to the information you will provide.

You were randomly selected to participate in this study with the help of VHT parish coordinator. A total of 6-12 students from this parish will participate in this discussion,

You will not receive any payment for taking part in this study but only transport to take you back home. There may be no direct benefits to you for taking part in this study. However, by joining this study, you are helping to provide vital information which may help design programs to improve uptake of SRH among Adolescents, thereby, reducing teenage pregnancies, STIs and HIV/AIDS. Your participation in this study is voluntary; you may stop participating at any time. Your decision not to take part in this study or to stop your participation will not affect your access to any services from your health facility.

You may also decline to discuss personal experience if you do not want to. If you have any questions about taking part in this study, call Tayebwa Amon on 0774364406/ 0785117945 if you have any questions about your rights as a research subject, feel free to ask. Do you have any questions or clarification you need before we begin? Do I have your permission to continue? I therefore willingly agree to take part in the study.

_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _
Initial of adult participant	Signature/Thumbprint of participant/ Parent/Guardian/Next of Kin	Date
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _	_____
Initials of Researcher	Signature	Date

Appendix VII: Interview guide for adolescents (FGD)

1. Do you know what it means by Adolescents sexual reproductive health services?
2. How would you describe sexual and reproductive health services?
   Probe: how important is sexual reproductive health services to the Adolescents
3. Where do you get the sexual and reproductive health services provided?
   Probe: what kind of Adolescents sexual and reproductive health services are provided in the health facility?
4. Do you face any challenges related to access and utilization of Adolescents sexual and reproductive health services?
5. What are the problems that affect reproductive health services available in the community?
   Probe: what do you suggest that can help improve these challenges?
6. How can these services be improved to be well utilized?
   Probe; what measures can be taken to improve the utilization?
7. Do you normally visit health facilities around you for Adolescents sexual and reproductive health services?
8. What is your experience during the visit if you have you ever accessed and used these services from any of the places that you mentioned above?
   Probe, how do you want ASRH services to be improved?
9. What are the things you do not like most about the ASRH services?
10. Do you have access to Adolescents sexual and reproductive health services?
    Probe: explain more why you think the Adolescents face challenges in accessing the services?
11. In your opinion, what discourages Adolescents from making use of reproductive health services?
    Probe: Whom do you think is responsible for the problems associated with service use and why?
    Probe: How would you like to see Adolescents reproductive health services offered?

Appendix VIII: Interview guide for adolescents (FGD)translated in Rukiga/Runyankore

1. Wobaasa kugamba ota aha byamagara amarungi ebikwasire ahabyomubonano nokuzaara omuminyeto eri omumyaka yomushogoyo?
   Probe: Eshonga ezikwasire ahabyagara amarungi ge byomubonano nokuzaara byine mugashoki ahaminyeto eri omumyaka yomushogoyo?
2. Obuhereza bwebyamagara ebikwasire ahabyamagara geshonga zebyomubonano nokuzaara omuminyeto eri mumwaka yomushogoyo nibitungirwa nkahe?
   Probe: Nibuhereezaki obukwasire ahabyamagara amarungi obuturikutungira omumarwariro aza obukwatireine nebyamagara ge byomubonano no kuzaara?
3. Nibizibuki ebirikukwa ahaminyeto erimumushogoyo aza ebikwatirine neshoonga zomubonano no kuzaara omuryogumwanya?
   Probe: Nimugira bikabasa kukyendezibwa baata?
4. Hakakorwaki kureeba ngu omutindo gwayeyongyera kugira obwobuhereza bwayeyongyera kukozesibwa?
   Probe; Nimiringoki eyotebwa munkora kugira ngu obuhereza obu bwakozesibwa?
5. Nobaasa kugamba okuwabirebire biri obuwaaza kuronda obuhereza obu omumwanya oguwayoreka aharuguru?
   probe, Wobiire oreenda ngu hakorweki okwenda kutunguura omutindo gwebyamagara amarungi omuminyeto ekwasire aha shoonga zomubonano nokuzaara ?
6. Ebirikusingayo kutakushemeza omubuhereeza bwebyamagara ge minyeto ebikwatirine ebyomubonano no kuzaara nibeiha?
7. Notekaateka ngu eminyeto yomumyaka yomushogoyo eramanya ngu obuhereza obu buriho kandi barabuhikirira?
   Probe: Murabaasa kworeka ahabwenki eminyeto eratunga obuzibu bwokuhikirira obuhereza bwe byamagara gabo?
8. Omuntekaateka yawe ningashi yanyu ekirikuteganisa eminyeto obutakozesa obuhereza obukwatireine ne byamagarage byomubonano nokuzaara neibiha?
   Probe: Nooha owojunanizibwa ahabwebizibu ebikwateirine nokukozesa kubikobuhereza obu kandi ahabwenki?

Appendix IX: Consent form for key informants

Greetings, I am Tayebwa Amon, a student at Kabale University pursuing a Masters degree in Public Health. As a requirement for the fulfillment of my degree, the university requires me to carry out research on a selected topic. My study topic is "**factors influencing the uptake of Adolescents' sexual and reproductive health services in Rubanda district".** You have been selected to take part as a key respondent in this research and this document will provide you with further information about it, so that you can decide whether you would like to take part. Please take time to read the information carefully.

The purpose of this study is to assess the factors associated with the uptake of Adolescents sexual and reproductive health services in Rubanda district. Your participation in this study will greatly help in this assessment. This research will not inflict any harm whatsoever to anyone who takes part in it and all the rights of the participants will be held in high regard**.** There is no direct benefit for you in this study. However, the findings from this research could help in the facilitation of better sexual and reproductive services in the area especially for the Adolescents. It may also help in the formulation of better policies concerning sexual reproductive health. Participants may also be able to attain extra knowledge on the above topic. This study considers health care providers to be part as they are the ones who are always facing Adolescents to face or already facing sexual and reproductive issues. If you chose to take part in this study, you will be required to participate in interviews that will not go beyond 30 minutes. A voice recorder may be used to record the interviews for easy data collection and storage. You may also be required to answer a number of research questions that are related to Adolescents sexual and reproductive health. All the information gathered from you will be kept completely confidential. Study codes will be used. The information gathered shall not be shared with anyone else in order not to defy the right to privacy. I therefore willingly agree to take part in the study.

_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _
Initial of adult participant	Signature/Thumbprint of participant/ Parent/Guardian/Next of Kin	Date
_ _ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _ _ _	_ _ _ _ _ _ _ _ _ _
Initials of Researcher	Signature	Date

Appendix X: Key informant interview guide for health workers / youths program providers

1. What challenges do you encounter while providing Adolescents sexual and reproductive health services?

Probe: in your opinion, which services are more utilized very often?

2. Which reproductive health services for the youths between 10 and 19 are provided in your facility?

Probe: In your opinion, how can reproductive health service provision for the youth be improved?

3. How often and time it takes to provide reproductive health services in this facility?

Probe: do you think their needs are met during their visits?

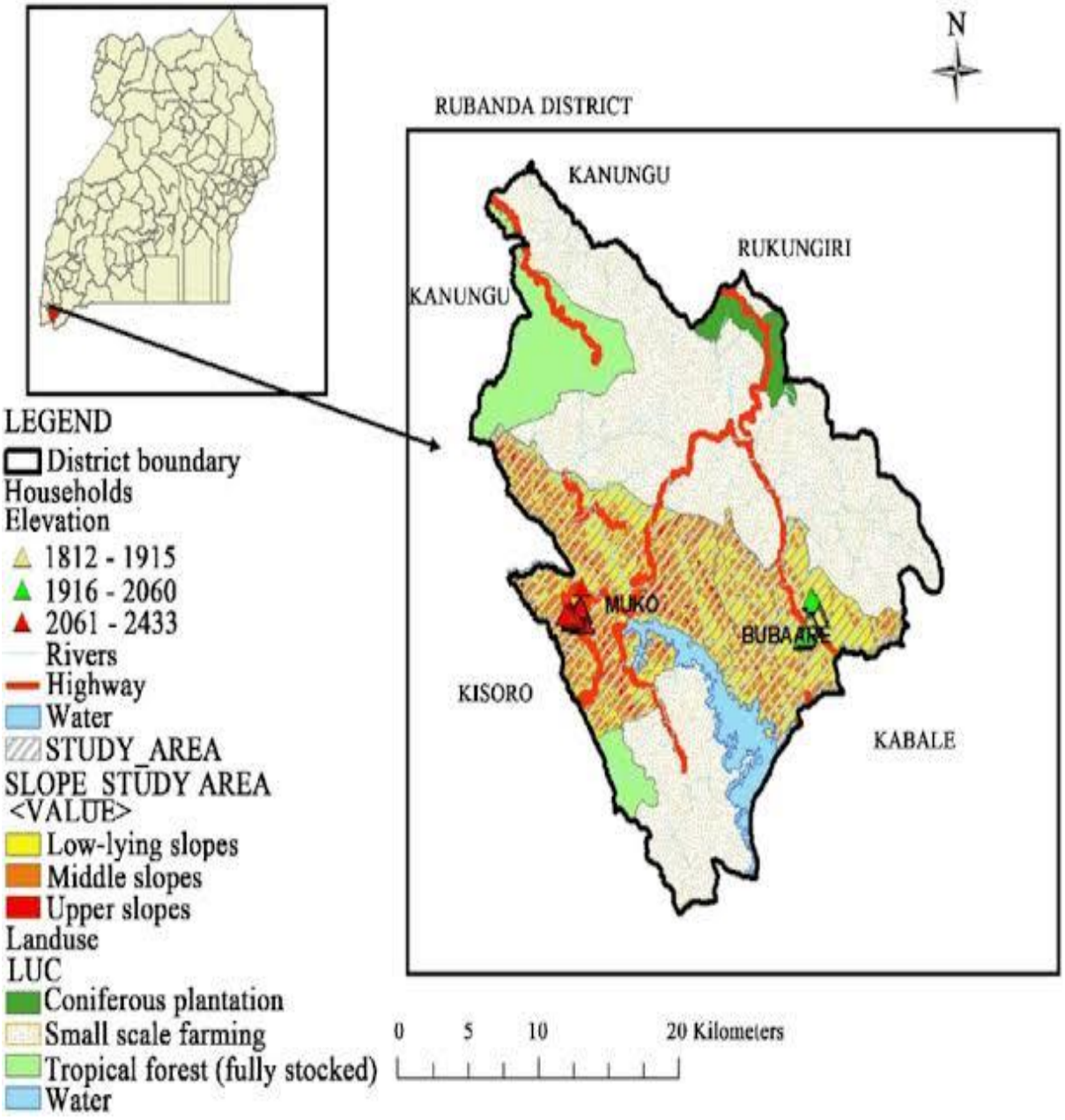
4. Are there special units set to provide reproductive health services for male and female youths? Probe: Do you support that a separate unit should be kept for youth issues?

Probe: Do you think that there should be there more training for health workers on the Adolescents' sexual and reproductive health services

4. Do you see the Adolescents passing through as the try to access ASRH services?

Probe: what should be done to improve their uptake to ASRH services?

Appendix XI: Figure showing map of Rubanda District (study area)



Appendix XII: Letter of approval and confirmation of dissertation for submission

KABALE UNIVERSITY
"Knowledge is the future"

Kabale University
P.O Box 317, Kabale - Uganda
Tel: +256782-860-259
Email: info@kab.ac.ug
Website: www.kab.ac.ug

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KABSOM, KABALE UNIVERSITY
COMMUNITY HEALTH DEPARTMENT
MASTER'S IN PUBLIC HEALTH (MPH) PROGRAM

9TH NOVEMBER 2021

THE HOD

Community Health Department

KABSOM, Kabale University

Dear Prof.

RE: LETTER OF APPROVAL AND CONFIRMATION OF THESIS FOR SUBMISSION

This is to state and confirm that I have closely examined the work and confirm that Mr Amon Tayebwa thesis title: "Factors Affecting the Uptake of Adolescent Sexual Reproductive Health Services in Rubanda District" require further critical review by the ethical review board.
Kindly receive this recommendation that he should be allowed to proceed for ethical validation and authorization for data collection in the field.
I will welcome any inquiry or further question in this regards
Thanks for continued support and assistance

Yours Sincerely

Nwankwo Mercy (PhD)
Phone: (+256) 780407850: Email: mnwankwo@kab.ac.ug

Appendix XIII:Letter from the Head of Department

KABALE UNIVERSITY

PO Box 317
Kabale - Uganda
Email: info@kab.ac.ug
admissions@kab.ac.ug

Tel: 256-303-848355/04864-26463
Mob: 256 782860259
Fax: 256-4864-22803
Website: www.kab.ac.ug

DEPARTMENT OF COMMUNITY HEALTH

KABALE SCHOOL OF MEDICINE (KABSOM)

Kabale, 9th November 2021

To
The Chairperson,
Research Ethics Committee (REC)
Mbarara University of Science and Technology (MUST)

Dear Sir,

RE: RECOMMENDATION OF Mr. AMON TAYEBWA'S MPH DISSERTATION PROPOSAL FOR RESEARCH ETHICS REVIEW

This is to recommend the Master of Public Health (MPH) dissertation proposal of Mr. Amon Tayebwa for Research Ethics Review by your Research Ethics Committee (REC).

Mr. Tayebwa is a *bona fide* second year MPH student in the Department of Community Health at Kabale University (Reg. No. 17/A/MPH/077/W). He has fulfilled all the internal requirements to proceed with his dissertation. He is a very keen student in all matters. He proposes to study:

FACTORS AFFECTING THE UPTAKE OF ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH SERVICES IN RUBANDA DISTRICT

I confirm that this proposal has been reviewed by the relevant authorities of the Department of Community Health and Kabale School of Medicine and approved for submission to your REC. The Department promises to offer him all the administrative, technical and mentorship support that he will need for this research, upon your approval of the study. Looking forward to favourable response from you,

Yours Sincerely,

Dr. Everd BIKAITWOHA MANIPLE, PhD (RCSI), MPH (MAK), MBChB (MAK)
Professor of Public Health and Ag. Head, Department of Community Health
Tel: +256 772 592506 e-mail: ebmaniple@kab.ac.ug

APPENDIX XIV:Letter of Approval from the REC Mbarara University of Science and Technology

MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY
P.O. Box 1410, Mbarara Uganda. Tel: +256 485433795; Fax: +256 4854 20782
RESEARCH ETHICS COMMITTEE
E-mail: sec.rec@must.ac.ug

31/03/2022

To: AMON TAYEBWA

KABALE
UNIVERSITY
0774364406

Type: Initial Review

Re: 2663: Factors influencing the uptake of Adolescents sexual and reproductive health Services in Rubanda District.

I am pleased to inform you that at the **138th** convened meeting on **29/03/2022**, the MUST Research Ethics Committee, committee meeting, etc voted to approve the above referenced application.
Approval of the research is for the period of **31/03/2022** to **31/03/2023.**

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for re- review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The

REC may conduct audits of all study records, and consent documentation may be part of such audits.

5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **31/03/2023** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

The following is the list of all documents approved in this application by MUST Research Ethics Committee:

No.	Document Title	Language	Version Number	Version Date
1	Cleaned protocol	English	English	2022-03-29
2	translated questionnaire consent form	Rukiga / Runyankore	Rukiga/Rukiga	2022-03-05
3	translated parent consent form	Rukiga / Runyankore	Rukiga/Rukiga	2022-03-05
4	Translated focus group discussion consent form	Rukiga / Runyankore	Rukiga/Rukiga	2022-03-05
5	translated questionnaire	Rukiga / Runyankore	Rukiga / Runyankore	2021-11-15
6	Data collection tools	ENGLISH	English	2021-11-15

Yours Sincerely

Bajunirwe Francis

For: MUST Research Ethics Committee

Appendix XV: Plagiarism report

Turnitin Originality Report

- Processed on: 03-May-2022 10:10 EAT
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- Word Count: 23474
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ASSESSING FACTORS AFFECTING THE UPTAKE OF ADO... By Tayebwa Amon

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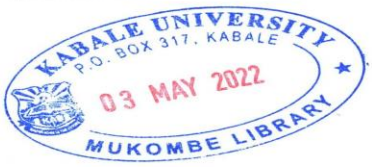

COMPLIANCE LETTER

Amon Tayebwa
Kabale University
0774364406
25th /March /2023

To Mr Kirimuhuza Claude
School of Medicine
Kabale University
Kabale,

RE: COMPLIANCE LETTER

This is my compliance letter for the initial review made on my research titled factors influencing the uptake of adolescent‘s sexual and reproductive health services in Rubanda District in South western Uganda.

I was able to make changes to my research report as required by faculty panel as shown in the table attached to this letter and the entire document.

Thank you
Amon Tayebwa
0774364406/ 0785117945

No	Issue raised	Handling approach	chapter
1	To start with my name with AMON and not TAYEBWA	This was changed right from the cover page	Cover page
2	i)My background of study to begin from the global down to the area of study ii)to include ASRH services available in the back ground	Revised and written well. ASRH services are included in my background	one
3	To clearly state the significances of study and justification of the study significant	Were clearly stated in the document.	One
4	To show the limitation of the	Limitations are in	Three

	study	the document already	
5	To show how research tools were validated	This was done by performing pre- test study on 20 participants and again were tested for reliability by my former supervisors as experts	Chapter three
6	To show which objectives were analysed using qualitative method	Clearly stated that it was for Objectives 2 and 3	In chapter four
7	To define clearly the study design	Clearly define in the document on chapter three	Chapter three
8	To describe confidentiality to the study participants	This is well described in the document in the limitations encountered and on data collection procedure as they were assured of confidentiality and privacy of their participation..	Chapter three and on informed consent and assent form
9	Risks posed by the study	There was no any risk the study posed	