

UNIVERSITY OF GHANA

SCHOOL OF PUBLIC HEALTH



**UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES BY
STUDENTS OF THE UNIVERSITY OF GHANA**

BY

ADELLE MYRA NKANSAH

(11007180)

**THIS DISERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF
MASTER OF PUBLIC HEALTH (MPH) DEGREE**

(MARCH 2025)

Declaration

I, Adelle Myra Nkansah, declare that this dissertation is the result of my own research conducted under the supervision of Dr. Deda Ogum Alangea. All published literature of other researchers has been duly acknowledged by means of referencing.

ADELLE MYRA NKANSAH

DR. DEDA OGUM ALANGEA

(STUDENT)

(SUPERVISOR)

SIGNATURE

SIGNATURE



DATE

DATE

Monday 17th March, 2025

Monday 17th March, 2025.



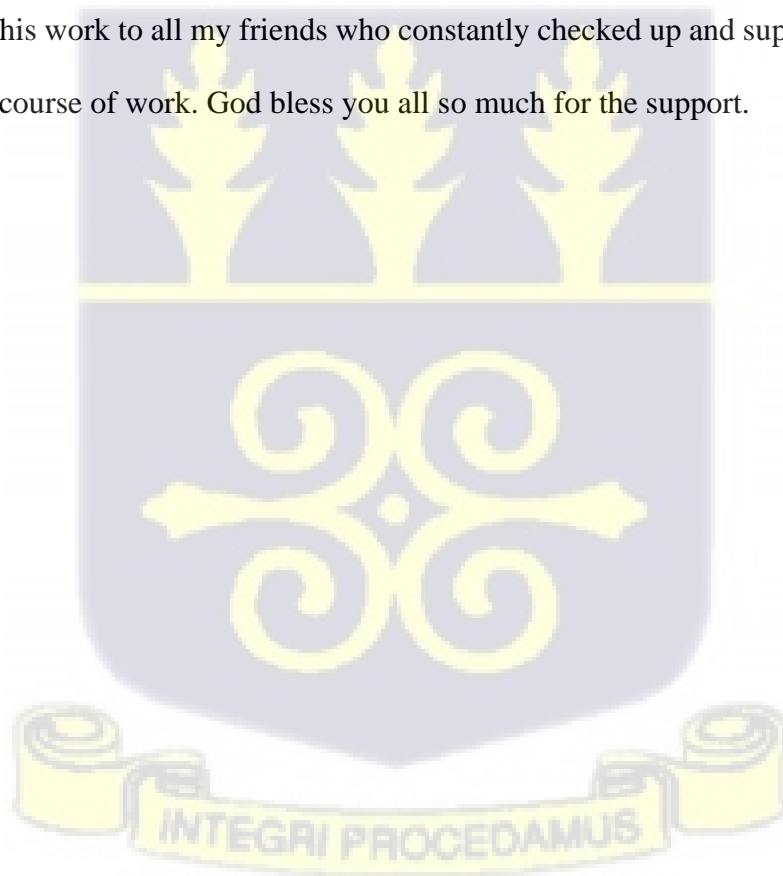
INTEGRI PROCEDAMUS

DEDICATION

I dedicate this dissertation to my ever-supportive parents, Mr. and Mrs. Andrew Nkansah who encouraged me along the way.

To my siblings, Adelle Safo, Emmanuel Nkansah and Afia Nkansah, I say thank you for your immense assistance and contribution to getting this work done.

I also dedicate this work to all my friends who constantly checked up and supported me in any way during the course of work. God bless you all so much for the support.



ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the following individuals who have played instrumental roles in the completion of this dissertation.

My first thanks go to the Almighty God, without whom I would not have come this far.

I am deeply thankful to my supervisor, Dr. Deda Ogum Alangea, for her unwavering guidance, patience, invaluable insights, and continuous support throughout the research process. Her expertise and encouragement significantly enriched the quality of this work.

Special thanks to all faculty members of the Department of Population, Family and Reproductive Health and the entire School of Public Health of the University of Ghana community for giving access to resources necessary for the successful completion of this project as well as a supportive academic environment.

I am also grateful to my family for their unwavering encouragement, understanding, and continuous belief in my capabilities, which served as a constant source of motivation throughout this academic journey. Especially to my siblings, Emmanuel and Afia for playing instrumental roles in my data collection.

Last but not least, I want to express my appreciation to my friends and peers who provided support, encouragement, and valuable insights during this research endeavour.

Each of you has played a pivotal role in the realization of this dissertation, and for that, I am truly thankful.

ABSTRACT

Background: Sexual and reproductive health (SRH) is an essential human right that ought to be within reach for every person, including those pursuing higher education at universities. Nonetheless, studies have revealed that university students encounter distinct challenges when it comes to obtaining SRH services. These obstacles include social stigma, inadequate confidentiality, and restricted service availability. Existing research evidence estimates that over 70% of university students engage in sexual activity, which places them at an increased vulnerability to adverse sexual and reproductive health consequences. The main objective of the study is to assess utilization of sexual reproductive health services by students of the University of Ghana.

Methods: The study employed a cross-sectional study design and quantitative research instruments. A random sampling technique was employed to enrol 443 undergraduate students from the University of Ghana. A structured questionnaire was created and administered to collect information from the participants. The data were analysed using STATA version 17.

Results: In this study, 351 questionnaires were collected, resulting in a response rate of 79.2%. The study explored the socio-economic background, SRH status, and experiences of university students, highlighting their perceptions, behaviours, and needs. Most participants were young adults aged 20–24, with varying sources of financial support.

Students were relatively more comfortable discussing SRH issues with peers and healthcare but felt uncomfortable discussing these topics with parents.

SRH service utilization was 36.47%, highest among those aged 20–24 years (43.98%) and Level 300 students (48.89%). Key factors associated with higher uptake included being in a sexual relationship (65.94%) and having a history of STI, pregnancy, or abortion. In the

adjusted model, only a history of STI remained significantly associated with utilization (AOR = 3.38, $p = 0.04$), while those who had never had sex were significantly less likely to utilize services (AOR = 0.08, $p = 0.00$).

Participants recommended expanding on-campus services, including STI testing, counseling, breast examinations, cervical cancer screening, and pregnancy testing.

Conclusion: The study offers crucial insights into university students' sexual and reproductive health dynamics, emphasizing a strong demand for tailored services. While positive perceptions exist, addressing barriers like information gaps and stigma is essential. The research underscores the importance of comprehensive education, destigmatizing healthcare, and recognizing diverse backgrounds, emphasizing the need for nuanced, student-specific approaches to reproductive health services.

Keywords: Utilization, Sexual and Reproductive Health Services.

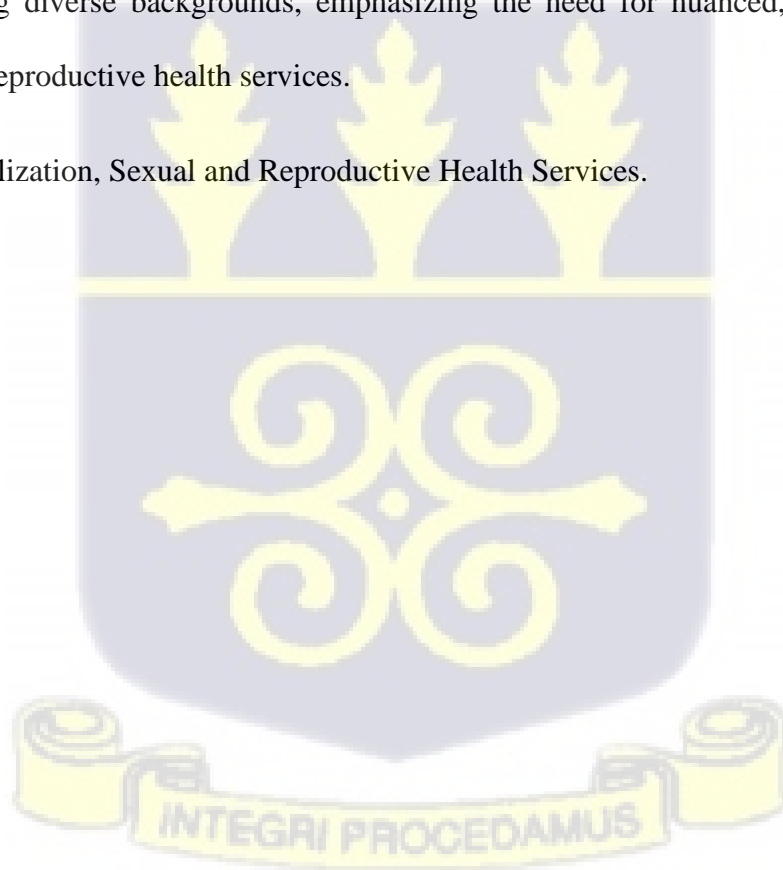


TABLE OF CONTENTS

Declaration..... i

DEDICATION ii

ACKNOWLEDGEMENTS..... iii

ABSTRACT..... iv

TABLE OF CONTENTS..... vi

LIST OF FIGURES..... 1

LIST OF TABLES..... 2

CHAPTER ONE 3

1.0 INTRODUCTION 3

 1.1 BACKGROUND 3

 1.2 PROBLEM STATEMENT 5

 1.3 JUSTIFICATION 6

 1.4 RESEARCH QUESTIONS..... 8

 1.5 OBJECTIVES 8

 1.5.1 General Objective 8

 1.5.2 Specific Objectives 8

 1.6 CONCEPTUAL FRAMEWORK..... 8

 Figure 1: Conceptual framework adapted from (Nakirijja et al., 2018)..... 9

 1.6.1 EXPLANATION OF CONCEPTUAL FRAMEWORK 9

LITERATURE REVIEW 12

 2.1 Introduction 12

 2.2 Sexual Reproductive Health Services..... 12

 2.3 SRH Needs of Students on Campus..... 14

 2.4 Factors Influencing Utilization of SRH Services..... 14

CHAPTER THREE 18

METHODS..... 18

 3.1 Introduction 18

 3.2 Profile of Study Area 18

 3.3 Study Design..... 19

 3.4 Study Population..... 19

 3.5 Inclusion Criteria 19

 3.6 Exclusion Criteria..... 19

 3.7 Variables..... 19

 3.7.1 Dependent Variable 19

3.7.2 Independent Variables.....	19
3.8 Sample Size Determination.....	20
3.9 Sample size adjustment	20
3.11 Data Collection Instrument.....	21
3.12 Sampling Technique and Procedure	21
3.13 Data Processing.....	22
3.14 Data Analysis	22
3.15 Data Quality Control	22
3.16 Ethical Considerations.....	23
CHAPTER FOUR	24
RESULTS	24
4.1 Introduction	24
4.2 Socio-demographic and Economic Characteristics of Participants.....	24
4.3 Sexual and reproductive health status of participants	27
4.4 Sexual reproductive health experiences of participants	28
4.5 Participants' Perception of Sexual Reproductive Health (SRH)	29
4.6 Awareness of SRH services on campus.....	31
4.7 Utilization of Reproductive Health Services by participants.....	31
4.8 Factors influencing the utilization of SRH services on campus.....	33
4.9 SRH service needs of participants.....	34
4.10 Association Between Socio-demographic and economic characteristics of participants and Utilization.....	36
4.11 Association Between Sexual and reproductive health status and experiences of participants and Utilization of SRH Services	37
4.12 Determinants of Sexual and Reproductive Health Service Utilization.....	39
4.13 Summary	40
CHAPTER FIVE	42
5.1 Introduction	42
5.2 Socio-demographic and socio-economic information of students.....	42
5.3 Sexual and reproductive health status and experiences of students.....	43
5.4 Students' perception and awareness of Sexual and Reproductive Health (SRH)	44
5.5 Utilization of Reproductive Health Services by students on campus	45
5.6 Factors influencing the utilization of RSH by students on campus.....	46
5.7 SRH needs of students on campus.....	48
CHAPTER SIX.....	53
6.1 Conclusions	53

6.2 Recommendations	54
6.3 Further and Future Research	55
REFERENCES	57
APPENDICES	62
QUESTIONNAIRE ON STUDENTS' UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES IN THE UNIVERSITY OF GHANA.	62

LIST OF ACRONYMS

BSE – Breast Self-Examination

FP – Family Planning

HIV/ AIDS – Human Immuno-Deficiency Virus/ Acquired Immuno-Deficiency Syndrome

LMICs – Low- and Middle-Income Countries

STIs – Sexually Transmitted Infections

STD – Sexually Transmitted Diseases

SRH – Sexual and Reproductive Health

SRHR – Sexual and Reproductive Health and Rights

SRHS – Sexual and Reproductive Health Services

VCT – Voluntary Counselling and Testing

WHO – World Health Organization

YFHS – Youth Friendly Health Services



LIST OF FIGURES

Figure 1: Conceptual Framework9

Figure 2: Source of Information on SRH Services on Campus.....32

Figure 3: Common SRH services accessed on campus.....34

Figure 4: SRH Services Needed by Participants on Campus.....36



LIST OF TABLES

Table 4.1 Socio-demographic and economic characteristics of participants.....26

Table 4.2 Sexual reproductive health status of participants28

Table 4.3 Sexual reproductive health experiences of participants.....29

Table 4.4 Participants Perception of Sexual Reproductive Health.....31

Table 4.5: Utilization of Reproductive Health Services by participants.....33

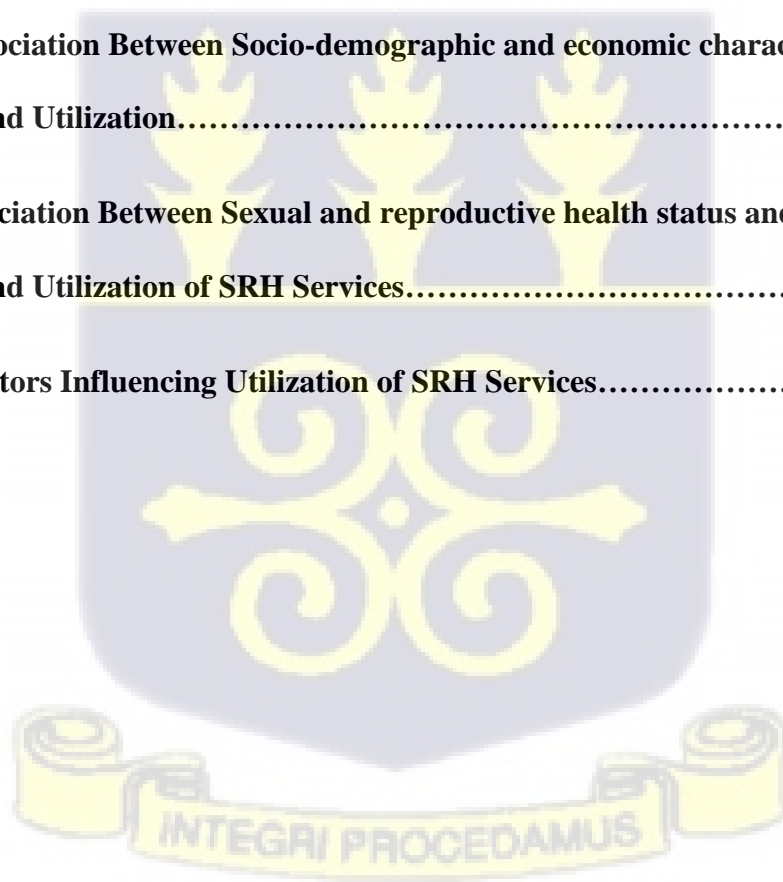
Table 4.6: Factors influencing the utilization of SRH services on campus.....35

Table 4.7: SRH services needed by participants on campus.....36

Table 4.8: Association Between Socio-demographic and economic characteristics of participants and Utilization.....37

Table 4.9 Association Between Sexual and reproductive health status and experiences of participants and Utilization of SRH Services.....39

Table 4.10 Factors Influencing Utilization of SRH Services.....40



CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND

Sexual and reproductive health is a state of complete physical, mental and social well-being in all matters relating to the reproductive system (UNFPA, 2022). The International Conference on Population and Development brought to the fore, issues of sexual and reproductive health (SRH) in 1994. A definition of the term was subsequently coined 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 to its functions and processes (WHO, 2017). This definition places emphasis on the fact that sexual reproductive health pertains not only to the physical aspect that is mostly addressed but also how it affects an individual mentally and socially. It endorsed the rights of people to the capacity to reproduce and the choice to choose whether, when, and how frequently to do so. It further spelled out that people must be supported to exercise their rights to pleasant and safe sexual lives.

Approximately 16 million adolescents around the world become parents each year, with 95 percent of married girls aged 15 to 19 hailing from low- and middle-income countries (LMICs) (Ninsiima et al., 2021). According to the 2020 World Youth Report, there are 1.2 billion individuals aged 15 to 24 years, comprising 16 percent of the world's population. Currently, more than 60% of Africans are under the age of 25. Young people from Africa are predicted to make up 42% of the world's youth by 2030 (World Youth Report, 2018). This is a significant percentage, necessitating a great deal of attention to the requirements of young people in terms of SRH and a major improvement in their accessibility to these services.

The 1992 Constitution of Ghana established access to SRH services as a fundamental human right. Ghana has taken steps to ensure that it is a top priority since the early 1990s by putting initiatives, policies, regulations, and programs intended to increase access to SRH services into place (Gutmacher Institute, 2023). Efforts to increase access to SRH services started in 1969 when a national strategy was established to address the country's rapid population expansion and the impact it had on Ghana's socioeconomic development (Mprah et al., 2022). Despite international accords on young people's sexual and reproductive health and rights, access to and use of these services among young people/adolescents in low- and middle-income countries including Ghana remain poor, which is a major roadblock to progress in this field (Ninsiima et al., 2021).

SRH points to an array of health services including family planning, STI diagnosis, prevention and treatment including HIV/AIDS, counselling services and cervical cancer treatment, all of which aim at preventing problems during pregnancy and childbirth, unwanted pregnancies, unsafe abortions and STI complications (WHO, 2017). The majority of sub-Saharan African nations still have relatively low rates of youth SRH care services utilization. Therefore, they need information, products and services on sexual and reproductive health that are geared at young people due to their distinct needs and vulnerabilities. This would not only make it possible for them to receive SRH skills and knowledge, but it will also lessen the likelihood of experiencing sexual health hazards such as unintended pregnancies, early sexual encounters, and STDs like HIV/AIDS.

Generally speaking, young people frequently do not have access to health information and medical treatments. Young adulthood is a crucial stage of development that presents both opportunities and difficulties around the world. Access to healthcare services is one of these issues. For instance, research conducted by the Society of Adolescent Health and Medicine in the United States, drawing from over 40 publications, has revealed that young adults in the age group of 18 to 25 face reduced accessibility to healthcare services, and they exhibit higher mortality rates and a greater incidence of unintended pregnancies compared to both their younger counterparts (those aged 10 to 17 years)

and their older peers (those aged 26 to 30 years) (Baigry et al., 2023). Also, they have been identified with low sexual and reproductive health service utilization as a result of discomfort, fear of being sighted by parents and other people when they are in health care delivery facilities, and shame when seeking reproductive health care services (Mengistu & Melku, 2013). Most college students engage in sexual activity, making them more likely to have STDs and other problems with their reproductive systems. Reproductive health services are crucial and should be made available on campuses and in other health facilities in order to safeguard students from the effects of unsafe sex (Bediako et al, 2019).

This study therefore seeks to assess the Utilization of Sexual and Reproductive Health Services by students of the University of Ghana.

1.2 PROBLEM STATEMENT

According to the World Health Organization (WHO), SRH is a fundamental human right that should be accessible to all individuals, including university students (WHO, 2017). However, research has shown that university students face unique barriers in accessing SRH services, such as stigma, lack of confidentiality, and limited availability of services (DeSouza et al, 2018; Oyediran et al, 2015). Several studies have revealed that over 70% of college students engage in sexual activity, which increases their vulnerability to adverse sexual and reproductive health consequences (Bediako et al., 2021; Lungu et al, 2022). A study conducted by Darteh et al. (2021) indicated that access to SRH services among university students in Ghana is low, with only 43% of students reporting having access to these services. Globally, the incidence of unintended pregnancies among students in higher education institutions continues to rise annually, despite the widespread awareness of contraceptives and their availability to the general population (Gbagbo & Nkrumah, 2019).

In numerous African nations, the sexual and reproductive health (SRH) requirements of young people often receive inadequate attention and are underestimated, despite the evident demand for these services and their pressing importance. The African continent, with its vast population of approximately 1.2 billion people, has a substantial youth demographic, with the majority falling within the 15-24 years age group (Ninsiima et al., 2021).

Pregnancy, abortion, and sexually transmitted infections (including HIV) are the primary SRH risks that lead to adverse reproductive health outcomes in young adults compared to older individuals (Abdurahman et al., 2022). Annually, an estimated 376 million new cases of these four STIs - chlamydia, gonorrhoea, syphilis, and trichomoniasis - occur, even though they could have been easily prevented, with approximately 1 million new STI cases contracted each day. (WHO Factsheet, 2023). A quarter of pregnancies are unexpected or unplanned and 25 million unsafe abortions take place each year as well. Nearly 50% of these cases occur among young people aged 15-24 years who are mostly University students (Akazili et al., 2020).

Access to sexual reproductive health services is a critical component of healthcare for university students, including those enrolled by the university of Ghana. However, limited research exists on the extent to which University of Ghana students have access to SRH services and the drivers for utilizing such services. Conducting this research will increase awareness on the availability of services on campus and where to access them, thereby improving accessibility.

1.3 JUSTIFICATION

In 2020, there were just over 547 thousand Ghanaian students enrolled in higher education (Statista, 2022). The National Population Council estimates that young people in Ghana between the ages of 15 and 24 make up around 19% of the country's total population (National Population Council, 2019). This group is especially susceptible to problems with sexual and reproductive health, such as unwanted pregnancies, STDs, and unsafe abortions. University students are at a stage of life

where they are experimenting with their sexuality and may engage in risky sexual behaviours that are harmful to their health, such as having several partners or having unprotected sex. To avoid these health issues and encourage healthy behaviours, access to SRH services is essential.

Regardless of social, economic, or cultural background, everyone should have access to SRH services. Conducting research on access to SRH services by University of Ghana students will help to identify any disparities in access and highlight the need for targeted interventions to ensure that all students can access these services. This will help to guarantee that all students have access to these services.

Academic performance can be negatively impacted by poor health, particularly SRH problems. A student's physical discomfort may prevent them from concentrating in class or cause them to miss lessons or examinations. By ensuring that students have access to SRH services, universities can promote the health and well-being of their students, leading to better academic outcomes.

Moreover, there is a dearth of information on how Ghanaian university students utilize SRH services. The majority of studies on SRH services in Ghana concentrate on the general populace or particular subgroups like teenagers or women. Few studies have particularly looked at university students' access to SRH services. As a result, there is a knowledge gap that needs to be filled.

Findings from the research can be used to guide the creation of policies and initiatives that will increase University of Ghana students' utilisation of SRH services. This can entail promoting more funding for SRH services, educating the public, and raising awareness. Interventions can be created to specifically meet the requirements of university students by recognizing the access barriers. Interventions may, for instance, be aimed at raising public knowledge of the SRH services that are offered, lessening stigma associated with SRH-related problems, or funding SRH programs.

As a result, it is necessary to carry out a thorough research to evaluate students' access to SRH services, including service availability, usage, and access barriers.

1.4 RESEARCH QUESTIONS

- What are the existing SRH services available to students on campus?
- What are the SRH needs of students on campus?
- What is the level of utilization of SRH services among students on campus?
- What are the factors associated with utilization of SRH services by students on campus?

1.5 OBJECTIVES

1.5.1 General Objective

The main objective of the study is to assess utilization of sexual reproductive health services and associated factors among University of Ghana students

1.5.2 Specific Objectives

- To identify the existing sexual and reproductive health services available to students on campus
- To determine the SRH needs of students on campus.
- To examine the level of utilization of SRH services among students on campus.
- To assess the factors associated with utilization of SRH services by students on campus.

1.6 CONCEPTUAL FRAMEWORK

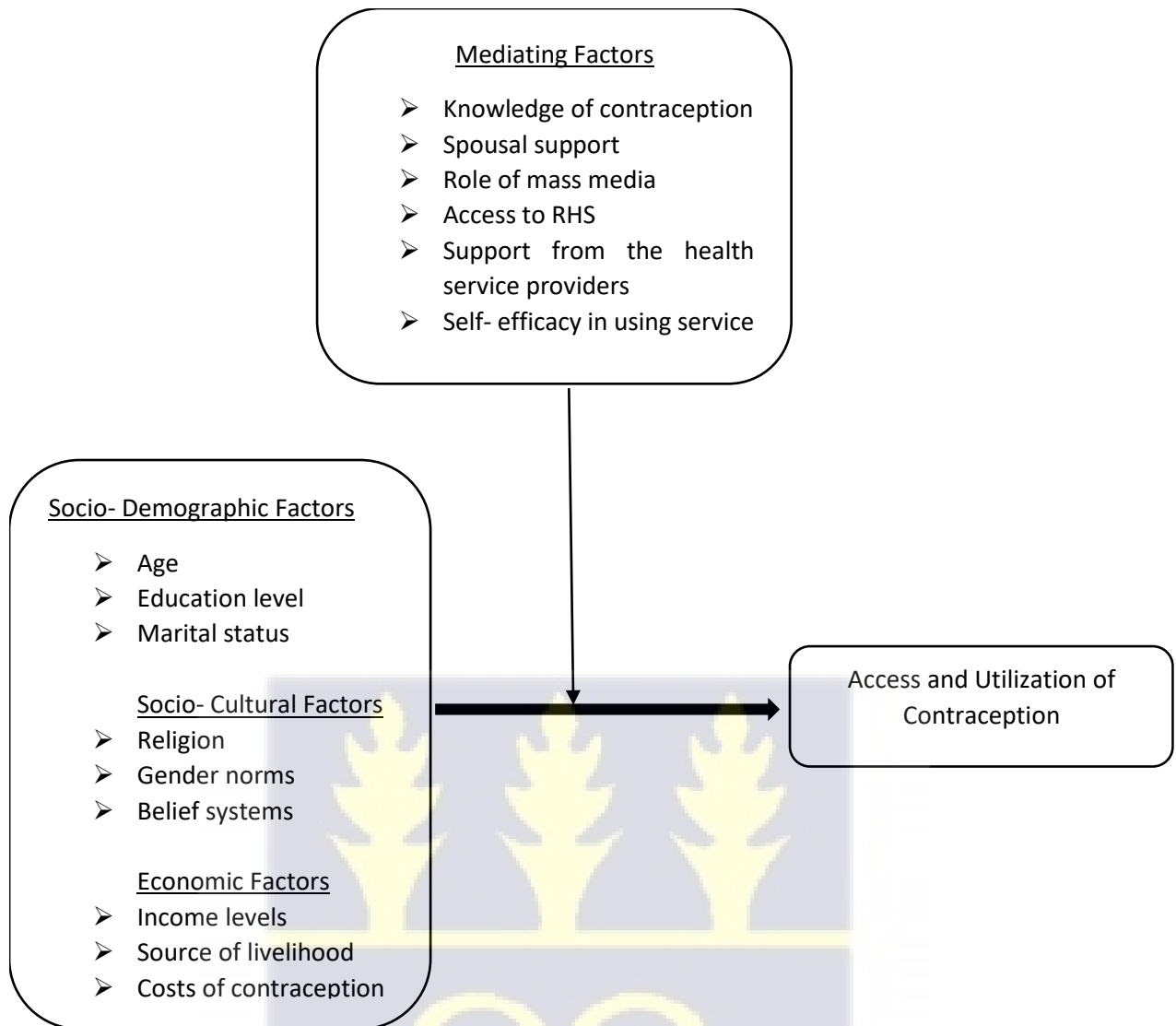


Figure 1: Conceptual framework adapted from (Nakirijja et al., 2018).

1.6.1 EXPLANATION OF CONCEPTUAL FRAMEWORK

There are various factors that influence the use of SRH services. They could be individual factors, hence personal factors which are usually as a result of socio-demography (age, level of education, family background, ethnicity, etc). These factors can be used to assess the influence they have on students' access to SRH services. Age is an essential socio-demographic factor to consider when studying access to SRH services among university students. Younger students may face more challenges in accessing SRH services due to stigma and lack of knowledge. In contrast, older students may have more experience and awareness of SRH services and be more likely to access

them. Gender is also an essential factor to consider since female students may have specific SRH needs, such as contraception and reproductive health services.

Ethnicity is another factor that can impact access to SRH services. Cultural beliefs and values can influence attitudes towards SRH, and some cultures may have taboos or restrictions around sexual activity, making it difficult for some students to access SRH services. Belief systems shape attitudes toward SRH services based on cultural, religious, and societal norms. Positive beliefs encourage utilization, while restrictive beliefs such as stigma around premarital sex or gender roles can deter individuals from seeking care. These factors influence decision-making, comfort levels, and overall access to SRH services.

Socioeconomic status is another crucial factor that can impact access to SRH services. Students from low-income backgrounds may face financial barriers to accessing SRH services, such as the cost of contraception or transportation to an off-campus clinic. On the other hand, students from higher-income families may have better access to private healthcare providers or may have more knowledge about SRH services due to their educational and cultural backgrounds.

Structural barriers to accessing sexual and reproductive health (SRH) services include restrictive regulations such as parental or partner consent requirements, long distances to facilities, high costs of services and transportation, long wait times, inconvenient service hours, lack of essential supplies, and concerns about privacy and confidentiality. Additionally, negative experiences shared by peers—such as receiving criticism from healthcare providers—further discourage young people from seeking SRH services.

Cultural barriers stem from societal stigma, restrictive norms around adolescent sexuality, and gender-based discrimination by families, communities, and service providers. Fear of judgment, shame, and being labeled promiscuous deter students from accessing services. Gender disparities further limit female students' agency due to societal taboos and power dynamics.

Also, the way in which students engage in sexual behaviour can impact their likelihood of seeking out SRH services. For example, students who are more sexually active may have a higher risk of contracting sexually transmitted infections (STIs) and may require more frequent testing and treatment. Additionally, students who are not using contraception may be at a higher risk of unintended pregnancy and may require counselling and access to contraception.

There are major barriers that impede utilization of SRH services by university students. The conceptual framework above deals with these barriers in terms of service accessibility where young people may not be able to access SRH services due to distance or inconvenient location of the service centre. Embarrassment, high cost of services, disapproval from parents or peers may also play a role while some may not even know where to access the service when needed.

Another barrier has to do with service utilization where the student fears being seen by others at the service centre. They fear people will have a negative perception of them. Self-efficacy refers to an individual's confidence in their ability to access and use SRH services. Higher self-efficacy enables young people to seek services despite barriers, while low self-efficacy may lead to hesitation due to fear of judgment or perceived inability to navigate healthcare systems.

Service quality which has a lot to do with the health worker also plays a major role. Some health workers tend to act hostile and may give discouraging remarks because the student is not married and is perceived to be a 'bad child'. Also, young people sometimes feel more comfortable discussing such sensitive topics with people around their age range, hence meeting an adult health worker or person of the opposite sex at the service centre may discourage them from speaking out.

Misconceptions about contraceptives also impede access to SRH services. False myths such as missing menstrual periods, less pleasure with condom use, infertility and condoms getting stuck in the vagina are just a few of the wrong information young people have concerning contraception and SRH services. In a nutshell, inaccurate or incomplete information prevents young people from accessing SRH services.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The topic of University of Ghana students' access to sexual and reproductive health services (SRHS) is examined in this research study. The promotion of students' general wellbeing and academic achievement is a major goal of SRHS. The capacity to access critical services, however, may be constrained by access barriers. This review examines existing literature on the factors affecting SRHS access among young people, especially university students. These include sociocultural factors, knowledge and awareness, cost, availability, and confidentiality. The review also highlights the importance of comprehensive SRHS education and the potential impact of improving access to these services for the student population. The findings from this review underscore the need for targeted interventions and policies that address the unique challenges faced by University of Ghana students in accessing SRHS.

2.2 Sexual Reproductive Health Services

Good SRH refers to an individual's ability to prevent unwanted pregnancies, unsafe abortions, viruses such as HIV/AIDS, and any form of sexual assault or coercion (Abdurahman et al., 2022). It includes the right to access to information and services to support these choices and promote SRH (Griffin, 2023). Young adults, who have specific sexual health requirements, require accurate information and prompt access to contraceptives to avoid the negative effects of unwanted pregnancies, abortion, childbirth, and untreated STIs (Baigry et al., 2023). Access to sexual and reproductive health services and maintaining one's SRH are fundamental human rights. Adolescent health in Africa can be improved by offering youth-friendly services, which combine the features of health facilities, service delivery techniques, and health services offered. The WHO standards state that services must meet certain criteria in order to be considered Youth Friendly Health

Services (YFHS), including being accessible, acceptable, equitable, suitable, and effective. They must also be gender-equitable and act as a conduit for access to FP and SRH (Ninsiima et al., 2021). According to target 3.7 of the sustainable development goals, everyone should have access to sexual and reproductive health care by the year 2030. Yet many LMICs still have limited access to SRH knowledge and services (Desrosiers et al., 2020). A study by Ravindran & Govender (2020) suggested that nearly all of the world's 4.3 billion people of reproductive age will experience insufficient sexual and reproductive health care throughout their lifetimes. A study conducted in a University in Ethiopia revealed almost half of the population had their first sexual experience at the age of 20-24, which is the age of university students (Tsegay et al., 2013). Access to safe, appropriate, and convenient forms of contraception is essential for undergraduate students, as 80% of them participate in sexual activity in higher education (Gbagbo & Nkrumah, 2019). Contraceptive use among Ghanaians has been thoroughly examined in national surveys on family planning, but little is known about its use among university students in Ghana (Gbagbo & Nkrumah, 2019).

Sexual and reproductive health (SRH) services are insufficiently accessible in many humanitarian circumstances and low-income countries (LMICs), particularly for youth (Desrosiers et al., 2020). In sub-Saharan Africa, adolescents face many serious SRH challenges, such as restricted access to youth-friendly services, information about family planning (FP), gender-based violence, unsafe abortion, and sexuality. Consequently, young people are more likely to participate in risky sexual behaviour, which raises their risk of HIV and STIs, causing them to become pregnant earlier than they should, and increases their vulnerability to delivery issues, all of which raise the chance that they will die or become disabled. (Ninsiima et al., 2021).

2.3 SRH Needs of Students on Campus

For university students navigating new experiences and relationships, SRH is a critical component of the overall health and well-being (Leekuan et al., 2022). In order to meet the specific SRH needs of university students, on-campus SRH services are crucial. Depending on aspects including gender, sexual orientation, and cultural background, university students' SRH needs can differ. However, access to contraception, STI testing and treatment, pregnancy testing and counselling, and education on healthy relationships and sexual health are some typical SRH needs among university students (Abdurahman et al., 2022) University students may also have particular SRH requirements, such as assistance for sexual assault victims and accessibility to safe abortion options where permitted. Understanding their specific needs is essential for designing effective interventions and support systems. Young people's sexual behaviours, such as unprotected sexual activity with multiple partners, douching, and drinking hot beverages to delay ovulation, can have negative effects, including the occurrence of unintended pregnancies and the spread of STIs (Ajayi et al., 2016). According to Gu et al. (2018), some young people who participate in coitus are either unable to get family planning services or do not know enough about contraception. According to the findings of a study conducted among female undergraduate students at Makerere University in Uganda, 66.3% of the students expressed a high need for SRH Education to help them overcome challenges such as finding reliable and accurate information, being empowered to make decisions, and receiving inadequate education from their parents and the university (Oonyu, 2019). This highlights how important SRH services are for young people and how they should be provided.

2.4 Factors Influencing Utilization of SRH Services

Despite being among the most susceptible to SRH risks, university students frequently lack access to resources, information, and services related to SRH (Nuwamanya & Babigumira, 2020). According to a review of the literature, they are more likely to get HIV, and the pressure to lead a

lavish lifestyle and have transactional sex increases this risk (Kilburn et al., 2018). University students must have access to SRH services in order to maintain good health and make informed decisions regarding their sexual and reproductive lives. Unfortunately, there are numerous barriers that prevent many students from using these services, resulting in lack of access which may harm their health and wellbeing.

Poor use of contraceptives in higher institutions is linked to a number of interrelated factors, from individual to institutional setbacks (Gbagbo & Nkrumah, 2019). A study by Ninsiima et al. (2021), categorized barriers to utilisation of Youth Friendly Reproductive Health Services (YFRHS) as structural, individual, socio-economic and socio-cultural.

Low self-efficacy and individual agency, limited ability to navigate internalized social and gender norms, incomplete or inaccurate knowledge of sexual and reproductive health (SRH), including myths and misconceptions about contraception, and limited access to information about available SRH services and where to seek them are examples of individual barriers (Ninsiima et al. 2021; Wakjira & Habedi, 2022). Many students believed that SRH was about sexual activity and the associated repercussions, according to a study by Nuwamanya et al. (2020). The most common perceived dangerous behaviour was having several sexual partners. The SRH services that are available to students on their campuses might not be known to them (Yared et al. 2017). By disseminating information about these services via their websites, social media pages, and other channels, universities can resolve this issue by raising awareness (Bokoh et al. 2022). Young individuals are also reluctant to use SRH services since they have little to no understanding of puberty and reproduction. When asked why they didn't use SRH services, young men and women cited a lack of knowledge on what to ask for or discuss with a healthcare professional (Baigry et al., 2023).

For the purposes of this study, structural barriers include rules and regulations requiring parental or partner consent, the distance to facilities, the cost of services and/or transportation, the length of wait times for services, the unfavourable hours, the absence of essentials at healthcare facilities, and a lack of privacy and confidentiality (Ninsiima et al., 2021; Wakjira & Habedi, 2022). Further discouraging their use of SRH services are stories from their peers or friends that they had received criticism or lectures from healthcare professionals (Baigry et al., 2023).

Cultural barriers include constrictive standards and stigma around adolescent and young people's sexuality, unfair or damaging gender norms, and prejudice and discrimination by communities, families, partners, and providers (Ninsiima et al., 2021). Barriers might be caused by social stigmas, cultural norms, and traditional views about sexuality and reproductive health (Wakjira & Habedi, 2022) Students may be deterred from obtaining SRHS if they are afraid of being judged, shunned, or called promiscuous. Access can also be impacted by gender disparities and power relations, with female students encountering particular difficulties because of societal taboos and their lack of agency (Dahal et al., 2022) Due to social views on sex and sexuality, some students can feel awkward using these services (Cassidy et al., 2018). Universities can endeavour to promote an accepting environment for all students, regardless of gender in order to solve this problem. In order to guarantee that staff and faculty are prepared to assist students who want these services, education and training to these groups should be offered.

The term "social economic barriers" refers to pressure that prevents persons from lower socioeconomic classes from moving up to receive better SRH like those from higher socioeconomic classes (Ninsiima et al., 2021). Many students may lack the funds necessary to pay for these services, especially if they lack or have insufficient insurance (Cassidy et al., 2018). Universities should take steps to make sure that their student health insurance policies cover SRH treatments

and also provide students who require these services with low-cost or no-cost options in order to solve these problems (Abdurahman et al., 2022).

In a study by Thongmixay et al. (2019), the primary barriers preventing young people from accessing sexual and reproductive health services were related to cognitive and psychosocial accessibility. Cognitive barriers included a lack of sexual health knowledge and unawareness of available services. Psychosocial barriers stemmed from feelings of shyness and embarrassment due to negative cultural perceptions of premarital sex, as well as concerns about confidentiality, particularly the fear that parents might discover their visits to public sexual and reproductive health facilities. Students may be discouraged from getting care if they have concerns about service confidentiality (Thongmixay et al., 2019). They may be reluctant to use SRHS because they are concerned about privacy violations, especially when seeking STI testing or talking about delicate issues like abortion or sexual assault.

Although significant progress has been made in reducing maternal mortality, addressing the demand for contraceptive services, and expanding access to HIV antiretroviral therapy, other critical health needs such as comprehensive sexuality education, gender-based violence, safe abortion services, treatment for sexually transmitted infections, and reproductive cancers have received less attention. (Ravindran & Govender, 2020). Access to SRH information and services can be made easier by a non-judgemental healthcare professional. Consequently, modifying laws to provide a customized, user-friendly SRH service will improve access to SRH services and contribute to a decrease in unintended pregnancies and STIs (Baigry et al., 2023).

When asked if they would recommend their relatives or friends to use family planning services at the university, around 69% of the students responded positively, indicating that the majority of them were committed to using family planning services if they were made available (Gbagbo et al., 2019).

CHAPTER THREE

METHODS

3.1 Introduction

This chapter describes the methods used for this research. It also goes into detail on the variables, data collection and analysis tools, sample methodology, study area, study design as well as ethical considerations.

3.2 Profile of Study Area

Accra, Ghana is home to the University of Ghana, a public university. Of the thirteen national public universities in Ghana, it is the biggest and oldest. Legon Campus, Korle-Bu Campus, Accra City Campus, Kumasi City Campus, and Takoradi City Campus are the five main campuses of the University of Ghana. This research will be conducted at the Legon Campus. The majority of the university's teaching and research is conducted on this main campus. Additionally, it houses the University's central administration. A total of 67,914 students are enrolled. Around 51.20% of students are male and 48.80% are female, which is the gender split of the student body. Ghanaians make up 98.99% of the student body as a whole, with foreigners making up the remaining 1.01%. While visiting, master's, and PhD students make up the remaining 12.78% of the overall student population, undergraduate students make up 83.80% of the total. Students in sub-degree programs make up 3.43% of the student population (University of Ghana, 2022). The University provides both residential and non-residential facilities to the students. There are 14 halls of residence and 2 hostels available to all students namely Commonwealth Hall, Volta Hall, Akuafu hall, Legon hall, Mensah Sarbah Hall, Alexander Kwabong Hall, Hilla Limann hall, Elizabeth Sey Hall and Jean Nelson Hall. The others are the Jubilee Hall, Bani Hall, Evandy hall, James Topp Nelson Yankah Hall, African Union Hall and the International Students hostel.

3.3 Study Design

The study used a cross-sectional design with quantitative data collection methods to determine the utilization of sexual and reproductive health services by University of Ghana Students.

3.4 Study Population

The study population included undergraduate students of the University within the ages of 15 to 25 years and above who were resident in any of the halls on campus.

3.5 Inclusion Criteria

Male and female undergraduate students who were resident on campus.

Male and female undergraduate students who fell within the age ranges required for the study.

3.6 Exclusion Criteria

International or foreign undergraduate students who were resident on campus.

Undergraduate students who are supposed to be resident on campus but were off campus at the time of data collection.

3.7 Variables

The study variables were made up of dependent and independent variables.

3.7.1 Dependent Variable

The dependent variable in this study was Utilization of Sexual and Reproductive Health services.

This was measured using a binary scale of if student had utilized SRH or not.

3.7.2 Independent Variables

The independent variables in this study were socio-demographic factors (age, religion, ethnicity, socio economic status, etc).

These factors can be used to assess the influence they have on students' use of SRH services.

Age was categorised by 15-19, 20-24 and 25 years and above.

Religion was measured by whether the respondent is Christian, Muslim, belonging to a traditional religion or any other.

Ethnicity was defined as follows; Akan, Ga, Fante, Ewe, Northerner and any other ethnicity.

Socio- economic status was determined by the pocket money one receives monthly as well as money gained from any business ventures while in school. Relationship status was determined by whether a respondent is in a sexual or non- sexual relationship or is single or married.

3.8 Sample Size Determination

The sample size for the study was calculated using the Cochran's formula.

$$n = \frac{z^2 \times p(1-p)}{d^2} = \frac{1.96^2 \times 0.50(1-0.50)}{0.05^2} = 384.16 = 385$$

where n = desired sample size

Z= reliability co-efficient for 95% confidence level usually set at 1.96

P= proportion in the target population estimated to have access to SRH services

MOE = margin of error estimated at 5%

3.9 Sample size adjustment

Adding 15% to make up for non-response and wrongly filled or incomplete questionnaire gave a total sample size of 443.

Thus, a total of 443 respondents were selected from among the undergraduate students of the University of Ghana.

3.11 Data Collection Instrument

A pretested structured questionnaire was used as the data collection instrument for the study. Questions asked included general socio-demographic characteristics, knowledge and perceptions about the use of SRH services, general information on reproductive history and awareness of health facilities that provide SRH services. Informed consent was obtained from participants and questionnaires were administered in the English language.

3.12 Sampling Technique and Procedure

The sampling methodology employed a multistage cluster sampling approach, with probabilities proportional to the size of each cluster. Cluster size was determined based on the number of students in each hall. Initially, a lottery method was used to randomly select four halls out of the 12 mixed halls: Mensah Sarbah Hall, African Union Hall, Elizabeth Sey Hall, and Jean Nelson Hall. The total sample size for the four halls was calculated as 7800.

For each hall, the sample size was determined as follows:

Mensah Sarbah Hall (HALL A): $(2300/7800) \times 443 = 131$ participants

African Union Hall (HALL B): $(2100/7800) \times 443 = 119$ participants

Jean Nelson Hall (HALL C): $(1500/7800) \times 443 = 85$ participants

Elizabeth Sey Hall (HALL D): $(1900/7800) \times 443 = 108$ participants

In the second stage, room numbers were systematically selected from the chosen wings and floors within each hall. Sampling intervals were computed for each hall, and every second room was chosen.

In the third stage, one student was randomly selected from each chosen room. If a student in the selected room declined participation or did not meet the eligibility criteria, the next room was approached for selection.

3.13 Data Processing

The selected halls were visited and individuals were interviewed to ensure they fell within the inclusion criteria. The link to the form was then sent to them via WhatsApp, where they subsequently forwarded them to the various hall platforms to be filled by students who met the inclusion criteria and consented to partaking in the study. Data was collected via google forms, cleaned, coded and exported into Microsoft Excel. It was then exported to STATA (statistical analysis software) version 17 for processing.

3.14 Data Analysis

Descriptive statistics (frequencies and percentages) were used to describe demographic characteristics of the study participants with 95% confidence intervals. Graphs, tables and bar charts were used to provide visual representation of the results of the analysis. A test was said to be significant if the p -value < 0.05 . Chi-square tests were conducted to determine association between utilization of SRH services and socio-demographic and economic variables. A univariate, bivariate and multivariate logistic regression model was used to measure the strength of association between variables.

3.15 Data Quality Control

Two research assistants were trained on how to effectively administer questionnaires and obtain information from participants. This was done by ensuring respondents fit the eligibility criteria, fully understood and agreed to the consent form and received guidance as to how to fill questionnaires. They also followed up on respondents to ensure questionnaires were completely and correctly filled. Questionnaires were completed online by respondents as it was a virtual form.

3.16 Ethical Considerations

The study protocol was approved by the Institutional Review Board of the Noguchi Memorial Institute for Medical Research for review and ethical approval was obtained with protocol approval number (015/23-24) before data collection began. Permission to conduct this research was obtained from the School of Public Health (SPH) University of Ghana. Permission was obtained from hall management/senior tutors of the various hostels on campus. This step was essential to collaborate with the university and conduct research within its premises. Since the research involved interacting with students within their living environment, obtaining permission from hostel authorities was necessary to ensure proper coordination and adherence to any hostel-specific guidelines.

Students who met the inclusion criteria were required to read and agree to an informed written consent before partaking in the study. Student eligibility was determined by requesting for and taking a look at student identification cards to confirm the level of study. The objective and the rationale of this study was discussed with each of the respondents, client privacy and confidentiality were assured. Thereafter, respondents were given access to the link to complete the survey. Confidentiality measures were in place to prevent unauthorized access to participants' personal information. Emails of students were not collected to ensure anonymity. There were no potential risks associated with the study and this was explained to participants. Participants had the opportunity to ask questions and clarify any doubts they had before voluntarily agreeing to participate.

Data collected were known to the researcher alone and was used for purposes related to the research work only. Participants had the freedom to choose whether or not to take part. They did not face any negative consequences or penalties in the event where they decided not to participate or withdraw from the study. Participants had the chance to opt out at any time during the study.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the results obtained from gathering data from study participants. The results were presented in line with the objectives of the study. Firstly, the socio-demographic and economic characteristics of participants are presented. In addition, the SRH status and experiences of participants were also presented in this chapter. Furthermore, the awareness and perception of participants towards SRH services, level of utilization of SRH services and factors associated and level of utilization were also highlighted in this chapter. The chapter also highlights the barriers to the utilization of SRH services.

4.2 Socio-demographic and Economic Characteristics of Participants

Out of the 443 questionnaires that were distributed, 351 were retrieved and used for analysis due to non-responses and incompletely filled items resulting in a response rate of 79.2%. Gender distribution among participants showed more than half of the sample were male (n=189, 53.8%) while 162 (46.2%) were female. In terms of age, majority of the participants fell within the 20–24 years range (n=217, 42.7%). Different academic levels were reported among participants, with level 200 having the highest representation (n=106, 30.6%), followed by level 400 (n=97, 27.6%). The College of Basic and Applied Sciences (CBAS) held the highest representation (n=111, 31.6%) followed by the College of Humanities (n=85, 24.2%). Christianity emerged as the predominant religion among participants (n=212, 60.4%) and the Akan ethnicity notably dominated among participants (n=150, 42.7%). Regarding relationship status, majority of the participants reported being in a sexual relationship (n=139, 39.6%) while 124 (35.3%) identified as single. The economic information of the participants also revealed diverse patterns in their financial and economic

engagement. In terms of monthly pocket money, a substantial number of participants reported receiving 500 – 1000¢ monthly (n=127, 36.2%) followed by 300 – 500¢ (n=108, 30.7%). One hundred and fifteen (31.6%) participants reported that they were engaged in some forms of economic activities or side businesses on campus. Among those who engaged in side businesses, the majority (n=51, 44.3%) earned above 1000¢ from their side business per month. Details of the socio-demographic and economic characteristics of participants are presented in table 4.1.

Table 4.1 Socio-demographic and economic characteristics of participants.

Variable	Freq. (N=351)	Percent
Gender		
Male	189	53.8
Female	162	46.2
Age		
Under 20 years	101	28.8
20 – 24 years	217	42.7
25 years and above	33	28.5
Level		
Level 100	58	16.5
Level 200	106	30.6
Level 300	90	25.6
Level 400	97	27.6
College		
College of Humanities	85	24.2
CBAS	111	31.6
College of Health	79	22.5
College of Education	76	21.7
Religion		
Christian	212	60.4
Muslim	94	26.8

Traditional	35	9.9
Others	10	2.8
Ethnicity		
Akan	150	42.7
Ga	73	20.7
Ewe	58	16.5
Northerner	68	19.3
Guan	2	0.5
Relationship Status		
Single	124	35.3
Married	17	4.8
In a sexual relationship	139	39.6
In a non-sexual relationship	71	20.3
Monthly pocket money		
GHS 100 – 300	41	11.7
GHS 300 – 500	108	30.7
GHS 500 – 1000	127	36.2
Above GHS 1000	75	21.3
Currently engaged in any economic activity/ side business?		
Yes	115	31.6
No	236	67.2
Monthly Income from this business		
Less than GHS 100		
GHS 100 – 500	11	9.5
GHS 500 – 1000	33	28.7
Above GHS 1000	29	25.0
	51	44.3

4.3 Sexual and reproductive health status of participants

Majority of the study participants (n = 225, 64.1%, 95% CI: 59.1%–69.1%) reported engaging in sexual activity. Amongst them, a greater number started engaging in sexual activity between the ages of 15 and 19 years, with the largest percentage falling in the under 20 years category (n=110, 48.9%). Regarding recent sexual activity, 54 (42.8%) participants reported having sex over a month ago, while 50 (39.7%) engaged in sex within the past month. Regarding protection during the last sexual encounter, there was an almost equal split, with 114 (50.2%) participants not using protection and 113 (49.8%) participants reporting that they did. In terms of sexual partners, 123 (55.4%) participants reported having sex with their main partner, while 97 (43.7%) indicated that they had more than one sexual partner since they first became sexually active.

Table 4.2 Sexual reproductive health status of participants

Item	Freq.	Percent
Ever had sex		
Yes	225	64.1
No	126	35.9
Age at sexual debut		
Under 20 years	110	48.9
20- 24 years	98	43.5
25 years and above	17	7.5
Most recent sexual engagement		
I do not remember	26	20.6
Over a month ago	54	42.8
Within the past month	50	39.7
Within the past week	42	33.3
Within the week	52	41.2
Usage of protection during last sexual engagement		
Yes	113	49.8

No	114	50.2
Relationship with sexual partner		
Main partner	123	55.4
A friend	65	29.3
A random person	25	11.2
An elderly person I know	9	4.1
Number of sexual partners since debut		
I don't remember	14	6.3
Just one	80	36.0
More than 1 but less than 5	97	43.7
More than 5	31	13.9

4.4 Sexual reproductive health experiences of participants

Seventy-one (20.2%) of the participants reported that they had been forced to have sex before with most cases (n=31, 43.6%) involving a friend. Additionally, majority (n=182, 51.8%) have had unprotected sex, and 55 (15.6%) have experienced pregnancy or impregnated someone. A smaller but significant percentage (n=40, 11.4%) have had a sexually transmitted infection (STI), and 22 (10.7%) have undergone an abortion.

Table 4.3 Sexual reproductive health experiences of participants

Item	Freq.	Percent
Ever been forced to have sex		
Yes	71	20.2
No	280	79.8
Person who forced sex		
My partner	16	22.5
A friend	31	43.6
A random person	9	12.7

An elderly person I know	15	21.1
Ever had unprotected sex		
Yes	182	51.8
No	169	48.1
Ever been pregnant or gotten someone pregnant		
Yes	55	15.7
No	296	84.3
Ever had a Sexually Transmitted Infection (STI)		
Yes	40	11.4
No	311	88.6
Ever had an abortion		
Yes	22	10.7
No	184	89.3

4.5 Participants' Perception of Sexual Reproductive Health (SRH)

A significant majority (n=229, 65.2%) considered SRH services for students as very important. Regarding comfort levels in discussing SRH topics, 170(48.4%) reported feeling very comfortable discussing SRH topics with peers. The comfort level diminishes when it comes to discussing SRH topics with parents or family members, with a proportion of participants reporting feeling very uncomfortable (n=101, 28.8%). Furthermore, participants generally expressed high comfort levels (n=208, 59.2%) in discussing SRH topics with health professionals. However, (40.7%) remains hesitant discussing SRH topics with health professionals, citing reasons such, lack of trust in health providers (n=54, 37.7%), fear of breach of confidentiality (n=57, 39.8%), and fear of judgment from health providers (n=54, 37.7%). Details of the perception of participants on RHS are shown in Table 4.4.

Table 4.4 Participants Perception of Sexual Reproductive Health

Item	Freq.	Percent
Importance of SRH services for students		
Very important	229	65.2
Somewhat important	64	18.2
Neutral	40	11.4
Somewhat unimportant	9	2.5
Very unimportant	9	2.5
Comfortability discussing SRH topics with peers		
Very comfortable	170	48.4
Somewhat comfortable	87	24.8
Neutral	60	17.1
Somewhat uncomfortable	21	6.0
Very uncomfortable	13	3.7
Comfortability discussing SRH topics with parents or family members		
Very comfortable	58	16.5
Somewhat comfortable	66	18.8
Neutral	76	21.6
Somewhat uncomfortable	50	14.2
Very uncomfortable	101	28.8
Comfortability discussing SRH topics with health professionals.		
Yes	208	59.3
No	143	40.7
Reasons for not discussing SRH with health professionals		
Cultural/Religious Beliefs	46	32.1
Lack of trust in health providers	54	37.7
Fear of breach of confidentiality	57	39.8
Fear of judgement from health providers	54	37.7

4.6 Awareness of SRH services on campus

Majority of the participants, (n=252, 76.8%), reported being aware of SRH services on campus. Among those informed, friends played a significant role, with 167 (39.2%) of participants learning about SRH services through peer networks. Social media emerged as the second substantial source of information, contributing to the awareness among 68 (15.9%) participants. Other sources included medical examinations (6.1%), posters (7.9%), the student clinic (4.5%), and scholastic orientations (3.1%) as illustrated in Figure 4.1.

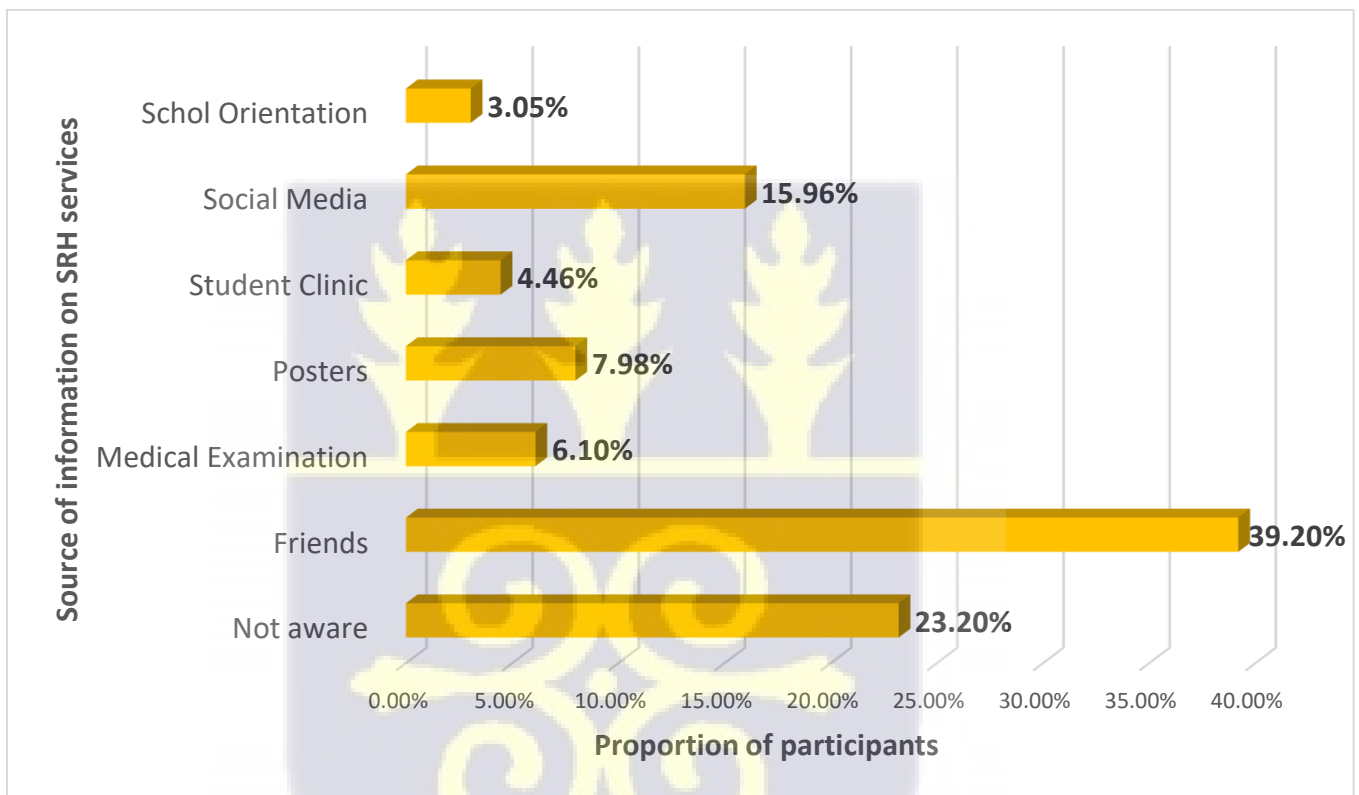


Figure 4.1: Source of information on SRH services on campus

4.7 Utilization of Reproductive Health Services by participants

The majority of participants (n=222, 63.2%) reported that they have never accessed reproductive health services on campus. Among those that accessed SRH services, contraceptives were the most

commonly accessed service (n=156, 73.0%). Among the contraceptives, condoms were the most frequent accessed by participants (n=96, 44.6%). Breast examination and STI testing/treatment are accessed by 10 (7.4%) of participants each. Details of the SRH services accessed by participants is shown in figure 4.2. Majority of the participants (n=48, 27.4%) accessed the services at least once per semester and 41 (23.4%) accessed services at least twice in a semester. In terms of the locations where participants accessed these services, on-campus pharmacies emerged as a primary resource, with 90 (25.6%) utilizing them followed by off-campus pharmacies (n=58, 16.5%). Interestingly the university hospital and student clinic were not commonly used to access SRH services.

Table 4.5: Utilization of Reproductive Health Services by participants

Item	Freq.	Percent
Ever use of SRH services on campus		
Yes	128	36.47
No	222	63.25
Frequency of SRH services utilization		
At least once per semester	48	27.43
At least once in a year	16	9.14
At least twice in a semester	41	23.43
Just once	31	17.71
Never	39	22.29
Point of SRH service		
Off campus Pharmacies	58	16.5
On campus Pharmacies	90	25.6
Student's Clinic	10	2.8
University Hospital	31	8.8

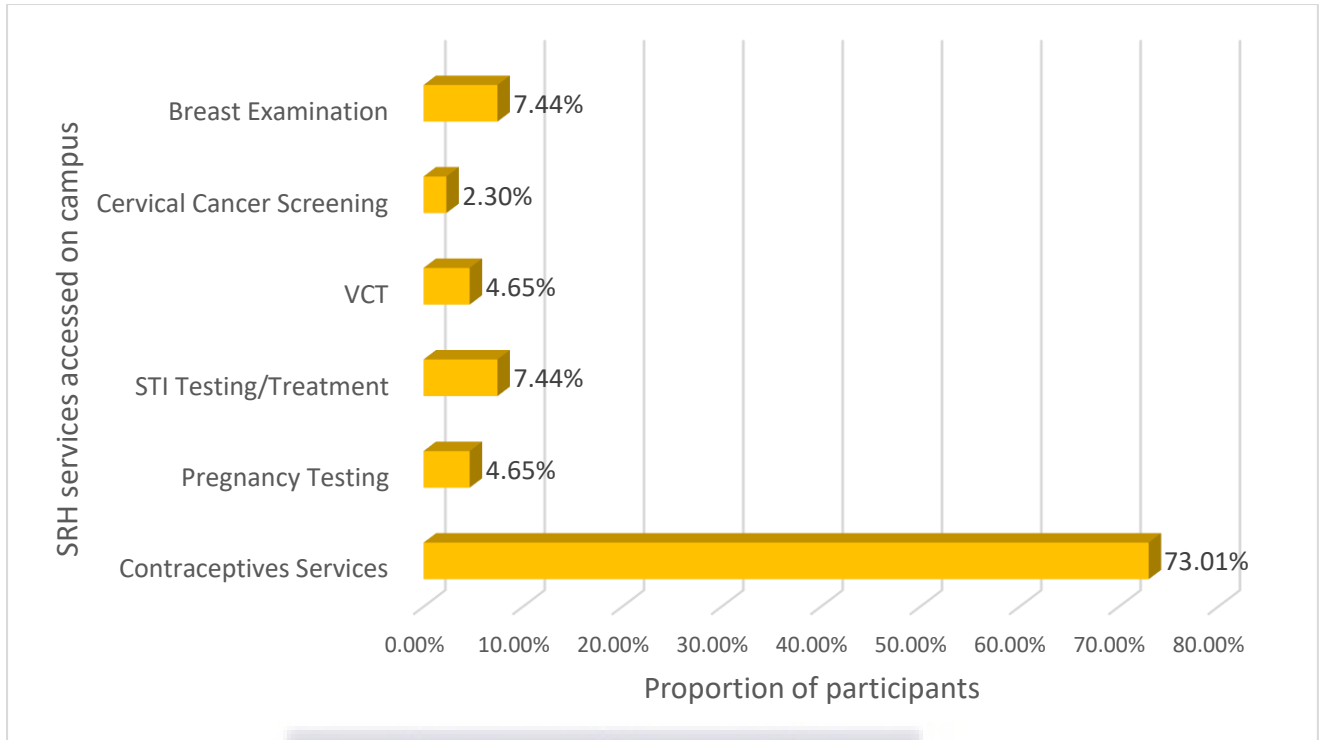


Figure 4.2: Common SRH services accessed on campus

4.8 Factors influencing the utilization of SRH services on campus

The data on factors influencing the utilization of sexual and reproductive health (SRH) services on the University of Ghana campus reveals insights into the ease of access, satisfaction levels, and potential barriers faced by participants. Majority, (n=101,75.9%), found it either very easy or somewhat easy to access SRH services on campus. In terms of satisfaction, a substantial portion of participants (n=39, 21.2%) reported being very satisfied and (n=55, 29.9%) being somewhat satisfied with the quality of SRH services on campus. In addition, majority of the participants (n=273, 77.8%) reported that they did not face any barriers in accessing SRH services on campus. However, the most prevalent barrier reported was the lack of information about services, with 34 (35.8%) of participants indicating this challenge, followed by stigma and discrimination from health providers (n=26, 27.4%). Other barriers included long waiting times (n=9, 9.5%), fear of myths associated with SRH services (n=7, 7.4%), and stigma and discrimination from friends (n=7, 7.4%).

Table 4.6: Factors influencing the utilization of SRH services on campus

Item	Freq.	Percent
Ease in accessing SRH services at the University of Ghana		
Very easy		
Somewhat easy	50	37.6
Neutral	51	38.3
Somewhat difficult	24	18.1
Very difficult	5	3.8
	3	2.3
Satisfaction with quality of SRH services on campus		
Very satisfied		
Somewhat satisfied	39	21.2
Neutral	55	29.9
Somewhat Dissatisfied	81	44.1
Very dissatisfied	5	2.7
	4	2.2
Ever faced any barriers in accessing SRH services on campus		
Yes	77	21.9
No	273	77.8
Barriers faced in accessing SRH services on campus		
Stigma and discrimination from health providers	26	27.4
Stigma and discrimination from friends	7	7.4
Long waiting times	9	9.5
Lack of information about services	34	35.8
Inadequate funding for services	11	12.6
Fear of myth associated with SRH services	7	7.4

4.9 SRH service needs of participants

A significant majority (n=248, 70.6%) of participants, expressed a desire for some SRH services to be made more available on campus. In contrast, 103 (29.4%) of participants did not identify a

specific need for additional SRH services on campus. Figure 4.4 therefore revealed participants distinct preferences for Sexual and Reproductive Health (SRH) services on campus. A significant percentage of respondents express a desire for STI testing and treatment services (n=157, 23.53%), followed by voluntary counselling and testing (n=135, 20.24%) and breast examination services (n=107, 16.04%). Cervical cancer screening (n=86, 12.89%), pregnancy testing (n=85, 12.74%), and contraceptive services (n=70, 10.50%) were also identified as important needs. Abortion services have the lowest percentage of respondents indicating a need (n=27, 4.07%).

Table 4.7: SRH services needed by participants on campus

Item	Freq.	Percent
Need of Specific SRH services on campus		
Yes	248	70.6
No	103	29.4

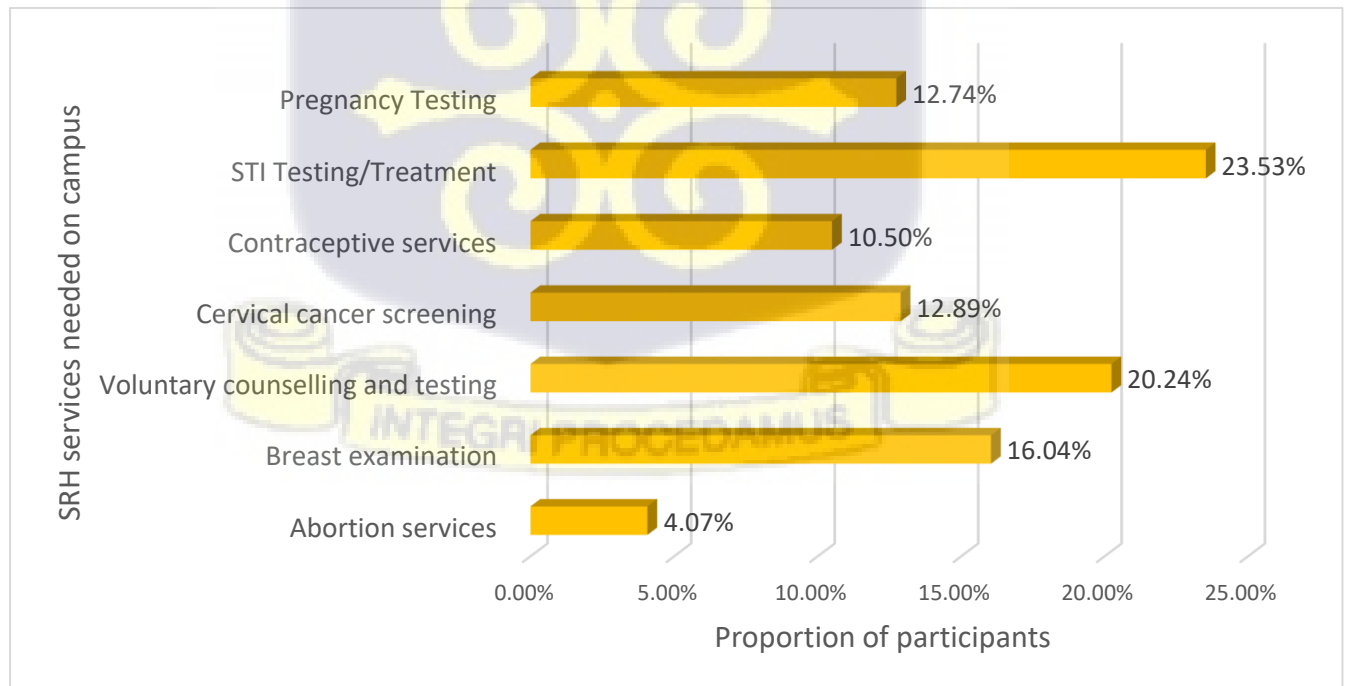


Figure 4.3: SRH services needed by participants on campus

4.10 Association Between Socio-demographic and economic characteristics of participants and Utilization

Of the 350 participants, 36.47% availed themselves of SRH services. Age was significantly associated with utilization ($p = 0.001$), with the highest uptake among those aged 20–24 years (43.98%) and the lowest among those under 20 years (21.78%). Level of study also showed a significant association ($p = 0.001$), with Level 300 students having the highest utilization (48.89%) and Level 100 students the lowest (15.52%). Relationship status was strongly associated with utilization ($p = 0.0001$), as those in sexual relationships had the highest uptake (65.94%), while singles (17.89%) and those in non-sexual relationships (16.67%) had lower usage. Sex, college affiliation, and monthly pocket money were not significantly associated with SRH service utilization. Below in table 4.8 are the results.

Table 4.8: Association Between Socio-demographic and economic characteristics of participants and Utilization

Characteristics	Total [n=350]	Utilization of SRH Services		P value
		Yes [n=128], n (%)	No [n=222], n (%)	
Age				0.001
Under 20 years	101	22 (21.78)	79 (78.22)	
20 – 24 years	216	95 (43.98)	121 (56.02)	
25 years and above	33	11 (33.33)	22 (66.67)	
Sex				0.64
Male	161	67 (35.45)	122 (64.55)	
Female	189	61 (37.89)	100 (62.11)	
College				0.79

College of Humanities	85	35 (41.18)	50 (58.82)	
CBAS	110	38 (34.55)	72 (65.45)	
College of Health	79	28 (35.44)	51 (64.56)	
College of Education	76	27 (35.53)	49 (64.47)	
Level				0.001
Level 100	58	9 (15.52)	49 (84.48)	
Level 200	106	40 (37.74)	66 (62.26)	
Level 300	90	44 (48.89)	46 (51.11)	
Level 400	96	35 (36.46)	61 (63.54)	
Relationship Status				0.0001
Single	123	22 (17.89)	101 (82.11)	
Married	17	3 (17.65)	14 (82.35)	
In a sexual relationship	138	91 (65.94)	47 (34.06)	
In a non-sexual relationship	72	12 (16.67)	60 (83.33)	
Monthly pocket money				0.41
GHS 100 – 300	41	11 (26.83)	30 (73.17)	
GHS 300 – 500	107	41 (38.32)	66 (61.68)	
GHS 500 – 1000	127	51 (40.16)	76 (59.84)	
Above GHS 1000	75	25 (33.33)	50 (66.67)	

4.11 Association Between Sexual and reproductive health status and experiences of participants and Utilization of SRH Services

Among the participants, those who had ever had sex were significantly more likely to utilize SRH services (54.02%) compared to those who had not (5.56%) ($p = 0.0001$). The nature of the relationship with a sexual partner also influenced utilization ($p = 0.03$), with the highest uptake among those whose partner was their significant other (61.48%). Experiences such as being forced to have sex ($p = 0.001$), ever being pregnant or getting someone pregnant ($p = 0.0001$), having had an STI ($p = 0.0001$), and having had an abortion ($p = 0.0001$) were all significantly associated with

higher SRH service utilization. However, the use of protection during the last sexual encounter was not significantly related to service utilization ($p = 0.79$). Table 4.9 below gives a summary of findings.

Table 4.9 Association Between Sexual and reproductive health status and experiences of participants and Utilization of SRH Services

Characteristics	Total [n]	Utilization of SRH Services		<i>P value</i>
		Yes n (%)	No n (%)	
Ever had sex				0.0001
Yes	224	121 (54.02)	103 (45.98)	
No	126	7 (5.56)	119 (94.44)	
Usage of protection during the last sexual engagement				0.79
Yes	113	59 (52.21)	54 (47.79)	
No	113	61 (53.98)	52 (46.02)	
Relationship with a sexual partner				0.03
A friend	65	31 (47.69)	34 (52.31)	
A random person	25	8 (32.00)	17 (68.00)	
An elderly person I know	9	5 (55.56)	4 (44.44)	
My partner	122	75 (61.48)	47 (38.52)	
Ever been forced to have sex				0.001
Yes	71	38 (53.52)	33 (46.48)	
No	279	90 (32.26)	189 (67.74)	
Ever been pregnant or gotten someone pregnant				0.0001
Yes	54	33 (61.11)	21 (38.89)	
No	296	95 (32.09)	201 (67.91)	
Ever had a Sexually Transmitted Infection (STI)				0.0001
Yes	40	30 (75.00)	10 (25.00)	
No	310	98 (31.61)	212 (68.39)	
Ever had an abortion				0.0001
Yes	21	18 (85.71)	3 (14.29)	
No	184	61 (33.15)	123 (66.85)	

4.12 Determinants of Sexual and Reproductive Health Service Utilization

The analysis identified several factors influencing SRH service utilization. In the crude analysis, being aged 20–24 years (COR = 2.82, 95% CI: 1.64–4.86, $p = 0.00$), being in a sexual relationship (COR = 8.89, 95% CI: 4.98–15.88, $p = 0.00$), and having a history of STI (COR = 6.49, 95% CI: 3.05–13.80, $p = 0.00$) or abortion (COR = 12.10, 95% CI: 3.43–42.66, $p = 0.00$) were strongly associated with higher utilization. However, after adjusting for age, level, relationship status, ever been forced to have sex, ever having an abortion and ever having sex, only a history of STI remained significant (AOR = 3.38, 95% CI: 0.99–11.53, $p = 0.04$). Notably, individuals who had never had sex were significantly less likely to utilize SRH services (AOR = 0.08, 95% CI: 0.02–0.32, $p = 0.00$). Other factors, such as education level, relationship status, and pregnancy history, were not significant in the adjusted model.

Table 4.10 Factors Influencing Utilization of SRH Services

<i>Utilization of SRH Services</i>	COR (95% CI)	P-value	AOR (95% CI)	P-value
Age				
Under 20 years	1*			
20 – 24 years	2.82 (1.64-4.86)	0.00	1.86 (0.53-6.51)	0.33
25 years and above	1.80 (0.76-4.26)	0.18	1.72 (0.33-9.05)	0.52
Level				
Level 100	1*			
Level 200	3.30 (1.46-7.43)	0.00	3.18 (0.73-13.80)	0.12
Level 300	5.21 (2.29-11.85)	0.00	4.42 (0.97-20.30)	0.06
Level 400	3.12 (1.37-7.12)	0.01	2.56 (0.56-11.64)	0.22
Relationship Status				
Single	1*			
Married	0.98 (0.26-3.72)	0.98	0.24 (0.03-1.84)	0.17
In a sexual relationship	8.89 (4.98-15.88)	0.00	1.42 (0.53-3.81)	0.49
In a non-sexual relationship	0.92 (0.42-1.99)	0.83	0.38 (0.10-1.41)	0.15
Ever had sex				
Yes	1*			
No	0.05 (0.02-0.11)	0.00	0.08 (0.02-0.32)	0.00
Ever been forced to have sex				
No	1*			
Yes	2.42 (1.42-4.12)	0.001	1.29 (0.53-3.12)	0.58
Ever been pregnant or				

gotten someone pregnant				
No	1*			
Yes	3.32 (1.83-6.05)	0.00	0.97 (0.25-3.74)	0.97
Ever had a Sexually Transmitted Infection (STI)				
No	1*			
Yes	6.49 (3.05-13.80)	0.00	3.38 (0.99-11.53)	0.04
Ever had an abortion				
No	1*			
Yes	12.10 (3.43-42.66)	0.00	4.67 (0.72-30.58)	0.10

**Reference group, Adjusted odds ratios (AORs) were derived from a multivariable logistic*

regression model that included the following covariates: age, level, relationship status, ever had sex, ever been forced to have sex, ever been pregnant or gotten someone pregnant, ever had a sexually transmitted infection (STI), and ever had an abortion.

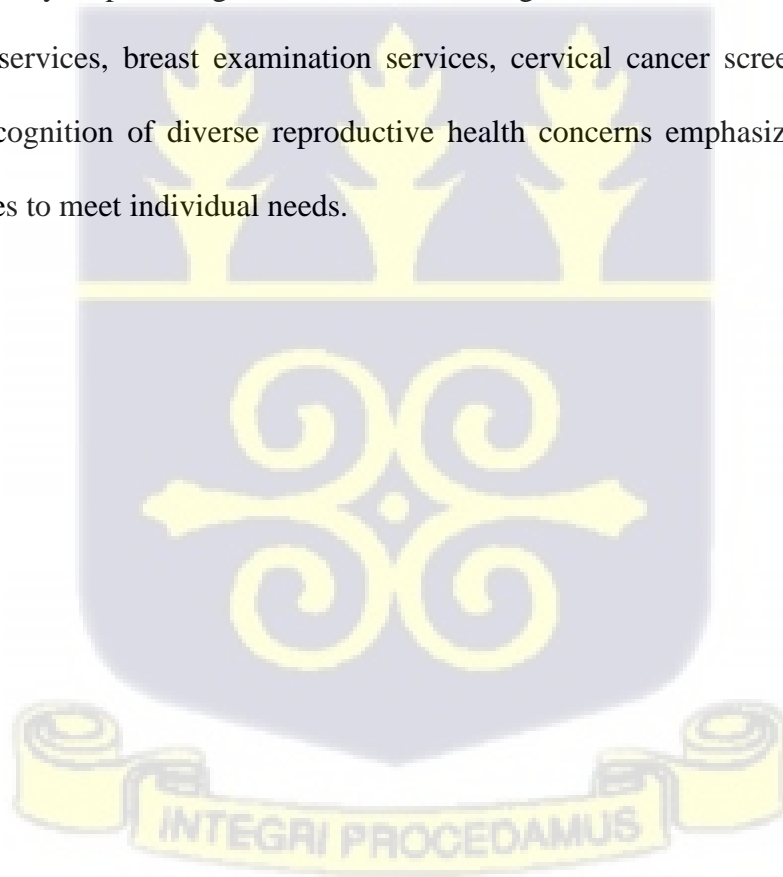
4.13 Summary

This study offered a comprehensive exploration of the socio-economic characteristics, sexual reproductive health (SRH) status, and experiences of university students, unravelling a nuanced diversity of perceptions, behaviours, and needs. In examining the socio-demographic and socio-economic information of students, the study uncovered a predominant concentration of participants within the 20–24 years age range, reflecting the significant representation of young adults. Financially, a noteworthy portion reported good support, receiving between 500 – 1000 GHS monthly, although a considerable number managed with limited resources.

Exploring the sexual reproductive health status and experiences of students revealed a diverse landscape. A substantial proportion reported never engaging in sexual activity, aligning with global trends of abstinence or delayed sexual initiation among university students. However, for those who did, an active sexual life was evident, with concerns raised about the inconsistent use of protective measures during sexual encounters. Students' perception and awareness of Sexual Reproductive Health (SRH) underscored the importance of peer and professional support. While the majority

considered SRH services important and felt comfortable discussing SRH topics with peers and health professionals, discomfort emerged in discussions with parents.

The utilization of reproductive health services on campus revealed a notable gap, with a majority of participants never accessing such services. Barriers included lack of information, stigma and discrimination, long waiting times, and fear of myths associated with SRH services. Factors influencing service utilization highlighted the importance of perceived accessibility, with the majority finding it easy to access SRH services on campus. However, significant barriers such as lack of information and stigma and discrimination underscored the complexity of the issue. Examining SRH needs, participants expressed a strong desire for the expansion of services on campus, particularly emphasizing the need for STI testing and treatment, voluntary counselling and testing (VCT) services, breast examination services, cervical cancer screening, and pregnancy testing. The recognition of diverse reproductive health concerns emphasizes the importance of tailoring services to meet individual needs.



CHAPTER FIVE

DISCUSSIONS

5.1 Introduction

This chapter presents the discussion of the results obtained in this study. The discussion was done by comparing the results of the current study with other previous literature highlighting similarities and contrasting findings. Furthermore, the discussions in the light of relevant literature allowed conclusions to be drawn for the current study.

5.2 Socio-demographic and socio-economic information of students

The concentration of participants within the 20–24 years age range (42.7%) reflects a significant proportion of young adults in the study. This age group is typically associated with university-level education. The majority of participants reported a good level of financial support, which aligns with studies that highlight the financial dependence of university students on parents or guardians (Covarrubias et al., 2019). In a study that used a cross-sectional design, involving a sample of 1160 students from the University of Education, Winneba, Ghana, the authors reported that although the majority of students, (n=715, 61.6%), received financial assistance from their parents, a greater percentage of them, (n=550, 76.9%), indicated that their monetary support was either insufficient or lacking altogether. Students often rely on this pocket money to meet their basic needs, including food, transportation, and personal expenses. This study's finding of a third of students receiving 300 – 500 GHS monthly suggests that a considerable number of students might be managing with limited financial resources especially when the majority of students were not engaged in income generating activities. Among those engaged in side businesses, a significant portion earned above 1000 GHS per month. While these students may have some financial freedom, it is essential to

consider the potential impact of such engagements on students' academic performance, as excessive work commitments may lead to burnout and fatigue (Shen et al., 2015).

5.3 Sexual and reproductive health status and experiences of students

A high proportion of participants (64.1%) in this study reported that they had ever engaged in sexual activity. This finding is consistent with previous findings in the literature. According to Gbagbo & Nkrumah (2019), 80% of undergraduate students in higher education institutions are sexually active, which is slightly higher than the 64.1% found in the current study. Similarly, Tsegay et al. (2013) reported that almost half of university students in Ethiopia had their first sexual experience between 20-24 years. Furthermore, an earlier study among selected Senior High School Students in Ghana reported that a minority of only 14% had never engaged in sexual activities in their lifetime (Asiedu, 2019). The age at which the majority of the participants initiated sex is also consistent with the age range typically associated with the onset of sexual activity among young adults globally (Lyons et al., 2015; Chi et al., 2012). These findings highlight the commonality of sexual activity among young adults and emphasize the need for accessible sexual and reproductive health services to support their well-being.

The findings of the current study also indicated that 20.2% of the participants had ever been forced into sex. This finding underscores the importance of continued efforts to create a safe and supportive environment for students, promoting awareness, prevention, and support mechanisms to combat sexual assault on university campuses (Ninsiima et al., 2021). However, contrary to the advocacy in the literature highlighting the need for access to contraceptives and protection against sexually transmitted infections (STIs) (Baigry et al., 2023), the current study reported over a half of students not using any protection during their last sexual encounter, highlighting a potential gap in access to or utilization of protective measures. This highlights a concerning aspect of sexual health among students which can lead to the spread of STIs (Ajayi et al., 2016).

The reported number of sexual partners is another significant aspect of participants' sexual behaviour. A significant proportion of respondents reported sex with multiple partners, implying heightened risk of sexually transmitted infections, unintended pregnancies and emotional and psychological consequences.

5.4 Students' perception and awareness of Sexual and Reproductive Health (SRH)

The current study revealed that a majority of participants consider SRH services for students as very important, and there is generally high comfort discussing SRH topics with peers and health professionals. The pronounced comfort in discussing SRH topics with peers is consistent with the notion that peer support and communication play a crucial role in promoting positive sexual health behaviours among young adults (Ninsiima et al., 2021). The diminishing comfort level with discussing SRH topics with parents or family members is consistent with existing literature highlighting challenges in intergenerational communication about sexual health due to cultural norms and societal taboos (Baigry et al., 2023). Furthermore, the significant proportion of students reporting discomfort with discussing SRH topics with health professionals is also consistent with existing literature highlighting barriers such as trust issues, fear of breach of confidentiality, and concerns about judgment from healthcare providers (Ninsiima et al., 2021; Baigry et al., 2023). This emphasizes the need for interventions that prioritize trust building, confidentiality, and promotion of a non-judgmental healthcare environment.

Social media emerging as the second substantial source (15.96%) reflects the changing landscape of information dissemination among the youth. In a study in Tanzania by Mcharo et al., (2021) concerning where and how young people like to get their SHR information, the results indicated that among the respondents, peers (18.2%), media (16.2%), and schools (14.2%) were indicated as the primary sources for obtaining sexual and reproductive health (SRH) information and this was be attributed to the influence of peer discussions, the extensive reach and accessibility of media

channels, and the structured educational environment in schools, which collectively contribute to shaping individuals' knowledge and awareness of SRH. The results also align with research conducted in Indonesia by Razali et al. (2019), which found that students learn about reproductive health from social media, peers, family, and girlfriends or boyfriends. However, social media is where people find more information regarding reproductive health because it is more comfortable for them and their curiosity does not cause them to feel insecure or ashamed (Razali et al., 2019). The other diverse sources of information, including medical examinations, posters, the student clinic, and scholastic orientations received very minority utilization. This is consistent with the research by Mcharo et al., (2021) which revealed that most of these official sources received limited utilization, possibly due to factors such as lack of visibility, accessibility, or perceived relevance by the respondents.

5.5 Utilization of Reproductive Health Services by students on campus

The finding that a majority (63.25%) of participants have never accessed reproductive health services on campus suggests a notable gap in service utilization. In a qualitative study in the West Gonja District in Northern region, Ghana, it was reported that despite the availability of reproductive health services in the community, there is low utilization among adolescents in this region of Ghana and it is attributed to perceived negative attitudes of health workers, concerns about confidentiality, and adherence to prevailing social norms, leading to challenges in accessing these services and resulting in risky reproductive health choices by adolescents with potential negative impacts (Kyilleh et al., 2018). Abdurahman et al., (2022) also revealed that among those who completed their survey, only 23.5% utilized SRH services which meant one-in-four secondary school adolescents (23.5%) utilized SRH services. This is consistent with broader research highlighting barriers to accessing reproductive health services among young adults, including issues related to awareness, stigma, and confidentiality concerns (Bearak et al., 2019). Among those who

accessed reproductive health services, condoms emerged as the most commonly used service (44.65%), followed by emergency contraceptive pills (26.50%).

A notable proportion of participants accessed services at least once per semester (27.43%), suggesting infrequent utilization. Similar to this finding, in a study by Tlaye et al., (2018), the major findings of this study reveal that about one-third (33.8%) of adolescents utilized at least one of reproductive health services. On-campus pharmacies (25.6%) and off-campus pharmacies (16.5%) emerged as primary locations for accessing reproductive health services, with the university hospital and student clinic being less commonly utilized. This finding may reflect students' preferences for more discreet and easily accessible services, as well as potential concerns about confidentiality when accessing services within the university health facilities (Pampati et al., 2019). However, a study in Botswana by Hoque et al., (2013) revealed that students reported that their preferred places of accessing contraceptives were the clinics followed by the university clinics.

5.6 Factors influencing the utilization of RHS by students on campus

The majority of participants (75.94%) finding it easy to access SRH services on campus aligns with research emphasizing the importance of perceived accessibility in influencing service utilization (Mohamadi et al., 2021). Positive perceptions regarding accessibility can contribute to creating a supportive environment for students seeking reproductive health services (Mohamadi et al., 2021). The substantial satisfaction expressed by participants with the quality of SRH services echoes the significance of user satisfaction in healthcare utilization. A study revealed that approximately 59% of university students expressed satisfaction with the sexual reproductive health services provided by their campus clinics and pharmacies. Conversely, those who reported dissatisfaction cited barriers in accessing these services and concerns related to facility levels even when accessed (Abedian, & Shahhosseini, 2014).

While the majority reported no barriers (77.8%) in accessing SRH services, the identified barriers are crucial for addressing service gaps and improving overall utilization. The most prevalent barrier was lack of information about services (35.78%). On the contrary, research in Ghana by Abuosi, & Anaba (2019) about barriers on access to and use of adolescent health services in Ghana reported that barriers to accessing adolescent health services included facility-level challenges such as inadequate physical space, shortage of medicines and supplies, inadequate resources, inconvenient operating hours, and long patient waiting. There were community-level barriers such as lack of parental support and negative perception. And consistent with this finding is the fact that fear and lack of information were personal-level barriers faced by these adolescents (Abuosi & Anaba, 2019).

Stigma and discrimination from health providers (27.36%) highlight a critical issue that has been documented in various healthcare settings. A study by Nyblade et al., (2017) revealed that discrimination emerged as a barrier to using adolescent health services. Also, The Health Policy Project (2014) revealed that stigma and discrimination associated with the sexual behaviour and sexuality of young people not only diminishes the accessibility of HIV and reproductive health services for youth but also instills reluctance in young individuals who may attempt to conceal their sexual activity to evade societal judgment, hindering their willingness to utilize available services. Recognizing and addressing stigma and discrimination could potentially play a crucial role in enhancing the utilization of family planning and reproductive health services, even though this aspect is not widely acknowledged at present (The Health Policy Project, 2014). Concerns about long waiting times (9.47%) and fear of myths associated with SRH services (7.36%) point to practical and perception-related barriers. Consistent with this result is the findings of Abuosi & Anaba (2019) which revealed in their discussion that long waiting times emerged as a significant facility-level obstacle, particularly affecting pregnant adolescents. The reported influence of friends as a source of stigma and discrimination (7.36%) highlights the social dynamics affecting SRH

service. A study by Govender et al., (2019) reported that in the demographic area certain teenagers faced limitations imposed by friends and romantic partners when attempting to visit the adolescent clinic for the first time. Some adolescent girls even reported that their boyfriends warned them against going to the adolescent clinic.

5.7 SRH needs of students on campus

The significant majority (70.6%) expressing a desire for the expansion of SRH services on the University of Ghana campus underscores the importance of aligning reproductive health services with the evolving needs and preferences of the student population (Faye et al., 2018). In a study by Akazili et al., (2021), which stated that expanding access to sexual and reproductive health (SRH) services is one of the key targets of the Sustainable Development Goals, it was revealed that majority of the respondents felt if SRH services are expanded and made easily accessible, the utilization of these services will increase. The high percentage expressing a need for STI testing and treatment services (23.53%) aligns with global trends highlighting the increasing burden of sexually transmitted infections, especially among young adults (World Health Organization, 2019). In a study by Martin et al., (2021), it was discussed that the uptake of testing is improving over time by a significant percentage since 2018 in a certain Zimbabwean community, and uptake and prevalence of the STIs was higher in female participants than in male participants. The desire for voluntary counseling and testing (VCT) services (20.24%) reflects a positive attitude toward proactive health-seeking behaviours and aligns with research emphasizing the role of VCT in promoting early detection and management of sexually transmitted infections and HIV (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2017). Encouraging VCT aligns with broader strategies to enhance preventive care. Counseling on campuses regarding sexual reproductive health helps students navigate challenges, providing information, support, and promoting responsible decision-making, contributing to overall well-being. It also fosters a safe space for discussions on sensitive topics, reducing stigma and enhancing awareness (Mulaudzi et al., 2018).

The recognition of breast examination services as an important need (16.04%) corresponds with the emphasis on early detection of breast cancer, especially among young women (American Cancer Society, 2021). For instance, in a study conducted at a Ghanaian University of Allied Health by Nsaful et al., (2022), it was discovered that 70% of participants were informed about breast cancer, mammography, and breast self-examination (BSE). However, this awareness did not significantly impact their behaviour, with only 43% engaging in BSE. Additionally, 46% of these students expressed a belief that they had no risk of developing breast cancer in the future (Nsaful et al., 2022). The identification of cervical cancer screening (12.89%) and pregnancy testing (12.74%) as important needs reflects the diverse reproductive health concerns of participants. These findings resonate with global initiatives advocating for comprehensive reproductive health services, including cervical cancer prevention and family planning (World Health Organization, 2020; Tsu et al., 2017). While contraceptive services were identified as a need by 10.50% of participants, this may indicate varied preferences or existing access to contraception outside the campus. Understanding the specific contraceptive needs and preferences of students is crucial for tailoring services to meet individual requirements (Higgins et al., 2016; Batur et al., 2017). The relatively low percentage indicating a need for abortion services (4.07%) may reflect the legal and cultural context in Ghana, where access to safe abortion services may be restricted (Ganle et al., 2016). This finding underscores the importance of recognizing and respecting the legal and cultural considerations surrounding reproductive health services.

5.8 Sexual Activity and SRH Utilization

The important association of previous sexual experience with the use of SRH services is consistent with the existing literature. For example, some studies have shown that more sexually active individuals were also more likely to use contraception services, screening for STIs, and counseling about reproductive health due to their observable risk to reproductive health (Abdurahman et al., 2022; Leon-Larios & Macías-Seda, 2017). The relationship among university students in Kenya

showed that sexually active respondents almost tripled the odds to access SRH services compared to their abstinent counter-parts, primarily because of the immediate need for contraceptives and STI prevention (Mbuthia et al., 2019). In Nigeria, it was pointed out that risk and susceptibility perceptions were among the foremost driving forces of service uptake among sexually active youth (Ojoniyi et al., 2022). In contrast, persons who had never engaged in sexual activity had a significantly lower likelihood of accessing SRH services. This is consistent with findings from Ghana and Uganda noting that young people who described themselves as abstinent have lower awareness and engagement with the SRH services and often perceive them as unnecessary (Klu et al., 2023; Sidamo et al., 2024). The low uptake within this group may also arise due to cultural and religious norms rejecting sexual-health discussions before marriage, leaving further knowledge gaps about the services available (Agblevor et al., 2023).

5.9 Impact of STI History on SRH Service Use

A history of STIs was one of the strongest predictors of SRH service utilization, a finding that aligns with studies in sub-Saharan Africa and beyond. Individuals with prior STI diagnoses may have a heightened awareness of reproductive health risks and the importance of regular medical checkups, making them more likely to seek SRH services (Chekol et al., 2023). Research in Northern Uganda reported that individuals with past STI experiences were four times as likely to utilize SRH services, with fear of reinfection and complications being key motivating factors (Murungi et al., 2023).

Comparatively, a study in South Africa found that prior STI history not only influenced SRH service uptake but also increased the likelihood of future engagement with preventive measures such as condom use and regular screenings (Mbogua, 2023). The continued significance of this factor in the adjusted model suggests that past STI experiences serve as a crucial turning point for individuals to prioritize reproductive health care. However, despite increased utilization, stigma associated with STIs remains a major barrier, with some individuals avoiding formal healthcare settings due to fear

of discrimination (Bohren et al., 2022). Addressing stigma and improving the confidentiality of SRH services could further enhance service utilization among at-risk populations.

5.10 Strengths and Limitations of the Study

The study exhibits several notable strengths that enhance its overall robustness and contribution to the field of sexual and reproductive health among university students. Firstly, through a comparative analysis, the research skilfully aligns its findings with existing literature, thereby enriching the depth and validity of its discussions and conclusions. Additionally, the study stands out for its provision of comprehensive socio-demographic insights, offering a detailed exploration of participants' backgrounds, with particular emphasis on their financial status and age distribution. Furthermore, the research achieves a commendable level of depth by delving into the sexual and reproductive health experiences of university students. It not only addresses critical factors such as sexual initiation, forced encounters, contraceptive use, and the number of sexual partners but also employs a holistic approach by comprehensively assessing students' perceptions, awareness, and utilization of reproductive health services on the University of Ghana campus. Moreover, the study makes a valuable contribution to the field by identifying and exploring barriers to service utilization, thus allowing for targeted interventions. Lastly, the assessment of students' perceived needs regarding sexual and reproductive health services provides crucial insights that can inform the improvement and expansion of services to better meet the evolving needs of the student population.

Despite its strengths, the study is not without limitations. The use of a cross-sectional design, while providing valuable insights, limits the ability to establish causation and capture dynamic changes over time. This design choice offers a snapshot that may not fully represent the evolving nature of sexual and reproductive health behaviours and needs among university students. Additionally, the reliance on self-reported data introduces the potential for reporting bias, especially when dealing with sensitive topics such as sexual behaviours. The findings may also have limited generalizability

beyond the specific context of the University of Ghana, cautioning against broad application to other populations or settings. Furthermore, the study recognizes the cultural and legal context of Ghana regarding abortion services, which may further restrict the generalizability of findings to regions with different legal frameworks or cultural perspectives on reproductive health. The underrepresentation of certain demographics within the study population poses a potential limitation, impacting the broader applicability of the results.



CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

In conclusion, this study provided invaluable insights into the intricate dynamics of SRH among university students. The majority expressing a desire for expanded SRH services signals a clear demand for tailored and accessible reproductive health interventions on campuses. Positive perceptions of accessibility and satisfaction with services are prevalent, highlighting the potential impact of well-implemented reproductive health programs. However, barriers such as a lack of information and stigma must be effectively addressed to optimize service utilization. The study underscores the pivotal role of comprehensive SRH education, destigmatizing healthcare environments, and fostering open communication channels between students, families, and healthcare providers. The findings suggest that a holistic approach to SRH should consider not only the physical aspects of health but also the socio-cultural dynamics that shape students' attitudes and behaviors. Recognizing the diversity of financial backgrounds and cultural influences among students is crucial for tailoring interventions that resonate with their specific needs. It is evident that a one-size-fits-all approach to SRH services may not suffice, necessitating a nuanced understanding of the unique challenges and preferences within the student population.

Furthermore, the study highlights the significant influence of socio-demographic and sexual health factors on SRH service utilization. Age, academic level, and relationship status emerged as key determinants, reinforcing the need for targeted interventions that address the specific needs of different student subgroups. The strong association between past sexual health experiences and service utilization underscores the importance of trauma-informed care and the integration of counseling services within SRH programs. Additionally, the findings emphasize the necessity of proactive outreach efforts to engage students who may not perceive SRH services as relevant to

their needs, particularly those who are not yet sexually active. Universities should prioritize policies that not only expand access to SRH services but also foster a supportive environment where students feel empowered to make informed reproductive health decisions without fear of stigma or judgment.

6.2 Recommendations

The study's findings provide a foundation for key recommendations aimed at enhancing the sexual reproductive health (SRH) services and support for university students.

1. Firstly, there is a pressing need for targeted interventions to address the barriers identified in accessing SRH services. The significant proportion of participants expressing discomfort in discussing SRH topics with health professionals underscores the importance of implementing programs that foster trust, ensure confidentiality, and create a non-judgmental healthcare environment. This may involve specialized training for healthcare providers by partnering with SRHR organizations such as Marie Stopes Ghana and the Planned Parenthood Association of Ghana (PPAG), awareness campaigns, and initiatives that promote open communication channels between students and health professionals.
2. Secondly, the substantial number of participants relying on friends and social media for SRH information suggests the need for targeted educational campaigns led by peers. The reproductive health unit of the University hospital should encourage the formation of youth SRH champions on campus and explore partnerships with SRH focused organizations such as the Planned Parenthood Association of Ghana (PPAG) to promote awareness, dispel myths, and provide accurate SRH information. Leveraging social media platforms, which emerged as a significant source of information, can enhance the reach and impact of such initiatives.

3. **Strengthening Outreach to Underutilizing Groups:** Given the findings that younger students and those not in sexual relationships had lower SRH service utilization, targeted outreach efforts should be developed. Universities should implement orientation programs that introduce first-year students to available SRH services and emphasize their importance beyond sexual activity. Additionally, awareness campaigns should address misconceptions about who can access these services, ensuring inclusivity for all students.
4. **Integrating Comprehensive SRH Education into Curricula:** Since a lack of information was a key barrier to SRH service utilization, universities should consider integrating comprehensive SRH education into academic curricula or mandatory health seminars. These sessions should cover safe sexual practices, STI prevention, contraception, and reproductive rights, reinforcing the importance of proactive healthcare-seeking behaviour.
5. **Enhancing Trauma-Informed and Confidential Care:** The study found that students with past experiences of STIs, pregnancy, abortion, or sexual coercion were more likely to seek SRH services. This underscores the need for trauma-informed care approaches that provide psychological support alongside medical services. Confidential counseling units should be strengthened to support students dealing with sensitive SRH issues without fear of stigma.
6. **Fostering a Supportive and Stigma-Free Environment:** Stigma remains a key deterrent to SRH service utilization. Campus-wide initiatives, including advocacy campaigns and student-led forums, should be implemented to normalize conversations around SRH. Partnerships with student associations and clubs can help create safe spaces where reproductive health discussions are encouraged without judgment.

6.3 Further and Future Research

This study has provided significant insights into the utilization of sexual and reproductive health (SRH) services among university students; however, several areas warrant further exploration.

Expanding this research to include other tertiary institutions across Ghana would provide a broader understanding of SRH service utilization patterns and the socio-cultural factors influencing them.

To strengthen the validity of future studies, refining the research instrument to capture more nuanced factors influencing SRH service Longitudinal study designs may clarify the progression of SRH utilization of services over time, offering a comprehensive framework for assessing the enduring effects of interventions intended to improve access.

Additionally, exploring the effectiveness of digital health interventions, such as social media campaigns and mobile health applications, in promoting SRH education and service uptake among university students would be highly relevant given the increasing reliance on online platforms for health information.



REFERENCES

- Abdurahman, C., Oljira, L., Hailu, S., & Mengesha, M. M. (2022). Sexual and reproductive health services utilization and associated factors among adolescents attending secondary schools. *Reproductive Health*, 19(1). <https://doi.org/10.1186/s12978-022-01468-w>
- Abedian, K., & Shahhosseini, Z. (2014). University students' point of views to facilitators and barriers to sexual and reproductive health services. *International journal of adolescent medicine and health*, 26(3), 387-392.
- Abuosi, A. A., & Anaba, E. A. (2019). Barriers on access to and use of adolescent health services in Ghana. *Journal of Health Research*, 33(3), 197-207.
- Agblevor, E. A., Darko, N. A., Acquah, P. A., Addom, S., Mirzoev, T., & Agyepong, I. A. (2023). "We have nice policies but...": implementation gaps in the Ghana adolescent health service policy and strategy (2016-2020). *Front Public Health*, 11, 1198150. <https://doi.org/10.3389/fpubh.2023.1198150>
- Ajayi, A. I., Nwokocha, E. E., Akpan, W., & Adeniyi, O. V. (2016). Use of non-emergency contraceptive pills and concoctions as emergency contraception among Nigerian University students: Results of a qualitative study. *BMC Public Health*, 16(1). <https://doi.org/10.1186/s12889-016-3707-4>
- Asiedu, C. (2019). Sexual experiences among senior high students at selected schools in cape coast metropolis in central region of Ghana.
- Baigry, M. I., Ray, R., Lindsay, D., Kelly-Hanku, A., & Redman-MacLaren, M. (2023). Barriers and enablers to young people accessing sexual and reproductive health services in Pacific Island Countries and Territories: A scoping review. *PLoS ONE*, 18(1 January), 1DUMNMY. <https://doi.org/10.1371/journal.pone.0280667>
- Bearak, J., Popinchalk, A., Alkema, L., & Sedgh, G. (2018). Global, regional, and subregional trends in unintended pregnancy and its outcomes from 1990 to 2014: estimates from a Bayesian hierarchical model. *The Lancet Global Health*, 6(4), e380-e389.
- Bediako, F. A., Suglo, J. N., & Ninnoni, J. P. (n.d.). *Utilization of sexual and reproductive health services among students: Insight from a Ghanaian University*.
- Bohren, M. A., Corona, M. V., Odiase, O. J., Wilson, A. N., Sudhinaraset, M., Diamond-Smith, N., Berryman, J., Tunçalp, Ö., & Afulani, P. A. (2022). Strategies to reduce stigma and discrimination in sexual and reproductive healthcare settings: a mixed-methods systematic review. *PLOS Global Public Health*, 2(6), e0000582.
- Bokoh, M. A., Bello Miss, M. M., Ajoviyon Bokoh Fatiu Ademola Akesode Library, M., & Modinat Bello, M. (n.d.). *Use of Social Media Platforms for Dissemination of Information Use of Social Media Platforms for Dissemination of Information and Creating Awareness about Library Resources and Services and Creating Awareness about Library Resources and Services among Students in Use of Social Media Platforms for Dissemination of Information and Creating Awareness about Library Resources and Services among Students in Lagos State University, Nigeria*. <https://digitalcommons.unl.edu/libphilprac>
- Cassidy, C., Bishop, A., Steenbeek, A., Langille, D., Martin-Misener, R., & Curran, J. (2018). Barriers and enablers to sexual health service use among university students: A qualitative descriptive study using the Theoretical Domains Framework and COM-B model. *BMC Health Services Research*, 18(1). <https://doi.org/10.1186/s12913-018-3379-0>

- Chekol, B. M., Sheehy, G., & Siraneh, Y. (2023). Sexual and reproductive health experiences, access to services, and sources of information among university students in Ethiopia. *Front Reprod Health*, 5, 1271685. <https://doi.org/10.3389/frph.2023.1271685>
- Dahal, P., Joshi, S. K., & Swahnberg, K. (2022). A qualitative study on gender inequality and gender-based violence in Nepal. *BMC Public Health*, 22(1). <https://doi.org/10.1186/s12889-022-14389-x>
- Desrosiers, A., Betancourt, T., Kergoat, Y., Servilli, C., Say, L., & Kobeissi, L. (2020). A systematic review of sexual and reproductive health interventions for young people in humanitarian and lower-and-middle-income country settings. *BMC Public Health*, 20(1). <https://doi.org/10.1186/S12889-020-08818-Y>
- DeSouza, E., Kwabena-Adade, J., & Boakye, P. (2018). Factors influencing the utilization of sexual and reproductive health services among university students in Ghana. *African Journal of Reproductive Health*, 22(1), 58-67.
- Facts & Figures | INSTITUTIONAL RESEARCH AND PLANNING OFFICE (IRPO)*. (n.d.). Retrieved June 1, 2023, from <https://www.ug.edu.gh/irpo/facts-figures>
- Faye, C. M., Speizer, I. S., Fotso, J. C., Corroon, M., & Koumtingue, D. (2013). Unintended pregnancy: magnitude and correlates in six urban sites in Senegal. *Reproductive health*, 10(1), 1-10.
- Ganle, J. K., Amoako, D., Baatiema, L., & Ibrahim, M. (2016). Risky sexual behaviour and contraceptive use in contexts of displacement: Insights from a cross-sectional survey of female adolescent refugees in Ghana. *International Journal for Equity in Health*, 15(1), 1-9.
- Gbagbo, F. Y., & Nkrumah, J. (2019). Family planning among undergraduate university students: A CASE study of a public university in Ghana. *BMC Women's Health*, 19(1). <https://doi.org/10.1186/s12905-019-0708-3>
- Ghana: students in tertiary education 2005-2020 | Statista*. (n.d.). Retrieved May 19, 2023, from <https://www.statista.com/statistics/1180524/number-of-students-in-tertiary-education-in-ghana/>
- Govender, D., Naidoo, S., & Taylor, M. (2019). Knowledge, attitudes and peer influences related to pregnancy, sexual and reproductive health among adolescents using maternal health services in Ugu, KwaZulu-Natal, South Africa. *BMC public health*, 19, 1-16.
- Griffin, S. (n.d.). *Literature review on Sexual and Reproductive Health Rights: Universal Access to Services, focussing on East and Southern Africa and South Asia A. OVERVIEW OF THE RESEARCH*. <http://www.ippf.org/Content>
- Gu, E., Ip, O., & He, A. (2018). Sexual Behaviour and Patterns of Contraceptive Use among Students of Tertiary Institutions in Southern Nigeria. In *JOURNAL OF COMMUNITY MEDICINE AND PRIMARY HEALTH CARE* (Vol. 30, Issue 1).
- Guttmacher Institute. (2023). How Universal Health Coverage Can Increase Access to Sexual and Reproductive Health Services in Sub-Saharan Africa. Retrieved from <https://www.guttmacher.org/report/universal-health-coverage-access-to-srh-services-subsaharan-africa>
- Higgins, J. A., Popkin, R. A., & Santelli, J. S. (2016). Class, race/ethnicity, and contraceptive use within young women's heterosexual relationships. *American Journal of Public Health*, 106(5), 1000-1006.
- Health Policy Project (2014). Stigma and Discrimination. site: https://www.healthpolicyproject.com/ns/docs/Topic_Stigma.pdf

- Hoque, M. E., Ntsipe, T., & Mokgatle-Nthabu, M. (2013). Awareness and practices of contraceptive use among university students in Botswana. *SAHARA-J: Journal of Social Aspects of HIV/AIDS*, 10(2), 83-88.
- Joint United Nations Programme on HIV/AIDS (UNAIDS). (2017). Miles to go: closing gaps, breaking barriers, righting injustices. UNAIDS. https://www.unaids.org/sites/default/files/media_asset/miles-to-go_en.pdf
- Kilburn, K., Ranganathan, M., Stoner, M. C. D., Hughes, J. P., MacPhail, C., Agyei, Y., Gomez-Oliveg, F. X., Kahng, K., & Pettifor, A. (2018). Transactional sex and incident HIV infection in a cohort of young women from rural South Africa. *AIDS*, 32(12), 1669–1677. <https://doi.org/10.1097/QAD.0000000000001866>
- Klu, D., Gyapong, M., Agordoh, P. D., Azagba, C., Acquah, E., Doegah, P., Ofosu, A., & Ansah, E. K. (2023). Adolescent perception of sexual and reproductive health rights and access to reproductive health information and services in Adaklu district of the Volta Region, Ghana. *BMC Health Services Research*, 23(1), 1456. <https://doi.org/10.1186/s12913-023-10447-1>
- Kyilleh, J. M., Tabong, P. T. N., & Konlaan, B. B. (2018). Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: a qualitative study in the West Gonja District in Northern region, Ghana. *BMC international health and human rights*, 18(1), 1-12.
- Leekuan, P., Kane, R., Sukwong, P., & Kulnitichai, W. (2022). Understanding sexual and reproductive health from the perspective of late adolescents in Northern Thailand: a phenomenological study. *Reproductive Health*, 19(1). <https://doi.org/10.1186/s12978-022-01528-1>
- Leon-Larios, F., & Macías-Seda, J. (2017). Factors related to healthy sexual and contraceptive behaviors in undergraduate students at university of Seville: a cross-sectional study. *Reproductive health*, 14(1), 179. <https://doi.org/10.1186/s12978-017-0444-9>
- Lyons, H. A., Manning, W. D., Longmore, M. A., & Giordano, P. C. (2015). Gender and casual sexual activity from adolescence to emerging adulthood: Social and life course correlates. *Journal of Sex Research*, 52(5), 543-557.
- Martin, K., Olaru, I. D., Buwu, N., Bandason, T., Marks, M., Dauya, E., ... & Ferrand, R. A. (2021). Uptake of and factors associated with testing for sexually transmitted infections in community-based settings among youth in Zimbabwe: a mixed-methods study. *The Lancet Child & Adolescent Health*, 5(2), 122-132.
- Mbogua, J. (2023). *Towards Elimination of Vertical Transmission of HIV: Utilisation of HIV and Sexual and Reproductive Health Interventions by Female Sex Workers in Kenya and South Africa* [London School of Hygiene & Tropical Medicine].
- Mbuthia, G., Wanzala, P., Ngugi, C., & Nyamogoba, H. (2019). Patterns of risky sexual behavior and associated factors among undergraduates in the Coastal region of Kenya. *African Journal of Health Sciences*, 32(3), 16-26.
- Mcharo, R. D., Mayaud, P., & Msuya, S. E. (2021). Where and how do young people like to get their sexual and reproductive health (SRH) information? Experiences from students in higher learning institutions in Mbeya, Tanzania: a cross-sectional study. *BMC public health*, 21, 1-10.
- Mengistu, T. S., & Melku, A. T. (2013). Sexual and Reproductive Health Problems and Service Needs of University Students in South East Ethiopia: Exploratory Qualitative Study. <http://www.sciencepublishinggroup.com>, 1(4), 184. <https://doi.org/10.11648/J.SJPH.20130104.13>
- Mohamadi, S., Paryab, S., Mousavi, S. A., Keramat, A., Motaghi, Z., & Garkaz, O. (2021). Comparison of the effect of motivational interview and peer group education on knowledge and performance about puberty and mental health in adolescent girls. *Journal of Nursing and Midwifery Sciences*, 8(3), 178.

- Mprah, W. K., Duorinaah, J., Opoku, M. P., & Nketsia, W. (2022). Barriers to utilization of sexual and reproductive health services among young deaf persons in Ghana. *African Journal of Reproductive Health*, 26(12). <https://doi.org/10.29063/ajrh2022/v26i12.7>
- Mulaudzi, M., Dlamini, B. N., Coetzee, J., Sikkema, K., Gray, G., & Dietrich, J. J. (2018). Perceptions of counsellors and youth-serving professionals about sexual and reproductive health services for adolescents in Soweto, South Africa. *Reproductive health*, 15, 1-9.
- Murungi, T., Benyumiza, D., Apio, J., Nekesa, C., Nalubuuka, A., Misuk, I., & Kumakech, E. (2023). Factors Associated with Utilization of Sexual and Reproductive Health Services among the Youth in Lira City West, Northern Uganda: A Cross-Sectional Study. *Biomed Res Int*, 2023, 9649792. <https://doi.org/10.1155/2023/9649792>
- Nakirijja, D. S., Xuili, X., & Kayiso, M. I. (2018). Socio-economic Determinants of Access to and Utilization of Contraception among Rural Women in Uganda: The Case of Wakiso District. *Health Science Journal*, 12(6). <https://doi.org/10.21767/1791-809x.1000608>
- National Population Council. (2019). Ghana's adolescent reproductive health policy. Accra, Ghana: National Population Council.
- Ninsiima, L. R., Chiumia, I. K., & Ndejjo, R. (2021). Factors influencing access to and utilisation of youth-friendly sexual and reproductive health services in sub-Saharan Africa: a systematic review. In *Reproductive health* (Vol. 18, Issue 1, p. 135). NLM (Medline). <https://doi.org/10.1186/s12978-021-01183-y>
- Nsaful, J., Dedey, F., Nartey, E., Labi, J., Adu-Aryee, N. A., & Clegg-Lamptey, J. N. (2022). The impact of a breast cancer educational intervention in Ghanaian high schools. *BMC cancer*, 22(1), 1-10.
- Nuwamanya, E., & Babigumira, J. B. (2020). *Barriers to Sexual and Reproductive Health Information among University Students in Uganda: A qualitative study*. <https://doi.org/10.21203/rs.3.rs-42257/v1>
- Nyblade, L., Stockton, M., Nyato, D., & Wamoyi, J. (2017). Perceived, anticipated and experienced stigma: exploring manifestations and implications for young people's sexual and reproductive health and access to care in North-Western Tanzania. *Culture, health & sexuality*, 19(10), 1092-1107.
- Ojoniya, O. O., Ogujiuba, K., & Stiegler, N. (2022). Susceptibility of Nigerian adolescents to pregnancy and use of modern contraceptives. *African Journal of Reproductive Health*, 26(2), 106-117.
- Onyu, J. (2019). IS SEXUAL REPRODUCTIVE HEALTH EDUCATION FOR UNIVERSITY STUDENTS NECESSARY? THE CASE OF UNDERGRADUATE FEMALE STUDENTS' AT MAKERERE UNIVERSITY, UGANDA. In *Ethiopian Journal of Reproductive Health* (Vol. 11, Issue 2). EJRH. <https://www.researchgate.net/publication/332809557>
- Oyediran, K. A., Ishola, G. P., & Feyisetan, B. J. (2021). Factors influencing the utilization of reproductive health services among young women in Nigeria. *African Journal of Reproductive Health*, 25(2), 50-61.
- Ravindran, T. K. S., & Govender, V. (2020). Sexual and reproductive health services in universal health coverage: A review of recent evidence from low- and middle-income countries. *Sexual and Reproductive Health Matters*, 28(2), 1779632.
- Razali, A., Sismudjito, S., Achmad, N., Ismail, R., & Manurung, R. (2019). Reproductive Health Knowledge on Senior High School Students (General Private School and Religious Public School) in Deli Serdang Regency, Indonesia.

- Sexually transmitted infections (STIs)*. (n.d.). Retrieved May 19, 2023, from [https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-\(stis\)](https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis))
- Shen, B., McCaughtry, N., Martin, J., Garn, A., Kulik, N., & Fahlman, M. (2015). The relationship between teacher burnout and student motivation. *British Journal of Educational Psychology*, *85*(4), 519-532.
- Sidamo, N. B., Kerbo, A. A., Gidebo, K. D., & Wado, Y. D. (2024). Exploring Barriers to Accessing Adolescents Sexual and Reproductive Health Services in South Ethiopia Regional State: A Phenomenological Study Using Levesque's Framework. *Adolesc Health Med Ther*, *15*, 45-61. <https://doi.org/10.2147/ahmt.S455517>
- Statista. (2022). Ghana: Adolescent fertility rate from 2010 to 2020. Retrieved from <https://www.statista.com/statistics/1123456/ghana-adolescent-fertility-rate/>
- The Health Policy Project. (2014). Ghana: Assessing financing, education, management, and policy context for strategic planning of family planning and reproductive health programs. Washington, DC: Futures Group, Health Policy Project.
- Thongmixay, S., Essink, D. R., De Greeuw, T., Vongxay, V., Sychareun, V., & Broerse, J. E. W. (2019). Perceived barriers in accessing sexual and reproductive health services for youth in Lao People's Democratic Republic. *PLoS ONE*, *14*(10). <https://doi.org/10.1371/journal.pone.0218296>
- Tlaye, K. G., Belete, M. A., Demelew, T. M., Getu, M. A., & Astawesegn, F. H. (2018). Reproductive health services utilization and its associated factors among adolescents in Debre Berhan town, Central Ethiopia: a community-based cross-sectional study. *Reproductive health*, *15*, 1-11.
- Tsegay, G., Edris, M., & Meseret, S. (2013). *Assessment of voluntary counseling and testing service utilization and associated factors among Debre Markos University Students, North West Ethiopia: a cross-sectional survey in 2011*. <http://www.biomedcentral.com/1471-2458/13/243>
- United Nations Population Fund. (2022). State of world population 2022: Seeing the unseen—The case for action in the neglected crisis of unintended pregnancy. New York: UNFPA.
- Wakjira, D. B., & Habedi, D. (2022). Barriers to access and utilisation of sexual and reproductive health services among adolescents in Ethiopia: a sequential mixed-methods study. *BMJ Open*, *12*(11). <https://doi.org/10.1136/bmjopen-2022-063294>
- Why Africa's youth hold the key to its development potential | World Economic Forum*. (n.d.). Retrieved March 15, 2023, from <https://www.weforum.org/agenda/2022/09/why-africa-youth-key-development-potential/>
- World Health Organization. (2017). Global strategy for women's, children's and adolescents' health (2016-2030): 2017 monitoring report. Geneva: WHO.
- World Health Organization. (2019). Report on global sexually transmitted infection surveillance 2018. World Health Organization. <https://www.who.int/reproductivehealth/publications/stis-surveillance-2018/en/>
- United Nations Department of Economic and Social Affairs. (2018). World youth report: Youth and the 2030 agenda for sustainable development. New York: United Nations.
- Yared, A., Sahile, Z., & Mekuria, M. (2017). Sexual and reproductive health experience, knowledge and problems among university students in Ambo, central Ethiopia. *Reproductive Health*, *14*(1). <https://doi.org/10.1186/s12978-017-0302-9>

APPENDICES

APPENDIX 1 Questionnaire

QUESTIONNAIRE ON STUDENTS' UTILIZATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES IN THE UNIVERSITY OF GHANA.

PARTICIPANTS CONSENT

Introduction

My name is Adelle Myra Nkansah, a postgraduate student of the School of Public Health, University of Ghana. I am conducting a study on "Utilization of sexual and reproductive health services by University of Ghana students." The study seeks to assess the level of utilization of sexual reproductive health services by students on campus. The information provided by you will help the University of Ghana and other stakeholders to put in measures that will address sexual and reproductive health needs and improve your over wellbeing.

Risks and discomforts

There is minimal risk associated with the study, however some of the questions may make you uncomfortable.

Benefits

The information obtain from this study will bring to light the various sexual reproductive health services available to students on campus and how well they are utilized.

Participation and Confidentiality

I assure you that the information provided will be treated with utmost confidentiality and privacy. I kindly ask that you participate and provide answers as accurate as possible to the questions. You may choose to withdraw your participation at any stage if you wish but I will be very glad to have you complete the questionnaire fully. It will take between 10-15 minutes of your time.

For further information or clarification, you may contact;

Ms. Adelle Myra Nkansah

+233509502463

amnkansah@st.ug.edu.gh

Consent Form

I, have read or have had the information above read out to me in a language I can understand. I have had the chance to ask questions and all of them have received satisfactory answers. I willingly agree to participate in this study on **UTILIZATION OF SEXUAL**

REPRODUCTIVE HEALTH SERVICES BY STUDENTS OF THE UNIVERSITY OF GHANA and I am aware that I have the right to withdraw from the study at any point without it having any impact on me whatsoever.

I hereby consent to participate in this study.

Thank you.

UTILIZATION OF SEXUAL REPRODUCTIVE HEALTH SERVICES BY STUDENTS OF THE UNIVERSITY OF GHANA

Section A: Demographic characteristics

1. Gender

- A. Male
- B. Female

2. Age of respondent

- A. Under 20
- B. 20-24 years
- C. 25 years and above

3. Religion

- A. Christian
- B. Muslim
- C. Traditional religion
- D. Others (please specify)

4. Ethnicity

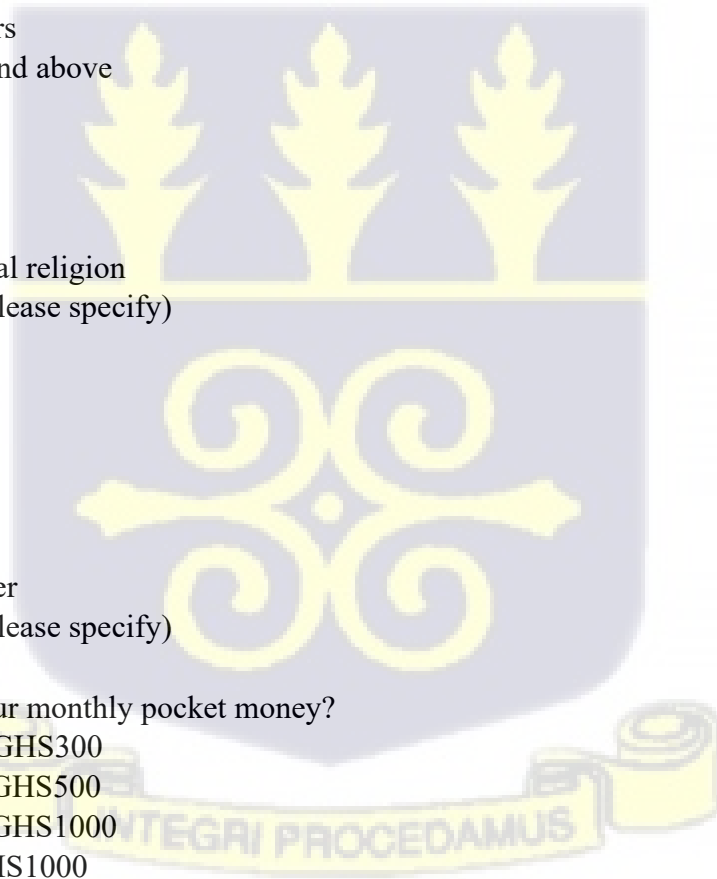
- A. Akan
- B. Ga
- C. Fante
- D. Ewe
- E. Northerner
- F. Others (please specify)

5. How much is your monthly pocket money?

- A. GHS100-GHS300
- B. GHS300-GHS500
- C. GHS500-GHS1000
- D. Above GHS1000

6. Are you engaged in any economic activity/ side business currently?

- A. Yes
- B. No



7. How much do you make from this business monthly?

- A. Less than GHS100
- B. GHS100-GHS500
- C. GHS500-GHS1000
- D. Above GHS1000

8. Relationship status

- A. In a sexual relationship
- B. In a non-sexual relationship
- C. Single
- D. Married

9. Program of study

- A. College of Health Sciences
- B. College of Basic and Applied Sciences
- C. College of Education
- D. College of Humanities

10. Hall of Residence (Please specify)

Section B: Attitude towards SRH services

11. In your opinion, how important are SRH services for students?

- A. Very important
- B. Somewhat important
- C. Neutral
- D. Somewhat unimportant
- E. Very unimportant

12. How comfortable are you discussing SRH topics with peers?

- A. Very comfortable
- B. Somewhat comfortable
- C. Neutral
- D. Somewhat uncomfortable
- E. Very uncomfortable

13. How comfortable are you discussing SRH topics with parents or family members?

- A. Very comfortable
- B. Somewhat comfortable
- C. Neutral
- D. Somewhat uncomfortable
- E. Very uncomfortable

14. Are you comfortable discussing SRH topics with health professionals?
- A. Yes
 - B. No
15. If you answered no to question 9, what are the reasons for your discomfort? (Select all that apply)
- * Fear of judgment from healthcare providers
 - * Fear of breach of confidentiality
 - * Cultural or religious beliefs
 - * Lack of trust in healthcare providers
 - * Other (please specify) _____

Section C: General Information and Reproductive History

16. How old were you when you started having sex?
- A. 15-20 years
 - B. 20-24 years
 - C. 25 years and above
 - E. I have never had sex
17. When was the last time you had sex?
- A. Within the week
 - B. Within the past week
 - C. Within the past month
 - D. Quite a while ago
 - E. I do not remember
18. Did you use protection?
- A. Yes
 - B. No
19. Whom did you have sex with?
- A. My partner
 - B. A friend
 - C. A random person
 - D. An elderly person I know
20. How many sexual partners have you had since you started having sex?
- A. Just one
 - B. More than one but less than five
 - C. More than five
 - D. I do not remember
21. Have you ever been coerced to have sex?
- A. Yes
 - B. No

22. By whom?

- A. My partner
- B. A friend
- C. A random person
- D. An elderly person I know

23. Have you ever had unprotected sex?

- A. Yes
- B. No

24. Have you ever been pregnant or gotten someone pregnant?

- A. Yes
- B. No

25. Have you ever had an STI?

- A. Yes
- B. No

26. Have you ever had an abortion?

- A. Yes
- B. No

Section D: Utilization of SRH services

27. Have you ever accessed any SRH services on campus?

- A. Yes
- B. No

28. If yes, which services have you accessed? (Select all that apply)

- A. Condoms
- B. Emergency contraceptives
- C. Other contraception methods
- D. STI testing/treatment
- E. Pregnancy testing
- F. Abortion services
- G. Cervical cancer screening
- H. Breast examination
- I. Voluntary counseling and testing (VCT)
- J. Other (please specify)

29. How often have you accessed these services?

- A. Just once
- B. At least once a semester

- C. At least twice in a semester
- D. At least once in a year
- E. Never

30. Where do you often access these services?

- A. Students' clinic
- B. University hospital
- C. On-campus Pharmacies
- D. Off-campus Pharmacies

31. How easy was it for you to access sexual and reproductive health services at the University of Ghana?

- A. Very easy
- B. Somewhat easy
- C. Neutral
- D. Somewhat difficult
- E. Very difficult

32. How did you learn about the SRH services available on campus?

- A. Social media
- B. Friends
- C. School orientation
- D. Medical examination
- E. Student clinic
- F. Posters

33. If you have not accessed sexual and reproductive health services before, what are the reasons?

(Select all that apply)

- A. Lack of information
- B. Stigma associated with seeking services
- C. Cost
- D. Lack of availability
- E. I do not need it
- F. Other (please specify)

34. How satisfied are you with the quality of the SRH services on campus?

- A. Very satisfied
- B. Somewhat satisfied
- C. Neither satisfied nor dissatisfied
- D. Somewhat dissatisfied
- E. Very dissatisfied

35. Have you ever faced any barriers in accessing SRH services on campus?

- A. Yes
- B. No

36. If yes, what were they? (Select all that apply)

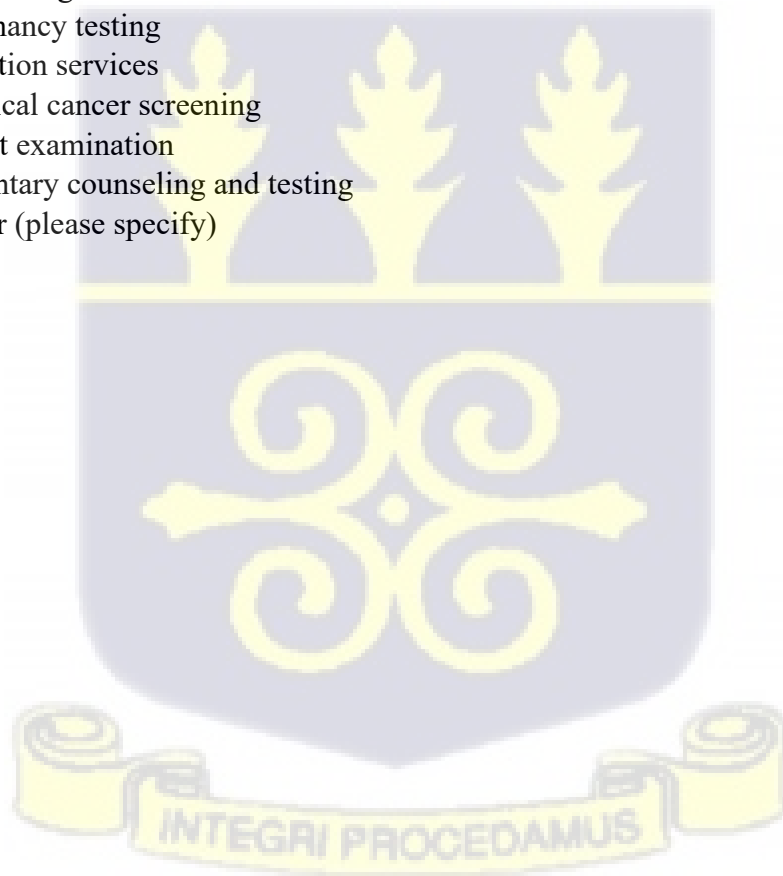
- A. Lack of information about available services
- B. Long waiting times
- C. Stigma and discrimination from friends
- C. Stigma and discrimination from healthcare providers
- D. Inadequate funding for services
- E. Fear of myths associated with SRH services
- F. Other (please specify) _____

37. Are there any specific SRH services that you think should be made more available on campus?

- A. Yes
- B. No

38. If yes, select all that apply.

- A. Contraception
- B. STI testing/treatment
- C. Pregnancy testing
- D. Abortion services
- E. Cervical cancer screening
- F. Breast examination
- G. Voluntary counseling and testing
- H. Other (please specify)



Appendix 2: Consent form

INFORMED CONSENT FORM

NMIMR-IRB CONSENT FORM TEMPLATE

Title: Utilization of Sexual and Reproductive Health Services by Students of the University of Ghana

Principal Investigator: Adelle Myra Nkansah

Address: School of Public Health, University of Ghana, Legon

General Information about Research

(State clearly the objective of the research in easily-understood words. There must be a statement that the study involves research, an explanation of the purpose of the research and the expected duration of the participant's participation, a description of the procedures to be followed and the identification of any procedures which are experimental and what the participant(s) is supposed to do. All information about the research must be stated)

(NB: Avoid the use of technical language or jargons)

Possible Risks and Discomforts

There is minimal risk associated with the study, however some of the questions may make you uncomfortable.

Possible Benefits

The information obtain from this study will bring to light the various sexual reproductive health services available to students campus and how well they are utilized.

Alternatives to Participation

(Disclosure of appropriate alternatives or courses of treatment, if any, that might be advantageous to the subject).

(This does not apply to all studies and usually used for intervention studies)

Confidentiality

(A statement describing the extent, if any, to which confidentiality of records identifying the subjects will be maintained. For example, "We will protect information about you to the best of our ability. You will not be named in any reports. Some staff of [list all groups that may access the research records] may sometimes look at your research records").

Compensation

(If there are any compensation packages either in cash or kind available for participants it must be clearly spelt out in terms of the actual amount or gift to be given, conditions for receiving the package and when it will be made) Usually compensation should be given at the end of the study)

Additional Cost

(Any additional cost to the participant that may result from participation in the research should be stated)

This does not apply to all studies

Voluntary Participation and Right to Leave the Research

(A statement that the research is voluntary and participant can withdraw without penalty)

Termination of Participation by the Researcher

(Any anticipated circumstances under which the participant's participation may be terminated by the investigator without regard to the participant's consent must be specified)

(This does not apply to all studies)

Notification of Significant New Findings

(A statement that significant new findings developed during the research that may relate to the participant's willingness to continue participation will be provided to the participant)

(This does not apply to all studies)

Contacts for Additional Information

(Explain whom to contact for answers to pertinent questions about the research and whom to contact in case of research-related injury. Give names and mobile numbers that are accessible to the participant)

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: nirb@noguchi.ug.edu.gh



VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title (***name of research***) has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

Date

Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

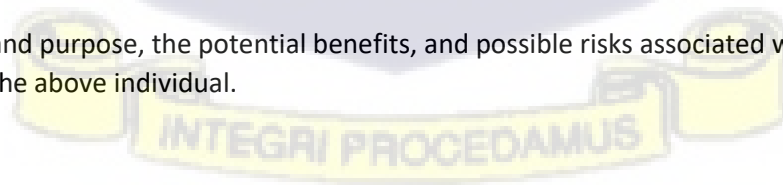
Date

Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

Date

Name Signature of Person Who Obtained Consent



Appendix 3: Schedule of Activities & Budget

The table below shows the timelines or schedule of activity for the study. The development of this proposal begun in March, 2023 and the fully developed proposal was be submitted to the Institutional Review Board of NMIMR in July, 2023.

After submission of the proposal, training of research assistants and pre-testing of the questionnaire took place in July followed by data collection in July and August. Data entry, processing and analysis was done from August through to September with the final dissertation being compiled in October. Submission of the dissertation was done on Tuesday, 31st October 2023.

Activity	April	May	June	July	Aug.	Sept.	Oct.
1. Development of proposal							
2. Submission of proposal to Ghana Health Service Ethics Review Committee							
3. Training of Research Assistants/ Pre-testing of questionnaires							
4. Data collection							
5. Data entry							
6. Data analysis							
7. Compilation of final dissertation							
8. Submission of dissertation to SPH, UG.							

Study budget

Description	Total Cost (GHS)
Transportation	300.00
Training of Research Assistants	500.00
Printing of questionnaires	500.00
Communication expenses	150.00
Data analysis software	1,117.00
Miscellaneous	300.00
Grand Total	2,867.00

3.18.1 Budget Justification

Transportation: an amount of GHS300 was made available for the researcher and assistants to cater for transportation costs to and from the study area and any other destination pertaining to the research.

Training of research assistants: considering the relatively large sample size, the researcher needed two research assistants to be trained and assist in data collection. An amount of GHS500 was dedicated to training and an incentive at the end of data collection.

Printing of questionnaires: GHS500 was budgeted to cater for printing of questionnaires for the pilot test and the main data collection.

Communication expenses: GHS150 was dedicated to cover communication costs between the researcher and assistants as well as respondents who may need further clarification.

Data analysis software: for professional and accurate processing and analysis of data collected, the StataBE 17 software was purchased.

Miscellaneous: an amount of GHS300 was budgeted for any extra costs or eventualities that arose during the course of the study.





NOGUCHI MEMORIAL INSTITUTE
FOR MEDICAL RESEARCH (NMIMR)
COLLEGE OF HEALTH SCIENCES
INSTITUTIONAL REVIEW BOARD

2nd August 2023

ETHICAL CLEARANCE

FEDERALWIDE ASSURANCE FWA 00001824

IRB 00001276

NMIMR-IRB CPN 015/23-24

IORG 0000908

On 2nd August 2023, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

TITLE OF PROTOCOL : Utilization of sexual and reproductive health services by students of the University of Ghana

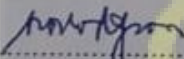
PRINCIPAL INVESTIGATOR : Adelle Myra Nkansah, MPH Cand.

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

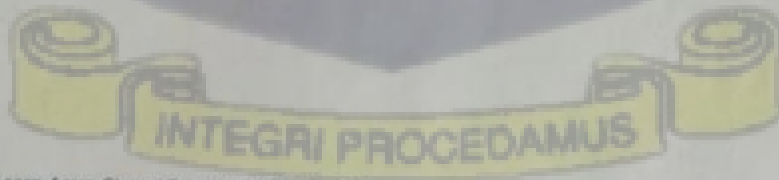
Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 1st August 2024. You are to submit annual reports for continuing review.

Signature of Chair: 

Dr. Abraham Hodgson
(NMIMR – IRB CHAIR)



P. O. Box LG 581, Legon, Accra, Ghana | Tel: +233 (0) 302-2916438
Email: nirb@noguchi.ug.edu.gh | www.noguchimedres.org | www.ug.edu.gh

