UNIVERSITY OF CAPE COAST

UTILISATION OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES AMONG YOUNG PEOPLE WITH DISABILITIES IN GHANA

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BY

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature……………………………………Date…………………

Name: Abdul-Aziz Seidu

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature…………..................Date………………

Name: Prof. Akwasi Kumi-Kyereme

Co-Supervisor's Signature…………………………….Date…………………

Name: Prof. Eugene K.M Darteh

ABSTRACT

Employing the health care utilisation model, the study sought to assess the utilisation of sexual and reproductive health services (SRHS) among young people with disabilities (YPWDs) in Ghana. A descriptive cross-sectional survey was carried out among 2127 young people with disabilities who were purposely selected from 16 special schools in Ghana. Both bivariate and multivariate analyses were done to examine the associations between some background characteristics and utilisation, challenges and barriers of accessing SRHS. The results provide evidence that there is high utilisation of SRHS by YPWDs in Ghana. Religion, ecological zone and self-rated health status were found to be the main factors associated with utilisation of SRHS among YPWDS. It was also evident that YPWDs face challenges and barriers in their quest to accessing SRHS. The major challenges and barriers were financial constraints, problem of communication and physical barriers. These challenges and barriers were associated with sex, educational level, ecological zone, disability type and self-rated health status. It was recommended that to sustain high utilization of SRHS, the Ministry of Health (MOH) and the Ministry of Education (MOE) should strengthen health education to YPWDs on the need to use SRHS, government of Ghana should make it an intervention priority to produce some of the SRH information in electronic forms for young people who are visually impaired to have access to SRHS, the MOH collaboration with the MOE should make it an intervention priority to strengthen the training on the use of sign language to a special group of nurses to attend to the needs of the hearing impaired when they visit health facilities for SRHS and the Government of Ghana should strengthen the free healthcare services that YPWDs access as this can reduce SRH problems they face including HIV and AIDS.

KEY WORDS

Barriers

Challenges

Disability

Utilisation

Young people

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DEDICATION

To my family and friends

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LIST OF ABBREVIATIONS

GHS	Ghana Health Service
GSS	Ghana Statistical Service
PWDs	Persons with Disabilities
SRH	Sexual and Reproductive Health
SRHS	Sexual and Reproductive Health Services
STI	Sexually Transmitted Infections
UN	United Nations
WHO	World Health Organisation
YPWDs	Young People with Disabilities
ICPD	International Conference on Population and Development
ICIDH	International Classification of Impairments, Disabilities and Handicaps
ICF	International Classification of Functioning, Disability and Health
UNFPA	United Nations Population Fund

CHAPTER ONE

INTRODUCTION

Background to the Study

Young people aged 10–24 years constitute 26 per cent of the world's population (United Nations, [UN], 2011). Out of the global estimates, there are about 180 to 220 million young people with disabilities worldwide and nearly 80 per cent of them live in developing countries (WHO, 2011). Young people's sexual and reproductive health (SRH) has often been recognised as an important public health issue in both developing and developed countries (Abajobir & Seme, 2014; Amankwaa, Abass, & Gyasi, 2017; Feleke, Koye, Demssie, & Mengesha, 2013; Odo, Samuel, Nwagu, Nnamani, & Atama, 2018; WHO, 2015).

Sexual and reproductive health problems remain the leading causes of ill health and death worldwide especially among young people (Fatusi, 2016; Gore et al, 2011; Mprah, 2013). Sexual and reproductive health service delivery is defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and solving sexual health problems (Feleke, Koye, Demssie, & Mengesha, 2013; Roudi-Fahimi & Ashford, 2008). The sexual and reproductive health services include universal access to accurate sexual and reproductive health information, range of safe and affordable contraceptive methods, sensitive counselling, quality obstetric and antenatal care for all pregnant women and girls, and the prevention and management of sexually transmitted infections, including HIV (Odo et al. 2018).

Investing in the health of young people is essential for the economic and social development of any nation (Chandra-Mouli et al., 2015; Godia, Olenja, Hofman & Van Den Broek, 2014). Comparatively, the young people from sub-Saharan Africa have an elevated risk of suffering from sexual and reproductive health (SRH) problems than their counterparts in other parts of the world (Godia et al., 2014; WHO, 2010). This is even more serious among the young people with disabilities (Kassa et al, 2016).

Most of these young people including those with disabilities engage in risky sexual behaviours, such as low level of condom and contraceptive use, having multiple sexual partners, having sex with a casual partner (Aderemi, Mac-Seing, Woreta & Mati, 2014; Agarwal & Muralidhar, 2016; Alemu & Fantahun, 2011; Kassa, et al., 2014; Maart & Jelsma, 2010; Mall & Swartz, 2012; Shandra & Chowdhury, 2012; Touko et al., 2010) and substance use (Aderemi et al., 2014; Smith & Pick, 2015; Kassa et al., 2014; Maart & Jelsma, 2010; Mall & Swartz, 2012). The low levels of condom use may be related to low levels of self-efficacy in sexual negotiation as well as barriers in getting access to them (Dawood et al., 2006).

Despite the engagement of young people in risky sexual behaviours, and their contraction of sexually transmitted infections including HIV and AIDs, there have been inconsistent findings in the use and access to sexual and reproductive health services. Both disabled and non-disabled young people report lower levels of utilisation of sexual and reproductive health care services (Ahumuza, Matovu, Ddamulira & Muhanguzi, 2014; Alemu & Fantahun, 2011; Arulogun, Titiloye, Afolabi, Oyewole, & Nwaorgu, 2013; Kassa et al., 2016; Kett et al., 2011; Kijak, 2011; Radomski, Jarząbek-

Bielecka, Sowinska-Przepiera, & Milewczyk, 2010; Tanabe, Nagujjah, Rimal, Bukania & Krause, 2015; Trani et al., 2011). The low utilisation has consequences such as contraction of STDs including HIV and AIDs and unwanted pregnancies.

For young people with disabilities, the low utilisation of SRHS has been attributed to a number of impediments. These impediments to receiving the required services include: social attitudes and cultural assumptions (Mprah, 2011), and physical barriers in clinical settings, transport challenges, long waiting times, lack of confidentiality, need for escort, disability related stigma (Kuffour, 2013), high cost, illiteracy, privacy and confidentiality offered at SRH centres, limited amount of time allocated for consultation, lack of knowledge of healthcare providers on how to communicate to young people (Ganle et al., 2016; Kuffour, 2013; Mprah 2013) and poor interpretation skills of sign language interpreters (Mprah, 2013). Also, discrimination against YPWDs and lack of understanding has also been reported as barriers to service usage (see Mensah, 2015; Mprah, 2013). There is interrelationship among these barriers and they work hand in hand to affect young people negatively and more particularly YPWDs ability to utilise effectively SRHR services hence the potential of putting their lives at a higher risk of jeopardising their sexual and reproductive health (PPAG et al., 2017).

In order to reduce some of these impediments, there has been a global attention on young people’s utilisation of sexual and reproductive health services (Aninanya, et al., 2015). For instance, in 1994, when the International Conference on Population and Development (ICPD) took place in Cairo, social inclusion, human rights and the importance of addressing the needs and development of young people were brought to a lime light (Jejeebhoy, Zavier, & Santhya, 2013). As a result, many governments have adopted various strategies to address sexual and reproductive health needs of young people (Mbizvo & Zaidi, 2010). However, the relative high number of young people in low and middle-income countries and high related sexual and reproductive health problems such as contraction of sexually transmitted diseases, unwanted pregnancy, maternal mortality and unsafe abortion indicate a greater need for more improvements in service utilisation (Bearinger, Sieving, Ferguson, & Sharma, 2007; Secor-Turner, Kugler, Bearinger, & Sieving, 2009).

Despite the mechanisms put in place in Ghana such as National Adolescent Sexual and Reproductive Health Policy (2000, 2015), Adolescent Health Service and Policy (2017) by the Ghana Health Service and National HIV and AIDS and STIs Policy initiatives (National Population Council, 2017) there is still low patronage of sexual and reproductive health services among young people. Again, it is a well-established fact that sexual and reproductive health and rights (SRHR) of young people with disabilities has been neglected (Anafi, Mprah & Sekyere, 2014; Kassa, Bekele, Luck, & Riedel-Heller, 2016; Houweling, Ronsmans, Campbell & Kunst, 2007; Trani et al., 2011; United Nations, 2011).

In Ghana, the policies on sexual and reproductive health (Adolescent Reproductive Health Policy of Ghana) mainly focus on the general population. The implementation strategies to achieve the objectives, goals and targets for the policy largely ignore that of the disabled. The neglect is perhaps influenced by the socio-cultural viewpoint of disability that people with disability are not regarded to be prominent in society (Trani et al., 2011).

Young people with disabilities (YPWDs) are more likely to face discrimination and severe social, economic, and civic disparities (Ganle et al. 2016; Mitra, Posarac & Vick, 2013). For many young persons with disabilities, inaccessibility to healthcare, exclusion, isolation, and abuse, as well as lack of educational and economic opportunities are very common (Kassa, Bekele, Luck, & Riedel-Heller, 2016). As a group, young persons with disabilities are among the most marginalised and poorest youth in the world (United Nations, 2011). Their basic rights are not well met and societal acceptance is often out of reach (Anafi, Mprah & Sekyere, 2014; United Nations, 2011). Young people with disabilities also have poorer health outcomes, lower education achievements, less economic participation and higher rates of poverty than non-disabled counterparts (Kassa, Bekele, Luck, & Riedel-Heller, 2016).

YPWDs in Ghana just like in other parts of the world face a lot of challenges such as social exclusion, stigma and marginalisation (Adam et al. 2017; GSS, 2013). Adam et al. (2017) made it clear that the mistreatment meted out on people with disabilities is influenced by the social and cultural connotations ascribed to disability. Most people in various cultural settings perceive disability to be a consequence of a wrath that people who have committed various sins are incurring from the gods (Adam et al. 2017; Naami, Hayashi & Liese, 2012). It is also a norm in certain societies to ascribe certain supernatural powers to some animals. Some of these animals include crocodiles, snakes, birds and other totems that are believed to possess special powers. As a result of that whenever there is a mishandling of such animals the person involved can give birth to a disabled child (Adam et al. 2017; Avoke, 2002).

It is a well-established fact that sexual and reproductive health and rights (SRHR) of young people with disabilities has been neglected (Anafi, Mprah & Sekyere, 2014; Kassa, Bekele, Luck, & Riedel-Heller, 2016; Trani et al., 2011; United Nations, 2011). Some policies on sexual and reproductive health (Adolescent reproductive health policy of Ghana) mainly focus on the general population. The implementation strategies to achieve the objectives, goals and targets for this policy largely ignore that of the disabled. This neglect is perhaps influenced by the socio-cultural viewpoint of disability (Trani et al., 2011).

The right to health and access to sexual and reproductive health services and information among young persons with (YPWDs) is widely acknowledged (Trani &Bakhshi 2008). Despite this, sexual and reproductive health rights, information and services are inaccessible to disabled young people compared to able-bodied young people (Trani et al., 2011).

Statement of the Problem

According to the 2010 Population and Housing Census of Ghana, about three per cent (737, 743) of Ghana's population have various forms of disabilities. From this number, about 2 per cent are young people (Ghana Statistical Service [GSS], 2013). Sexual and reproductive health problems accounts for a significant proportion of disability-adjusted life years (DALYs) among young people (Gore et al., 2011; Mokdad et al., 2016). Young people in less developed countries have higher burden of diseases and higher mortality rates than those in the developed countries (Fatusi, 2016; Gore et al., 2011; Patton et al., 2016a; Patton et al., 2016b;). Globally, sub-Saharan Africa is the region with the highest disability-adjusted life years for the 10–24 years age group (208 per 1000), followed by South East Asia (154 per 1000) (Gore et al., 2011). Unsafe sex and lack of contraceptives use are part of the risk factors for the DALYs among young people (Gore et al., 2011).

There are international laws that seek to protect the rights and welfare of people with disability. Access to healthcare is argued as the fundamental human rights and should be received at the highest attainable level. As a matter of fact it is identified in many human rights instruments including the Convention on the Rights of Persons within Disabilities, which states in article 25 states that:

"persons with disabilities have the right to the highest attainable standard of health without discrimination on the basis of disabilities (United Nations, 2006). This right is further supported by the sustainable development goals (SDGs) 3 which also seeks to ensure healthy lives and promote well-being for all at all ages".

In Ghana's quest to seek the welfare and rights of PWDS, there are legal frameworks and instruments in place. The first of these instruments is the 1992 Constitution of the republic of Ghana. The Constitution guarantees the fundamental human rights of all persons in Ghana, which obviously include PWDs. Second, in furtherance to the constitution, the Government of Ghana instituted the Persons with Disability Act, 2006, (Act 715) to indicate how committed it is to tackle the plight of PWDs. The Act deals with issues such as rights, employment, education, transportation, housing facilities, effective health care, adequate medical rehabilitation services, generation and dissemination of relevant information and participation of PWDs in cultural activities. In terms of healthcare, the act enjoins Ghana's Ministry of Health to make provisions for free general and specialised medical care, rehabilitative treatment and appropriate assistive services for persons with disabilities. Furthermore, the act also seeks to ensure that the study of disability is incorporated into the health training institutions. This is to safeguard that the services that the healthcare services that will provided can also meet the needs of those with disabilities.

The training will make it feasible for the healthcare providers to be equipped with the required knowledge such as sign language and other skills to provide both general and specialised healthcare services to them (Government of the Republic of Ghana, 2006). Aside this, the act also mandates access to public places as well as integration of the needs of people with disabilities into the design, construction and operation of transport network (Ganle et al., 2016; Government of the Republic of Ghana, 2006). In addition, Ghana has signed, ratified and adopted international agreements, such as the Convention on the Rights of PWDs and the African Decade of the Disabled Persons which seek to protect the fundamental freedoms and human rights of all PWDs and to promote and respect their inherent dignity (PPAG, et al., 2017).

Despite these statutes and conventions, PWDs have continued to experience various challenges that prevent their full and effective participation in society, including the full enjoyment and realization of their sexual and reproductive health and rights (PPAG et al., 2017 p10). In particular, young people with disabilities are more likely to be stigmatised and discriminated against than their counterparts who have no disability (Ganle et al. 2016; Mitra, Posarac & Vick, 2013). In the context of sexual and reproductive health, young people with disabilities have largely been ignored (Morrison et al. 2014). For example, a review on disability in sexual and reproductive health policies and research in Ghana concluded that persons with disabilities have received less attention (Anafi, Mprah, & Sekyere, 2014).

A number of studies have outlined the various healthcare challenges that people with disabilities face. These impediments to receiving the required healthcare services include, lack of knowledge of healthcare providers on how to communicate to the disabled (Ganle, et al., 2016; Kuffour, 2013; Mprah 2013), social attitudes and cultural assumptions (Mprah, 2011), and physical barriers in clinical settings, transport challenges, long waiting times, lack of confidentiality, need for escort, disability related stigma (Kuffour, 2013) illiteracy among deaf people, privacy and confidentiality offered at SRH centres, limited amount of time for allocated for consultation, and poor interpretation skills of sign language interpreters (Mprah, 2013). Also, discrimination against PWDs and lack of understanding of the plight of PWDs has also been reported as barriers to services (see Mensah, 2015; Mprah, 2013). There is interrelationship among these barriers and they work hand in hand to negatively affect PWDs ability to effectively utilise SRHR services hence the potential of putting the lives at risk (PPAG, et al. 2017).

Several studies have been conducted in Ghana over the past decade on the utilisation of sexual and reproductive health services among young people. Most of these studies in Ghana focused on the young people without disabilities (Abajobir & Seme, 2014; Addo, & Gyamfuah, 2015; Aninanya et al., 2015; Dapaa et al., 2015; Amankwaa, Abass, & Gyasi, 2017; Kyilleh, Tabong, & Konlaan, 2018; Teye-Kwadjo, Kagee, & Swart, 2017). Although, some studies on SRH have focused on the disabled in Ghana, some have focused on only the hearing impaired (Mprah, 2013). Others have also looked at it among disabled women (Ganle et al., 2016) with some focusing on healthcare barriers confronting persons with disabilities (Badu, Agyei-Baffour, & Opoku, 2016; Badu, 2015), attitude of service providers (Badu, Opoku, & Appiah, 2016) and perceptions about barriers to sexual and reproductive health (Mprah, 2013).

Notwithstanding this growing body of research on SRH issues in Ghana, there has not been any national representative study on the utilisation of SRHS among young people with disabilities. Research evidence has also shown that people with disabilities are often excluded from living fully sexual and sexually healthy lives, facing a variety of structural and social barriers which restrict both the expression of their sexuality and their access to and use of SRHs so there is the need to look at their level of using SRHS and the challenges and barriers they face in their quest to the usage (Carew et al., 2016; Groce et al., 2013). Again, as emphasized in the World Report on Disability, the sexual health of people with disabilities remains a neglected area and therefore, it needs to be put on the research agenda (WHO, 2011). This study, therefore seeks to fill this knowledge gap by assessing the utilisation of sexual and reproductive health services among young people with disabilities in Ghana.

Objectives of the Study

The main aim of the study was to assess the level of utilisation of SRHS, challenges and barriers YPWDS face in accessing SRHS so as to reduce the challenges and barriers YPWDS face in accessing SRHS in Ghana. The specific objectives were to:

1. Examine the use of sexual and reproductive health services among young people with disabilities;
2. Examine the challenges to accessing sexual and reproductive health services among young people with disabilities in Ghana and;
3. Assess the barriers to the utilisation of sexual and reproductive health services among young people with disabilities in Ghana.

Hypotheses of the Study

$H_0$1: There is no statistically significant association between socio-demographic characteristics and utilisation of SRHS;

$H_0$2: There is no statistically significant association between socio-demographic characteristics and ever faced a challenge in accessing SRHS;

$H_0$3: There is no statistically significant association between socio-demographic characteristics and ever faced a barrier in accessing SRHS.

Significance of the Study

The findings of this study have the potential to make significant contributions to policy and literature. In relation to policy, the findings of this study stand to make several contributions.

First, this study has the potential to inform policy makers on the SRHR needs of young persons with disabilities and can help in designing specific services purposely for them. The addressing of SRHR needs of this marginalised group in society can aid to influence their sexual and reproductive behaviour positively.

Second, this study has the potential to crave the indulgence of policy makers to develop policies and interventions aimed at equipping young persons with disabilities with specialised insight on their SRH rights. Based on this, interventions targeting specific knowledge areas can be designed and relayed to young disabled people.

The provision of this specialised information can help them to make informed decisions regarding their SRH. Relatedly, the findings of this study can be used to design specific educational content as part of their curriculum in order to enhance their knowledge and awareness on SRHR.

In relation to literature, the study will be able to fill the literature gap on SRHR needs of young people with disability in Ghana. Societal negative attitude and perception towards YPWDs often lead to their social exclusion. Some of the disabled children are also misconstrued to be children from rivers and forest and as a matter of fact they are being subjected to infanticide just to send them back to where they are perceived to belong (Adam et al., 2017; Kassah, Kassah & Agbota, 2012; Naami et al., 2012). Other explanations ascribed to disability include witchcraft and sorcery. As a result of this, non-disabled people in society see nothing wrong to abandon disabled persons and this has led to their exclusion in various aspects of life (Adam et al., 2017). This study, therefore, stands to provide empirical evidence on the challenges young people with disability face in accessing sexual and reproductive health care services.

Limitations of the Study

There were some challenges and limitations that need to be acknowledged in the fieldwork and the study in general.

Firstly, although the study intended to assess the utilisation of sexual and reproductive health services among young people with disabilities, this was limited to only two groups of disabled young people thus the visually impaired and the hearing impaired because the researcher did not have the expertise on intellectual disability.

Second, some of the respondents were excluded due to the fact that they could not use the brails and also, some of the respondents had multiple disabilities (visually impairment, hearing impairment and intellectual disabilities).

One major challenge was also that some of the SRH terminologies did not have a sign language. This was solved by explaining to the respondents for them to understand fully before we could proceed.

Organisation of the Study

The study is organised in five chapters. Chapter One deals with the background to the study, statement of the problem, purpose of the study, objectives of the study and significance of the study. Chapter Two discusses the literature on use, challenges and barriers to the use of SRHS. Theoretical, as well as the conceptual frameworks are also discussed. The third chapter focuses on the methods of the study. The issues discussed are the study design, target population, source of data, sample and sampling procedures and ethical considerations. Chapter Four presents the results and the discussion. Chapter Five contains the summary of the main findings, conclusions, recommendations and suggestions for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

In this chapter, the relevant literature associated with utilisation of sexual and reproductive health services among young people with disabilities are reviewed. This chapter comprises the empirical and the theoretical literature and the conceptual framework. The empirical literature explores specific issues on level of utilisation of sexual and reproductive healthcare services among young people with disabilities, challenges to the utilisation of sexual and reproductive healthcare services among young people and barriers to the utilisation of sexual and reproductive healthcare services among young people. The theoretical literature on disability focuses on the medical, social model and bio psychosocial model of disability. The theoretical literature on health models focuses on Pender Health Promotion Model and the Health Care Service Utilisation Model. The Conceptual framework is also looked at.

Concept of Disability

Disability is complex, dynamic, multidimensional, and contested (WHO, 2011). There is no universal definition for disability in the literature. It is most commonly defined as limitations or impairments in major daily life activities, though the exact types of limitations or activities often depend on the context. For example, in Title I of the Americans with Disability Act (ADA), Congress defines disability as a physical or mental impairment that substantially limits a major life activity; a record of such an impairment; or being regarded as having such an impairment (Meade, Mahmoudi & Lee, 2015).

The 1975 UN Declaration on the Rights of Disabled Persons states:

> *the term 'disabled person' means any person unable to ensure himself or herself, wholly or partly, the necessities of a normal individual and/or social life, as a result of deficiency, either congenital or not, in his or her physical or mental capabilities.*

In 2000, in the United States of America, individuals were classified as having a disability if they endorsed having any of the following: a long-lasting condition such as blindness or impairments in vision or hearing; a condition that substantially limited one or more basic physical activity (e.g. walking, climbing stairs, reaching) or a physical, mental or emotional condition for at least 6 months duration that caused difficulty with learning, concentration or memory, dressing, bathing or getting around the house, going outside the home alone, and/or working at a job or business (Waldrop & Stern, 2003).

The World Health Organisation (WHO, 2011) defines disability as the consequence of an impairment that may be physical, cognitive, mental, sensory, emotional, developmental, or some combination of these. In the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) (United Nations, 2006), disability is defined as those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (United Nations, 2006).

However, disability is a complex and contested concept, in constant flux (Shakespeare, 2015; WHO, 2011), and with no unified definition (Iriarte, 2016). In the World Report on Disability (WHO, 2011), based on the

International Classification of Functioning, Disability and Health (ICF) (WHO, 2011 p.4), disability is described in the following way: Disability is the umbrella term for impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors). The strength of the ICF concept is that it offers a common language to study the dynamic interaction between health condition, environmental factors and personal factors and therefore enabling to define what can improve the life situation of disabled people (Hollenweger, 2014). It looks beyond the medical condition and includes the social dimension of a person (Eide et al., 2011).

From the 2010 Population and Housing Census report of Ghana, persons with disabilities (PWD) have been defined as those who are unable to or are restricted in the performance of specific tasks/activities due to loss of function of some part of the body as a result of impairment or malformation (GSS, 2013). In Linton’s (2010) view, disability may include incapacity, a disadvantage, deficiency, especially a physical or mental impairment that restricts normal achievement; something that hinders, something that incapacitates or disqualifies. Appunni and Deshpande (2009) also defined disability as a considerable range of human differences–including those defined by age, health, physical and mental abilities, and even economic status–that have been associated with some form of social restrictions or material deprivation.

The view of Barnes (2010) on disability is not entirely different from the rest. According to him, it is defined as the malfunctioning, disturbance or loss in the normal functioning of physical, mental or psychological processes, or a difficulty in the ability to learn, or adjust socially, which interferes with a person's normal growth and development.

The International Disability Caucus (IDC) have also defined disability as the disadvantage or restriction of activity caused by a society, which takes little or no account of people who have impairments, and thus excludes them from mainstream activity (IDC, 2004). The International Disability Caucus (IDC, 2004) proposed the following wording:

> *A person with a disability is an individual whose ability to lead an inclusive life in the community of his/her own choice is limited by the separate or concomitant impact of physical, economic, social and cultural environments and/or personal factors that interact with physical, sensory, psychosocial, neurological, medical, intellectual or other conditions that may be permanent, temporary, intermittent or imputed(p.7).*

Under the 1995 Disability Discrimination Act of UK (Now called the Equality Act, 2010), a person will be deemed to have a disability if he/she has a mental or physical impairment, which is long term and has a substantial adverse effect on normal day-to-day activities of the person. An impairment will be held to be of long-term effect if it has lasted 12 months, or is likely to last 12 months or for the rest of the person's life. There are some conditions where the person is deemed to have disability, whether or not that condition has yet had any effect on that person's ability to carry out day-to-day activities (Schulze, 2010).

The Asian Development Bank (ADB) says disability is a multidimensional concept with both objective and subjective characteristics. When interpreted as an illness or impairment, disability is seen as fixed in an individual's body or mind. When interpreted as a social construct, disability is about the life of people with disabilities and their interaction with the community and the environment (ADB, 2006).

Types of Disability

Disabilities can be classified according to the nature of impairment, including visual disability where the sight is impaired. There are various categories that include far or near sightedness where the individual has problems seeing either distant or near objects or the person is not able to see totally. It varies with various degrees; hence, in most cases, persons with this condition are able to access technology in the form of eye glasses or contact lenses which address the issue and the person can see normally (Crow, 2008). Another category of visual impairment is complete and partial blindness where the person has complete loss of sight either in one or both eyes. The other form of visual impairment is colour blindness, which according to Crow, is classified as a mild disability.

Hearing and speech impairment are forms of hearing impairments. They are mainly the partially impaired who are 'hard of hearing', and in most cases, can do so through hearing aids or hear loud sounds; while others are completely deaf, hence unable to perceive any sound. These persons normally communicate using sign language. In most cases, the persons with hearing impairment are also not able to communicate verbally since they cannot perceive the language (Whetnall & Fry, 2014; WHO, 2001).

Physical disabilities are types of disabilities that fall under the category where the mobility of the person is restricted. This can be due to loss, paralysis or other kinds of impairment of limbs or parts of the body that restrict the movements of the person. Various gadgets like wheel chairs or clutches are used to help them move from one place to the other (McDaniel, 2013; WHO, 2001).

Learning/cognitive disability encompasses different types of disabilities that limit the brain functioning of an individual. It hinders mental growth and individuals suffering from it usually have a hard time in thinking, solving, expressing and using languages (WHO, 2001). While there are various types of learning impairments, some of which are not well recognised, the most commonly known is the mental disability where the individual is not able to construe life issues mentally and sometimes such persons can be a danger to themselves and to others if not well attended to. Some of these forms of disabilities are well understood like the physical forms that are visible, while some of them are not acknowledged socially as being disabilities, e.g. mental disability. Studies on disabilities have gained more prominence in recent years. There has been development in the area of research on disability since 1992 when disabled researchers and their non-disabled peers set out to radically alter the basis of disability research production (Beazley et al., 2008: p.11).

Disability in Ghana

According to Badu, Opoku and Appiah (2016), in Ghana, the plight of people with disability gained recognition when there was an establishment of a rehabilitation unit in 1943 in Accra called the 37th General Military Hospital.

The main motive for the creation of the unit was for the reintegration of African soldiers who sustained various forms of injuries after the Second World War back into the workforce. This programme was later handed over to voluntary service organisations in 1947. The government in 1950 absorbed the voluntary sector and took over the practical aspect of the work, leaving voluntary sectors to advocacy (Grischow 2011). In 1960, a massive registration programme was, however, launched in the country after 'John Wilson' estimated that 100 000 Ghanaians lived with some form of disability.

This informed the government of that time and led to the establishment of rehabilitation units and special education programmes to provide educational needs for people with disabilities all over the country. During Nkrumah's regime, the rationale for this programme was also to integrate people with disabilities into the Ghanaian workforce. The work of organisations dealing with disability established in the late 1960s contributed greatly to the formation of many disability movements later and to the present day (Grischow, 2011).

Again, in an attempt to fight discrimination against people with disabilities as they seek employment, Legislative Instrument (632) labour regulation was passed in 1969. The legislative instrument gave 0.5% quota to people with disabilities in all establishments. As part of this effort, offices were created in regions and districts to register and offer jobs to people with disabilities (The Danish Council of Organisations of Disabled People, 2006). The Ghana Federation of Disability Organisaion (GFD) was also formed in 1987. In the year 2006, idea of Inclusion Ghana also begun when the first discussions were held between the various Disabled People Organisations in

Ghana working with persons with intellectual disabilities (PWID) to create a platform that unifies the voices of PWID and their families; however, it was difficult to agree on a common structure then (Inclusion Ghana, 2011; qGhana Federation of the Disabled, 2013).

From the 2010 population and housing census report, 42 per cent of PWDs could not read or write in any language. There is also variation in the levels of illiteracy among regions. The proportion of PWDs, 11 years and older, who were not literate in 2010, ranged from 20.4 per cent in Greater Accra to 73.3 per cent in both Northern and Upper East regions. Thirty five per cent of the PWDs were literates in English and a Ghanaian language. The proportions literate in English and a Ghanaian language were higher in the Ashanti and Greater Accra regions (43.8% and 43.3% respectively) and very low (8.8%) in Upper East. Furthermore, 14.3 per cent were literate in English only. The proportion of PWDs that were literate in a Ghanaian language only was 7.5 per cent and ranged from 0.9 per cent in the Upper East to 12.8 per cent in the Volta region (GSS, 2013)

Sexual and Reproductive Health and Rights

WHO (2015 p.1) describes sexual health in the following way: “Sexual health today is widely understood as a state of physical, emotional, mental and social wellbeing in relation to sexuality”. According to WHO, it encompasses not only certain aspects of reproductive health – such as being able to control one’s fertility through access to contraception and abortion, and being free from sexually transmitted infections (STIs), sexual dysfunction and sequel related to sexual violence or female genital mutilation–but also, the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence.

WHO defines SRH as a state of complete physical, emotional, mental and social well-being in relation to sexuality, in all matters relating to reproductive system and its functions and processes. It is not merely the absence of disease, dysfunction or infirmity. Renzaho, Kamara, Georgeou and Kamanga (2017) made it clear that sexual and reproductive health and rights (SRHR) broadly applies the concept of human rights to sexuality and reproduction, and is concerned with the intersection of four distinct fields sexual health, sexual rights, reproductive health, and reproductive rights of sexual and reproductive wellbeing (Family Care International, 2015; Sen, 2014).

To maintain one's sexual and reproductive health, access to accurate information (e.g. seek, receive, and impart information related to sexuality) and a choice of safe, effective, affordable contraception options are key (Family Care International, 2015; Renzaho et al., 2017; United Nations Population Fund, 2018). A human rights framework emphasizes access to information to empower individual freedom of choice with respect to deciding whether to be sexually active or not (e.g. sexual debut); the pursuit of a satisfying, safe, and pleasurable sexual life; choosing a partner; consensual sexual relations and consensual marriage; protection from sexually transmitted infections (STIs); and family planning (e.g. whether or not, and when, to have children) (Family Care International, 2015). For Renzaho et al. (2017) the availability of, and access to, health and information services for disabled young people is also essential to good sexual and reproductive health.

Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled. The Committee on Economic Social and Cultural Rights has stated that the right to the highest attainable standard of health has four essential elements: availability, accessibility, acceptable and quality (Center for Reproductive Rights, 2003). The availability of care includes the availability of facilities, goods and services as well as programs that enable access to reproductive health services including STIs (Evan, Kaufman, Cook & Zeltzer, 2006). It also requires that skilled personnel should provide services. Hence, persons with disabilities must be able to access sexual and reproductive health services. It includes existence of hospitals, clinics, and trained medical personnel among others.

Constitutional and Legal Provisions on Disability

The Right to Health

The right to health is a universal human right, meaning that it is a right everyone is entitled to and it is upheld by the United Nations. In broad terms, this right can be understood to encompass a right to health care and a right to 'healthy' social conditions such as adequate sanitation, nutrition, housing and safe drinking water. These two components must be available, accessible, accepting and quality for all persons. The WHO (1946) states that the right to health is a fundamental part of our human rights and of our understanding of a life in dignity. This was first pronounced in the 1946 Constitution of the World Health Organization (WHO), whose preamble defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. The preamble further states that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.”

It is important to note that the right to health is not a limitless right to medical treatment or social care, nor should it be understood as the right to be healthy. Instead, it should be understood as the right to enjoy a variety of facilities and conditions, which the state is responsible for providing, and which are necessary for the attainment and maintenance of good health (Inclusion Ghana, 2013).

Whilst the right to health applies to all individuals equally, the right to health has been considered further in relation to persons with disabilities in the Convention on the Rights of Persons with Disabilities (CRPD). This is in part due to the particular health needs and challenges faced by persons with disabilities.

Persons with Disability Act of Ghana and other Provisions in Ghana

In Ghana’s quest to seek the welfare and rights of PWDS, it has put legal frameworks and instruments in place. The first of these instruments is the 1992 Constitution of the Republic of Ghana. The Constitution guarantees the fundamental human rights of all persons in Ghana, which obviously include PWDs. Second, in furtherance to the constitution, the Government of Ghana instituted the Persons with Disability Act, 2006 (Act 715) to indicate how committed it is to tackle the plight of PWDs. Third, is the patient charter of the Ghana health service which seeks to protect the rights of the patient in the

Ghana Health Service in terms of the right of the individual to an easily accessible, equitable and comprehensive health care of the highest quality within the resources of the country, respect for the patient as an individual with a right of choice in the decision of his/her health care plans, the right to protection from discrimination based on culture, ethnicity, language, religion, gender, age and type of illness or disability and the responsibility of the patient/client for personal and communal health through preventive, promotive and simple curative strategies.

The Persons with Disability Act of Ghana was passed in June 2006. During this period, PWDs in Ghana were counted among those whose plight had been notified, as most countries in Africa had no legislative instrument specifically designed for the disabled. Again, this was considered as a great achievement since there was a long struggle by the Ghana Federation of the Disabled (GFD), and civil society organizations to get the parliament of Ghana enact a law to enforce the provisions of Article 29 of the 1992 Constitution of Ghana (Articles 29 and 37[2] [b] which also provides a legal framework to enable persons with disabilities to exercise their civil, political, social, economic and cultural rights on an equal basis with others. Some researchers described the passage of the Act as a noteworthy milestone in Ghana's human rights discourse since this was an initiative to seek to the general well-being of PWDs and also to help them take active part in the mainstream society (Asante & Sasu, 2015; Eleweke, 2013; Oduro, 2009)

The Act deals with issues such as rights, employment, education, transportation, housing facilities, effective health care, adequate medical rehabilitation services, generation and dissemination of relevant information and participation of PWDs in cultural activities. In terms of healthcare, the Act enjoins Ghana's Ministry of Health to make provisions for free general and specialised medical care, rehabilitative treatment and appropriate assistive services for persons with disabilities. Furthermore, the Act also seeks to ensure that the study of disability is incorporated into the health training institutions. This is to safeguard that the services that the healthcare services will provide can also meet the needs of those with disabilities. The training will make it feasible for the healthcare providers to be equipped with the required knowledge such as sign language and other skills to provide both general and specialised healthcare services to them (Government of the Republic of Ghana, 2006). Aside this, the Act also mandates access to public places as well as integration of the needs of people with disabilities into the design, construction and operation of transport network (Ganle et al., 2016; Government of the Republic of Ghana, 2006).

Despite these statutes and conventions, PWDs have continued to experience various challenges that prevent their full and effective participation in society, including the full enjoyment and realization of their sexual and reproductive health and rights (PPAG et al., 2017, p.10). In particular, young people with disabilities are more likely to be stigmatised and discriminated against than their counterparts who have no disability (Ganle et al., 2016; Mitra, Posarac, & Vick, 2013). In the context of sexual and reproductive health, young people with disabilities have largely been ignored (Morrison et al., 2014). For example, a review on disability in sexual and reproductive health policies and research in Ghana concluded that persons with disabilities have received less attention (Anafi, Mprah, & Sekyere, 2014).

The disability scholarship has leveled some critiques against the disability act. Notable among them is the fact that the Act had no provision on non-discrimination and the gender dimension of discrimination (Asante & Sasu, 2015; Chapman et al., 2006). Again, in 2008, a study conducted in Ghana reiterated the same argument and even added that the Act has no legal definition of disability and no legislative instrument to aid its implementation (JMK Consulting Research, 2008). To add to this, following the ratification of the United Nations Convention on the Rights of Persons with Disability (UNCRPD) and the Optional Protocol in 2012 by the Government of Ghana, the Law and Development Associate, (as cited in Voice Ghana, 2014), stated in its 2013 Draft Gap Analysis Report that Act 715 is inconsistent with the UNCRPD because it has no provision on women with disability, the rights of children with disability, the inherent right to life and the right to protection and safety in situations of risk and humanitarian emergencies (Asante & Sasu, 2015).

Moreover, Asante and Sasu (2015) have also critiqued the Act. They are of the view that most of the buildings that are put up are not complying to the guidelines of the Act and this is partly because the construction professionals such as architects and contractors in Ghana are not liable for non-compliance of the provisions of the Act. Furthermore, there is no mention of the voting rights of PWDs in the Act. Voice Ghana (2014) is also of the view that even though the Act is very relevant in promoting the rights of PWDs, enough has not been done yet to implement it. Besides, the Act has no Legislative Instrument (L.I) to give the necessary legal backings to it, and PWDs in Ghana are currently championing this course.

Convention on the Rights of Persons with Disabilities

The United Nations General Assembly adopted the Convention on the Rights of Persons with Disabilities (CRPD) and its Optional Protocol on 13th December 2000. Eighty-one (81) countries signed the Convention on the opening day. In 2007, a year after the Persons with Disability Act was passed, Ghana signed the CRPD and the Optional Protocol. Then, on March 13, 2012, the Government of Ghana ratified the CRPD and the Optional Protocol.

The Convention is a human rights treaty, among States setting out human rights and the corresponding obligations on states. The Convention recognises the rights of persons with disabilities the same rights as everyone else but reaffirms that persons with disabilities must also enjoy these rights. This in itself is significant as persons with disabilities are often denied their rights or are simply not aware that they have rights. The treaty underlines that persons with disabilities should enjoy those rights without discrimination and on an equal basis with others (United Nations, 2006).

In terms of healthcare, Article 25 of the convention mandates States to recognise that persons with disabilities have the right to the enjoyment of the highest attainable standard of health without discrimination on the basis of disability. States shall take all appropriate measures to ensure access for persons with disabilities to health. It states that States shall:

> *Provide persons with disabilities with the same range, quality and standard of free or affordable health care and programmes as provided to other persons, including in the area of sexual and reproductive health and population-based public health programmes; Provide those health services needed by persons with disabilities*

> *specifically because of their disabilities, including early identification and intervention as appropriate, and services designed to minimize and prevent further disabilities, including among children and older persons.*
>
> *Provide these health services as close as possible to people's own communities, including rural areas; require health professionals to provide care of the same quality to persons with disabilities as to others, on the basis of free and informed consent by, inter alia, raising awareness of the human rights, dignity, autonomy and needs of persons with disabilities through training and the promulgation of ethical standards for public and private health care; prohibit discrimination against persons with disabilities in the provision of health insurance, and life insurance where such insurance is permitted by national law, which shall be provided in a fair and reasonable manner; and prevent discriminatory denial of health care or health services or food and fluids on the basis of disability (*United Nations, 2006).

Utilisation of Sexual and Reproductive Healthcare Services among Young People

Various studies have reported varied levels of utilisation of sexual and reproductive healthcare services among young people. For instance, Kassa, et al (2016) found that only 26.1 per cent of young people had utilised SRHS. In their study, they explained that the possible reasons for the low use were due to the difference in the characteristics of the study subjects (out of school adolescents without disability versus YPWD). Again, they stated that the findings of low SRH service utilization among YPWDs could be an indicative of inconvenience of services and young people's inadequate sources of information for PWDs in the country. Birhan, Tushune and Jebena (2018) found that 36.5 per cent of young people had utilised sexual and reproductive health services in Ethiopia. Similar findings were found in Ayehu, Kassaw and Hailu's (2016) study in the same year. The results of their study indicated that 41.2 per cent of the study participants had utilised sexual and reproductive health services. Although this percentage was almost twice that of the findings of Kassa, et al (2016), both results were less than 50 per cent, which can be said to be lower utilisation of sexual and reproductive health services. The reason they gave to be responsible for the low level of utilisation was as a result of difference in time and different socio-cultural practices among the various study sites.

Similarly, Abajobir and Seme (2014) indicated that one-fifth (21.5%) of young people (adolescents) had ever used reproductive health services including family planning, sexually transmitted infections treatment and information, education and communication. The plausible explanations they gave for the low level of utilisation were parental disapproval for their children to go to adolescent clinics, lack of information on where to seek the services and pressure from their peers not to seek care.

Relatedly, the findings of Addo and Gyamfuah (2015) showed that less than half (47%) of the young people utilized reproductive health services within the last 12 months preceding their survey. The key factors contributing to the low utilization were preference for abstinence, feeling of shyness in approaching health service providers, especially in cases of opposite gender, and the monetary costs for purchasing reproductive health services. The findings of Bam,et al. (2015) also showed low level of utlisation of SRHS. The results from the study indicated that SRH service utilization was very low (9.2%) among the respondents. Service utilization was lower among females (4.3%) than males (12.5%). Thirty three per cent (33.3%) of utilisation was found in Alemu and Fantahun's (2011) study. Almost the same results (33.2%) were found in Jaleta et al's (2017) study on the use of SRHS. Finally, Burke et al, (2017) showed that the majority of young people with disabilities reported they have never accessed SRH information or services. The reasons for non-use were lack of knowledge of where to access such services.

While some studies have shown low level of utilisation of SRHS, others have indicated high level of utilisation of SRHS. For example, De Visser and O'Neill's (2013) study found that seventy six per cent (76%) of the respondents utilised SRHS. Relatedly, Motuma (2012) found high level of utilisation (63.8%) among the respondents. Higher results on utilisation were found also by Arulogun et al (2013). They found that almost 95% of respondents had ever visited health facility for reproductive health issues. Feleke et al, (2013) conducted a similar study in Ethiopia and also had higher level of utilisation of SRHS. From their study, it was shown that 79.5 per cent utilized family planning services. The possible reasons for the high level of utilisation recorded in these studies as stated by Feleke et al, (2013), Burke et al (2017) and Jaleta et al. (2017) could be as a result of the support they get from Non-Governmental Associations (NGOs) and philanthropists to easily access health care in general. Again, there is also the possibility that the school authority will make sure YPWDS access healthcare whenever they are sick due to their special nature.

Challenges to Utilisation of Sexual and Reproductive Healthcare Services among Young People

From the literature, several challenges have been identified in the quest to seeking sexual and reproductive healthcare among young people. The challenges are the problems people encounter in the process of accessing SRHS. Notable among these challenges are geographical inaccessibility, negative health workers' attitudes, long queues at the health facilities among others. For instance**,** Ahumuza, et al (2014) found poor physical inaccessibility, negative attitudes of health workers, long queues at the health facilities, high cost of services and marginalization/social discrimination as the main challenges young people faced in accessing sexual and reproductive health services. Ayehu, Kassaw and Hailu (2016) also found that the main challenges were lack of trained health providers, cost of services and commodities, lack of separate rooms for young people and judgmental attitude of health providers. Similarly, negative and disrespectful provider attitudes are the main challenges that prevented young people from accessing sexual and reproductive services (Tanabe et al., 2015). Rugoho and Maphosa (2017) also found that the major challenges people with disabilities face are negative perceptions of health personnel towards them, disability-unfriendly infrastructure at health facilities and absence of trained personnel for people with disabilities.

Barriers to Utilisation of Sexual and Reproductive Healthcare Services among Young People

Several barriers have been identified in the utilisation of sexual and reproductive healthcare services among young people. Barriers are the factors that could prevent an individual from taking the step to seek SRHS. Some of these barriers include stigma, high cost of services, geographical barriers, structural and administrative barriers such as inappropriate structure of the health system, political barriers such as lack of an adopted strategy by the government and non-use of religious potential. These barriers have been found in most studies across the globe among young people's access to sexual and reproductive health services.

Almost a decade ago, Senderowitz (1999) described four categories of barriers why young people (adolescents) avoid using SRH services. These were policy constraints, operational barriers (hours of operation, transportation, cost), lack of information, and feelings of discomfort (belief that services are not for them, concern over hostile staff, fear of medical procedures). Some of these barriers have been eliminated or reduced; however, there are still major barriers preventing young people from accessing sexual and reproductive health services. For instance, Biddlecom, Singh and Munthali (2007) identified the main barriers as social stigma (e.g., fear or embarrassment), high cost, provider characteristics and lack of knowledge about service sources.

Birhan, Tushune and Jebena (2018) found that lack of information about SRH, poor perceptions about SRH, feeling of shame, fear of being seen by others, restrictive cultural norms, lack of privacy, confidentiality and unavailability of services were the main barriers to the use of sexual and reproductive health services among young people in Ethiopia. Furthermore, Bender and Fulbright (2013) found the main barriers as lack of knowledge, cultural and religious beliefs about sexual reproductive health, community, social and parental attitudes, the quality and accessibility of health services and poverty. As echoed in Chimphamba et al's (2012) study, the main barriers to utilisation of sexual and reproductive health services are stigma, discrimination, and embarrassment from the society.

In addition to that, high costs, long waiting time and long distance to the health facility are the major barriers to accessing reproductive health facilities among young people. From Merkel, Otai, Archer, and Lynam (2008), the major barrier to sexual and reproductive health services is geographical inaccessibility to the services. Shariati et al. (2014) outlined the main barriers that prevented young people from accessing sexual and reproductive health services as cultural barriers such as taboos, inappropriate structure of the health system, lack of an adopted strategy by the government and non-use of religious potential.

Sudbury and Robinson (2016) also found that the main barriers to sexual and reproductive health care service use are fear and feeling of embarrassment or shyness. Similarly, fear was also the main barrier as echoed in the findings of Thatte et al. (2016). In addition to that, feeling of embarrassment or shyness, fear of safety, fear of family finding out and cost were the most reported barriers preventing young people from accessing sexual and reproductive health services. Strauss, Rhodes and George (2015) found stigma and discrimination attached to testing, along with the inherent fear of a positive result as the biggest barriers to HIV counselling and testing uptake. Evelia et al. (2016) showed that barriers to access sexual and reproductive services were lack of access to the facility, unfriendly youth services and lack of client provider trust. Also, lack of adaptive equipment and inaccessible environment for patients with disabilities, professionals' inability to have time for patients with speech and hearing difficulties, limitations in insurance coverage on certain health services and professionals having limited information on where to refer patients with disabilities for specialized healthcare are the main barriers.

Also, Van Hees et al. (2015) noted in their study that the main barriers to reproductive health service utilisation among people with disabilities were dependence on others, distance to service point. Again, most persons with disabilities reported that a major barrier in seeking health care was their limited financial resource.

Moreover, Burke et al. (2017) also found lack of confidentiality and anonymity, and long distance to service point as key barriers to accessing SRH services, as well as provider attitudes and financial barriers. Other barriers cited were parents' attitudes, physical accessibility and communication barriers (for those with hearing impairments). Ayehu, Kassaw and Hailu (2016) showed that the main barriers were lack of trained health providers, cost of services and commodities, lack of separate rooms for young people, and judgmental attitude of health providers.

Finally, Badu, Agyei-Baffour, and Opoku (2016) revealed that the main barriers were medical equipment barriers, communication barriers and physical barriers to health care. As these barriers are echoed in a number of other studies a decade a ago such as Dehne, Riedner and Berer (2005), Amuyunzu-Nyamongo et al. (2005), Katz and Nare, (2002), Kiapi-Iwa and Hart (2004), there is the need to better address the obstacles that continue to persist over time and context across all types of sexual and reproductive health services and more especially among young people with disabilities.

Models on Disability

Models on disability are tools for defining impairment and, ultimately, for providing a basis upon which government and society can devise strategies for meeting the needs of disabled people. Models are systematic organisations of conceptual elements and represent the relationships between or among concepts (Altman, 2001). For Oliver (2013), “models are ways of translating ideas into practice” (p. 3). Several models have been developed in order to understand disability. Some of the most widely known models of disability are discussed below, specifically, the medical model, the social model and the bio-psychosocial model of disability.

Medical Model of Disability

The medical model sees impairment as a consequence of some ‘deviation’ from ‘normal’ body functioning, which has ‘undesirable’ consequences for the affected individual (Atkin, Berghs, Graham, Hatton & Thomas, 2016). This model of disability is based on the postulate that the problems and difficulties experienced by persons with disabilities are directly related to their physical, sensory or intellectual impairments. It defines disability in the clinical framework as diseased state, thus providing for major role for the medical and paramedical professionals to cure these problems in such a way as to make them as normal as possible. Persons with disabilities are biologically and psychologically considered to be inferior compared to other able-bodied counterparts.

The medical (also some time referred to as bio-medical) model of disability regards disability as a defect or sickness, which must be cured through medical intervention. It locates impairments within the body or mind of the disabled individuals that is directly caused by a disease, an injury or some other health condition and requires medical care in the form of treatment and rehabilitation (Stein, 2007). Rehabilitation, care and medical attention/treatment have an important role to play in bringing the person back or close to the norm. According to Stein (2007) under this model, people with disabilities are believed to be incapable of performing social functions because of medical conditions that impair various major life activities. As a consequence of this notion, disabled persons are either systemically excluded from many social spheres of life and hence reduce their full participation in the various activities of the society.

Impairment is seen as indicative of an underlying physical abnormality (pathology), located within the individual body, and medical treatment, wherever possible, should be directed at the underlying pathology in an attempt to correct (or prevent) the abnormality. Critics argue that this is a form of biological reductionism which views disability in terms of an individual deficit/problem that has to be fixed, rehabilitated or prevented rather than in terms of being generated by the social consequences of impairment (Hogsbro, 2010). This tension has come to inform how the medical model has been debated (See Figure 1).

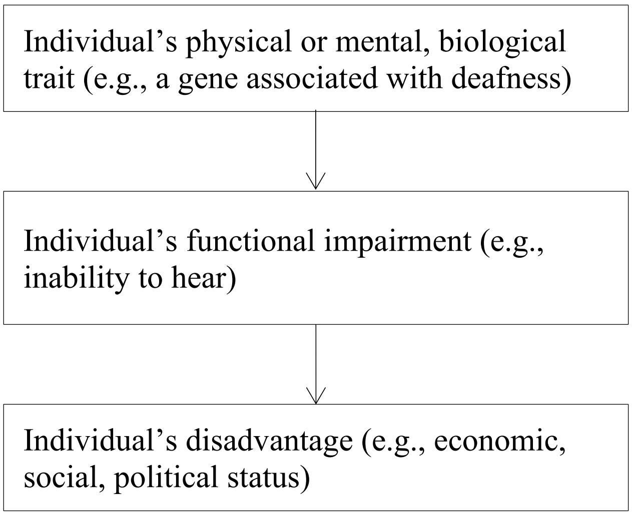

Figure 1: The Medical Model of Disability

Source: Samaha (2007)

For Linton (2010), the benefit of the medical model has been the medical treatments that have increased the well-being and vitality of many disabled people; indeed it has saved people's lives. There is also an on-going attention by the medical profession to the health and well-being of people with disabilities and the prevention of disease and impairments is critical. Again, the model recognises the fact that disability can be treated and as a result, there is the need for individuals to seek medical care.

There are some critiques levelled against the medical model. First, the model could be seen as weak in conceptualising comorbidities or multi-morbidities, which is at odds with the idea that many people will possibly experience various forms of impairment during their lifetime, especially the older stage in their life which is a natural process (Atkin, Berghs, Graham, Hatton & Thomas, 2016).

Second, disability has been seen as an extraordinary, unusual, life-changing event and has often been viewed as an individual personal tragedy (Oliver, Sapey & Thomas, 2012). Barnes (2003) views rehabilitation and the norm of the able body as central to the 'individual' medical model and the way in which disability is understood. Nonetheless, most theoretical analyses of disability models, despite containing critical references to 'a medical model', do not always expound what they understand by it or reflect ways in which the model has changed (Shakespeare, 2013).

The medical model places the source of the problem within a single impaired person, and concludes that solutions are found by focusing on the individual, which is not always the case. A more sophisticated form of the model allows for economic factors, and recognizes that a poor economic climate will adversely affect a disabled person's work opportunities (Shakespeare, 2013).

According to Linton (2010), the medicalization of disability casts human variation as deviance from the norm, as pathological condition, as deficit, and, significantly, as an individual burden and personal tragedy. Society, in agreeing to assign medical meaning to disability, colludes to keep the issue within the purview of the medical establishment, to keep it a personal matter and treat the condition and the person with the condition rather than treating the social processes and policies that constrict disabled people's lives.

The medical model of disability focuses on the disadvantaging impact of physical or mental impairments rather than that of the environment in which they operate. The impairment itself is considered to be disabling. If any assistance is appropriate, therefore, it would presumably be the delivery of individualized services hearing aids, wheelchairs, guide dogs, personal care attendants, pharmaceuticals, and the like. The individualised medical model has dire consequences for the political struggle of people with disabilities.

(Stein (2007) asserts that people with disabilities are robbed of a sense of political community by those whom they need to address their pain.

Social Model on Disability

The social model emerged from the intellectual and political arguments of the Union of Physically Impaired Against Segregation (UPIAS, 1976) document first published in the mid-1970s (UPIAS, 1976), which argued that people are not disabled by their impairments but by the disabling barriers they face in society (Oliver, 2013). The medical model is often referred to as the old paradigm and stands in contrast to the social model of disability for which disability is not the attribute of the individual; instead, it is created by the social environment and requires social change. According to Oliver, in contrast to medical model, which locates disability within the person with disabilities, social model postulates that a person is disabled because of architectural, attitudinal and social barriers created by the society. The social model presents disability as a consequence of oppression, prejudice and discrimination by the society against disabled people.

For the social model, it is the society which constructs economic, social, health, architectural, legal, cultural and other barriers in order to deliberately prevent people with impairments from enjoying full benefits of social life. Factors external to a disabled person's limitations are really what determine that individual's ability to function (Groce, London & Stein, 2014; Palmer & Harley, 2011). In Britain, the reformulating of disability as a form of social oppression as opposed to a purely medical or welfare concern began in the 1970s. Disabled individuals and groups began to self-organize to resist, among other things, their relegation to residential institutions, their exclusion from the labour market and the opportunity to earn a living wage, and their enforced poverty (Thomas, 2002). The key elements of the social model, as outlined by UPIAS through its Fundamental Principles of Disability, are the distinction between disability (social exclusion) and impairment (physical limitation) and the claim that disabled people are an oppressed group (Oliver, 2013).

Disability has been defined, not in functional term, but as the disadvantage or restriction of activity caused by a contemporary social organisation which takes little or no account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities (Shakespeare, 2006). According to Shakespeare, in social model, impairment is distinguished from disability. The former is individual and private; the latter is structural and public. While doctors and professions allied to medicine seek to remedy impairment, the real priority is to accept impairment and to remove disability. The social model defines disability as a social creation–a relationship between people with impairment and a disabling society.

The social model is based on three major postulates: (1) the primary problems faced by disabled persons stem from social attitudes rather than from functional limitations; (2) all facets of the man-made environment are shaped or moulded by public policy; and (3) in a democratic society, public policies represent prevailing public attitudes and values (Stein & Stein, 2006). The social model rejects the notion of ‘normal’ functioning, and does not see liberation from disability in terms of living a life in conformity to some pre-defined notion of normality (Burchardt, 2004). For Burchardt (2004), as regards the question of identifying which abilities are important, the social model suggests that this is a matter for the disabled, rather than medical experts, to decide. The social model is shown in Figure 2.

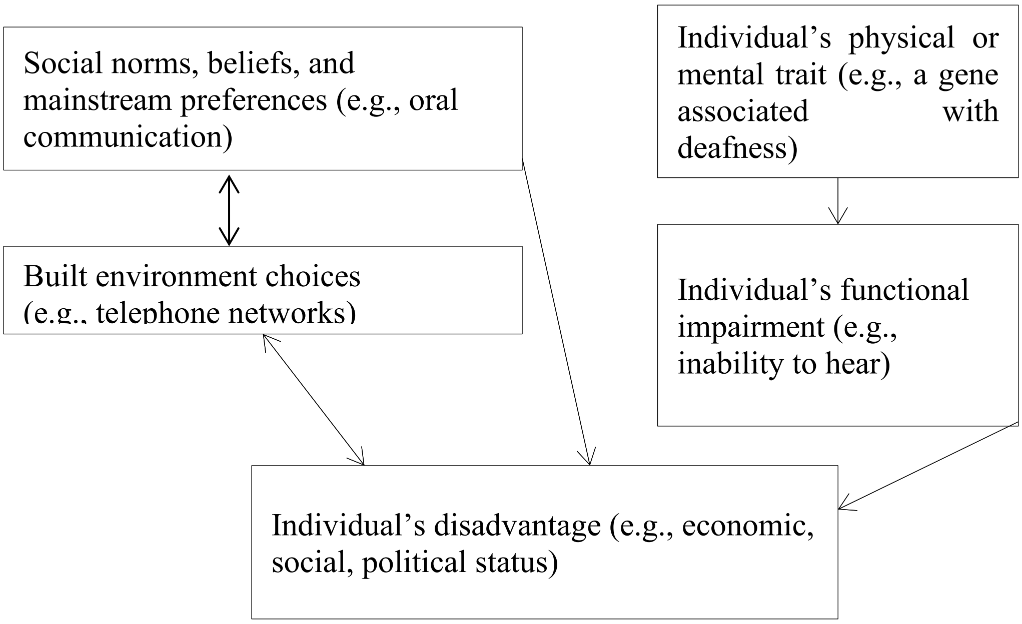

Figure 2: Social model of disability

Source: Samaha (2007)

The main strength of this model lies in its placing the responsibility upon society and not the individual. The social model of disability sees the issue mainly as a socially created problem, and basically as a matter of the full integration of individuals into society. Hence, the management of the problem requires social action, and it is the collective responsibility of society at large to make the environmental modifications necessary for the full participation of people with disabilities in all areas of social life. The issue is, therefore, an attitudinal or ideological one requiring social change, which at the political level becomes a question of human rights. For this model, disability is a political issue (WHO, 2001). Another key strength of the social model is the distinction between personal impairments and disability (Tremain, 2001) and its indication that at least some impairments disadvantage only because of their interaction with a social setting.

This model has also been able to put forth the question of disability as human rights and understanding of disability at the political level. According to WHO (2001), the social model is reflected in the preamble of the UNCRPD, which recognises that disability is an evolving concept and that disability results from interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others.

Specifically, Shakespeare (2006) also identifies the following strengths of the social model of disability. The social model has been effective politically in building the social movement of disabled people. By identifying social barriers to be removed, the social model has been effective instrumentally in the liberation of disabled people. The social model has been effective psychologically in improving the self-esteem of disabled people and building a positive sense of collective identity.

According to Samaha (2007), despite the apparent connection between the social model and social change, there is no necessary relationship there. Although the social model is one way to define disability and a field of inquiry, it is not a disability policy. Samaha stated that deciding how to respond to “disability” in law and culture depends on a normative framework that cannot be supplied by the model. The social model itself, however, has essentially nothing to say about which framework to use. One can accept the model’s insight regarding causes of disadvantage without committing to a particular response, even if one believes that disability is simply or importantly the result of people's attitudes.

The social model has also been criticised on the grounds that according to it, all relevant limitations in one's ability to participate in society are caused by social organisation, which is not always the case as some of the impairments are natural processes that occur within an individual as he or she ages. In other words, it has been criticised because it does not recognise any disability, which might not be removed by some appropriate change in social arrangements (Qizilbash, 2011). This is supported by Shakespeare and Watson (2001) who argue that impairments are disabling and Bury (2013) also assert that it will be 'nonsensical' to deny any causal relationship between chronic illness/impairment and disability.

From Shakespeare's (2006), view 'the social model is wrong'. He argues that the social model with its concentration on social change, does not allow for any disadvantage that is attached to impairment, which is critically distinct from social barriers. Shakespeare and Watson (2001) reject the social model as it conceptually separates impairment from disability and asserts that people with impairment are disabled by society, not by their impairments. For them, people are disabled both by social barriers and by their bodies. Shakespeare (2013) and Watson (2012) agree that impairment and chronic illness have direct causative effects on the daily restrictions of activity that constitute disability. According to Stein (2013), social model advocates have taken an over inclusive position of rejecting all, instead of many or most disability-related exclusions as arising from arbitrarily selected biological norms. For Gleeson (2006) there is the danger of reducing the entire experience of disability to macro social phenomena.

For Shakespeare (2006) the social model is a simple one and it has produced a narrow understanding of disability. According to him, another problem is its authorship by a small group of activists, the majority of who had spinal injury or other physical impairments and were white heterosexual men. Arguably, had UPIAS included people with learning difficulties, mental health problems, or with more complex physical impairments, or more representative of different experiences, it could not have produced such a narrow understanding of disability (Shakespeare, 2006).

According to Shakespeare, the social neglects impairment as an important aspect of many disabled people's lives. The social model so strongly disowns individual and medical approaches that it risks implying that impairment is not a problem. It suggests that people are disabled by society not by their bodies. The model can be interpreted as rejecting medical prevention, rehabilitation or cure of impairment. In everyday life, it is very hard to distinguish clearly between the impact of impairment, and the impact of social barriers. In practice, it is the interaction of individual bodies and social environments which produces disability (Shakespeare, 2006; Shakespeare, & Watson, 2010).

The idea of the enabling environment in which all socially imposed barriers are removed, is usually implicit rather than explicit in social model thinking. Barrier–free enclaves are possible, but not a barrier free world. Given the lack of resources, it is not possible to create an absolute barrier–free environment. Again, as the population gets older the numbers of people with impairments will rise and making it harder for society to adjust (Shakespeare, 2006; Shakespeare, & Watson, 2010).

Also, concepts of the social model can be difficult to understand, particularly by dedicated professionals in the fields of charities and rehabilitation. These have to be persuaded that their role must change from that of "cure or care" to a less obtrusive one of helping disabled people take control of their own lives (Shakespeare, 2006; Shakespeare, & Watson, 2010).

Bio-Psychosocial Model of Disability

According to proponents of the bio-psychosocial model on disability, both the medical and social models are partially valid but not adequate. As a result, they are of the view that a synthesis of both models is the most useful approach. The World Health Organisation (WHO), accordingly, developed the International Classification of Impairments, Disabilities and Handicaps (ICIDH) in the early 1980s, which was revised and renamed as the International Classification of Functioning, Disability and Health (ICF). Under ICIDH, impairment meant “any loss or abnormality of psychological, physiological, or anatomical structure or function”; disability meant a “restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being”; and handicap meant a “disadvantage for a given individual, ‘resulting from an impairment or disability, ‘that limits or prevents the fulfilment of a role that is normal (depending on age, sex and social and cultural factors) for that individual” (WHO, 2001, p. 23).

The bio-psychosocial model embedded within ICF is an integration of both medical and social models and it attempts to achieve a synthesis, in order to provide a coherent view of different perspectives of health from a biological, individual and social perspective (Mitra & Sambamoorthi, 2006). At the core of ICF's concept of disability is the fact that disability is multidimensional and the product of an interaction between an individual's certain conditions. The bio-psychosocial model embedded in the ICF broadens the perspective of disability by allowing examining medical, individual, social, and environmental influences on functioning and disability. ICF's updated version of 2002 puts the notion of health and disability in a new light by acknowledging that every human being can experience a decrement in health and thereby experience some disability (United Nations, 1990). The main strength of this model is the fact that disability is multidimensional and hence must be looked at not just from one point of view but also from different perspectives. The bio-psychosocial model is presented in Figure 3.

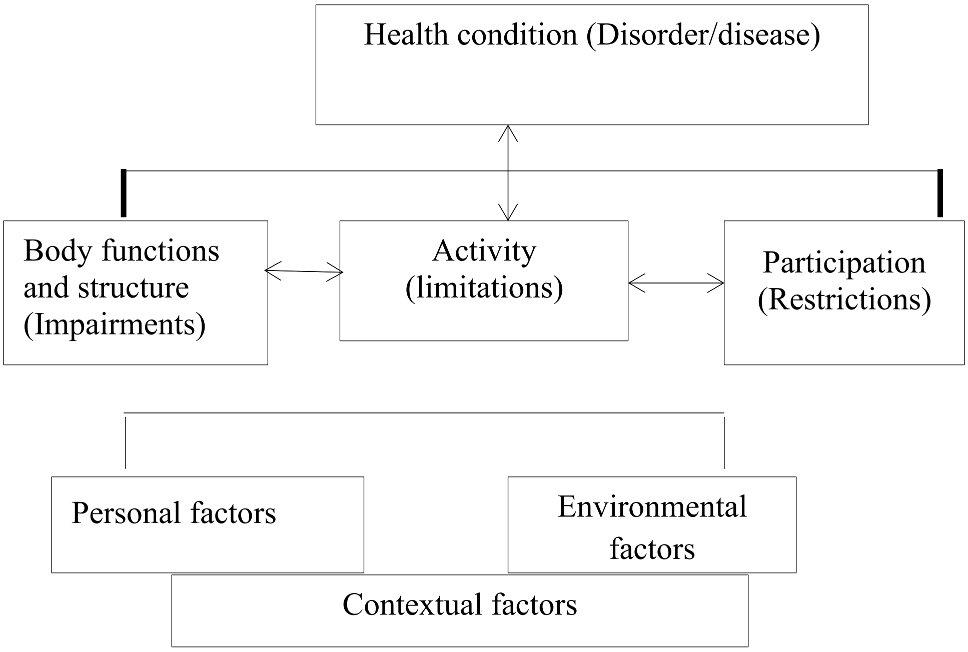

Figure 3: Bio-Psychosocial Model

Source: WHO (2011)

Health Service Utilisation Model

The healthcare utilisation model was propounded by Ronald M. Andersen in 1968 in the United States of America. He was a health service researcher and medical sociologist. He developed the model as a result of a survey for the Center for Health Administration Studies and the National Opinion Research on families' use of health services (Aday, Andersen, & Fleming, 1980; Andersen, 1968; Andersen, 2008). Since the initial development of the theory, it has undergone several modifications. It was reviewed in 1973 by Andersen and Newman (1973) and subsequently by Andersen (1995), Gelberg, Andersen, and Leake (2000), and Andersen and Davidson (2001). The model has been applied in various fields such as sociology, medicine, public health and psychology.

The model is a multilevel theory, which incorporates both contextual and individual level predictors of health services utilisation. In doing so, it divides the major components of contextual characteristics in the same way as individual characteristics have traditionally been divided, thus, those that predispose, enable or suggest need for individual use of health services (Andersen, 2008, p. 652). There are three main tenets of the theory. They are predisposing, need, and enabling factors. It describes how these factors come to play to influence the utilisation of health services (Andersen, 2008). The main tenants of the model are elaborated below.

Predisposing Factors: According to the theory, they are basically the demographic characteristics of individuals which include sex and age as "biological imperatives" (Andersen & Davidson, 2001, p.7); social factors such as religion, education, ethnicity, attitude towards health, and social relations (such as family status); mental factors in terms of health beliefs (e.g., values, attitudes, and knowledge on health and health- related services) (Andersen, 1995; Andersen, 2008); and contextual factors including the social and demographic composition of communities, organisational and collective values, political perspectives and cultural norms, which predispose individuals to the use of health services

Enabling Factors: According to the model, they are described as being external to the individual but important in influencing his/her decisions concerning the use of health services. According to Andersen and Davidson, (2001) organisational and financing factors are considered to serve as conditions enabling health service utilisation (Andersen & Davidson, 2001; Babitsch, Gohl, & von Lengerke, 2012). These organisational and financing factors occur at both individual and contextual levels. Individual financing factors comprise the wealth and income at the disposal of an individual which enable him/her pay for the utilisation of health services and the effective price of health care which is determined by cost-sharing requirements and the individual's health insurance status (Andersen, 2008). Individual organisational factors have to do with access to a regular source of care and the nature of that source. They also include travel time to the health facility, the means of transportation, and waiting time for healthcare.

The model posits that at the contextual level, financing encompasses the resources available within the milieu for health services such as affluence, per capita community income, the level of health insurance coverage, methods of compensating providers, the relative price of goods and services, and health care expenditures (Babitsch, Gohl, & von Lengerke, 2012). Organisation at the contextual level denotes the amount, locations, varieties, structures, and distribution of health personnel and facilities. It also involves office hours, hospital and physician density, quality management oversight, provider mix, and education and outreach programmes. Health policies also constitute organisational contextual enabling factors (Andersen & Davidson, 2001; Babitsch, Gohl, & von Lengerke, 2012).

Need Factors: The need factors according to the model refer to perceptions of the seriousness of a disease or health condition (Andersen & Newman, 1973; Babitsch, Gohl, & von Lengerke, 2012), and just as the enabling factors, exist at both the individual and contextual levels. At the individual level, the model distinguishes between perceived need for health services (how people perceive and experience their own health status [self-rated health], functional state and illness symptoms) and evaluated need (objective measurements of patients' health status and professional assessments, and need for medical care) (Andersen & Davidson, 2001; Babitsch et al., 2012).

At the contextual level, individuals make a differentiation between population health indices and environmental need characteristics (Babitsch et al., 2012). Environmental need, according to the model, point to the health-related circumstances of the environment (e.g. occupational and traffic and crime-related injury and death rates). Population health indices, on the other hand are the overall measurements of community health, including epidemiological indicators of disability morbidity, and mortality (Andersen & Newman, 1973).

The model has been criticised for the fact that it does not pay attention to cultural dimensions and social interactions (Wilson et al., 2005) but Andersen argues that this social structure is included in the predisposing characteristics component. Another criticism was the overemphasis of need and at the expense of health beliefs and social structure. However, Andersen argues (2008) need itself is a social construct. This is why need is split into perceived and evaluated. Another limitation of the model is its emphasis on health care utilisation or adopting health outcomes as a dichotomous factor, present or not present. Other help-seeking models also consider the type of help source, including informal sources. More recent work has taken help-seeking behaviours further, and more real-world, by including online and other non-face-to-face sources.

Despite the few flaws of the model, it has the following strengths: the model considers healthcare utilisation from both the micro (individual) and the macro level (community) level. Predisposing factors clearly explains one of the variables under study, thus sex, and the model has also been able to explain the factors that influence treatment selection. It includes material, environmental and structural factors. The model is shown in Figure 4.

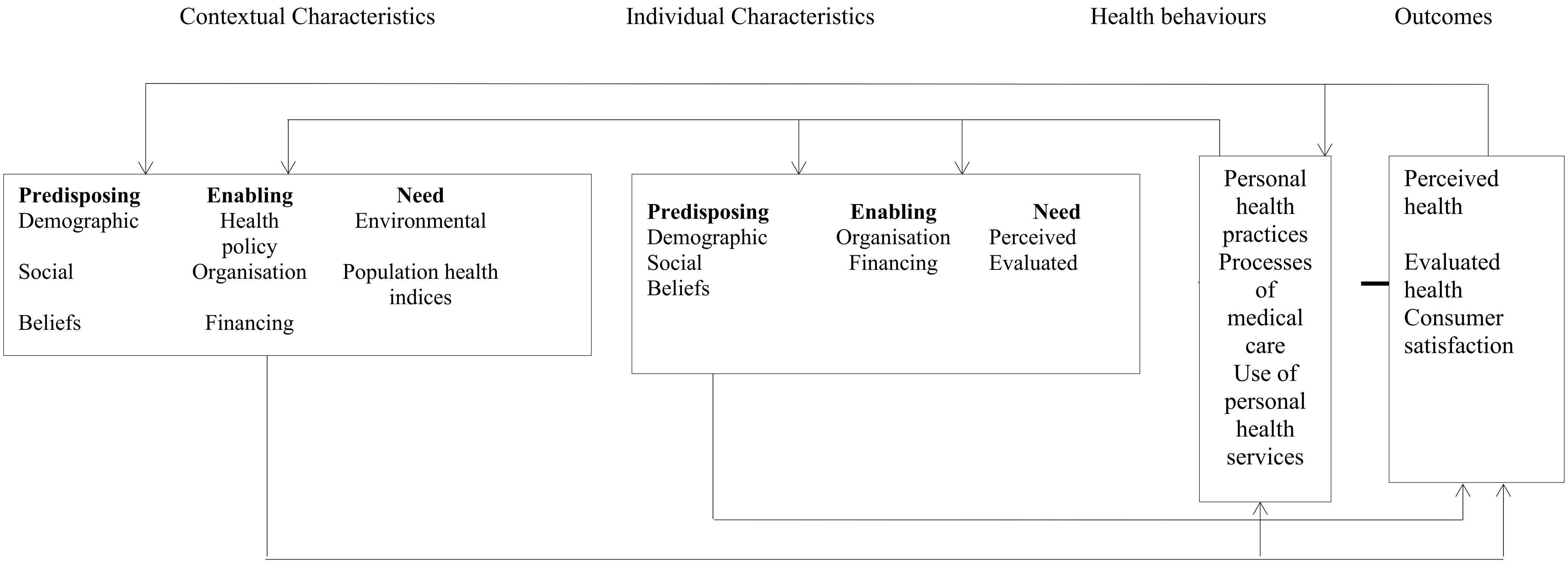

Figure 4: Health Services Utilisation Model
Source: Anderson and Davidson (2001)

Conceptual Framework

The Health Service Utilisation Model originally propounded by Andersen (1968) but subsequently revised by Andersen and Newman (1973), Andersen (1995), Gelberg, Andersen, and Leake (2000), and Andersen and Davidson (2001), is adapted as the conceptual framework for this study to explain utilisation of sexual and reproductive health services among young people with disabilities in Ghana. The model was chosen because it is a multilevel theory and as such, enables the study to ascertain both contextual and individual predictors of sexual and reproductive health services utilisation among young people with disabilities in Ghana. The main tenets of the theory, thus pre-disposing, need, and enabling/disabling are the pillars on which the study is conceptually grounded. In order to precisely reflect the variables of interest of the study in the adapted model, the variables under each tenets of the model are explained below: The independent variables for the study are the predisposing factors (sex, age, religion, educational level and ecological zone), the enabling /disabling factors, and the need factors. The dependent variable for the study is utilisation of sexual and reproductive health care services.

With regards to predisposing factors, sex, age, religion and educational level and ecological zone will be significant in ascertaining the utilisation of health services among young people with disabilities in Ghana. Regarding the enabling/disabling factors, in this work, they included both individual and organisational factors, which have to do with access to a regular source of care. Factors that can enable young people with disabilities to access sexual and reproductive healthcare services include; health insurance subscription ever faced a challenge and a barrier. Health insurance subscription is a strong predictor to the utilisation of health care services as this pave way for those who cannot afford the services to access them at a subsidised cost.

At the contextual level which denotes the amount, locations, varieties, structures, and distribution of health personnel and facilities, office hours, hospital and physician density, quality management oversight, provider mix, and education and outreach programmes, point to the preparedness of the healthcare system in offering services to young persons with disabilities also has the propensity to inform the desire and willingness for YPWDs to utilise such services. For example, if health personnel are not many and YPWDs who want to utilise sexual and reproductive health care services have to spend many hours in queues to access care, they may be discouraged from utilising such services. Policies (e.g Disability Act which mandates the health facilities and health personnel to provide healthcare) to people with disabilities also constitute organisational contextual enabling factors which may encourage utilisation of services among the YPWDs.

Need factors: the need factors in this model include the disability type and self-rated health status. An important need factor which may significantly influence the utilisation of health services among YPWDs has to do with self-rated health. This according to Andersen and Newman (1973), describes how people perceive and experience their own health status. In other words, this has to do with how YPWDs rate their sexual and reproductive health status. Thus, YPWDS living with sexual and reproductive health condition, for instance, but who doesn't see him/herself as sick and needing SRH care, may not recognise the utilisation of health services as important. This, therefore, then serves as a barrier to his/her utilisation of the services, which are needed to make him/her recover from, or cope with the condition. The conceptual framework is shown in Figure 5

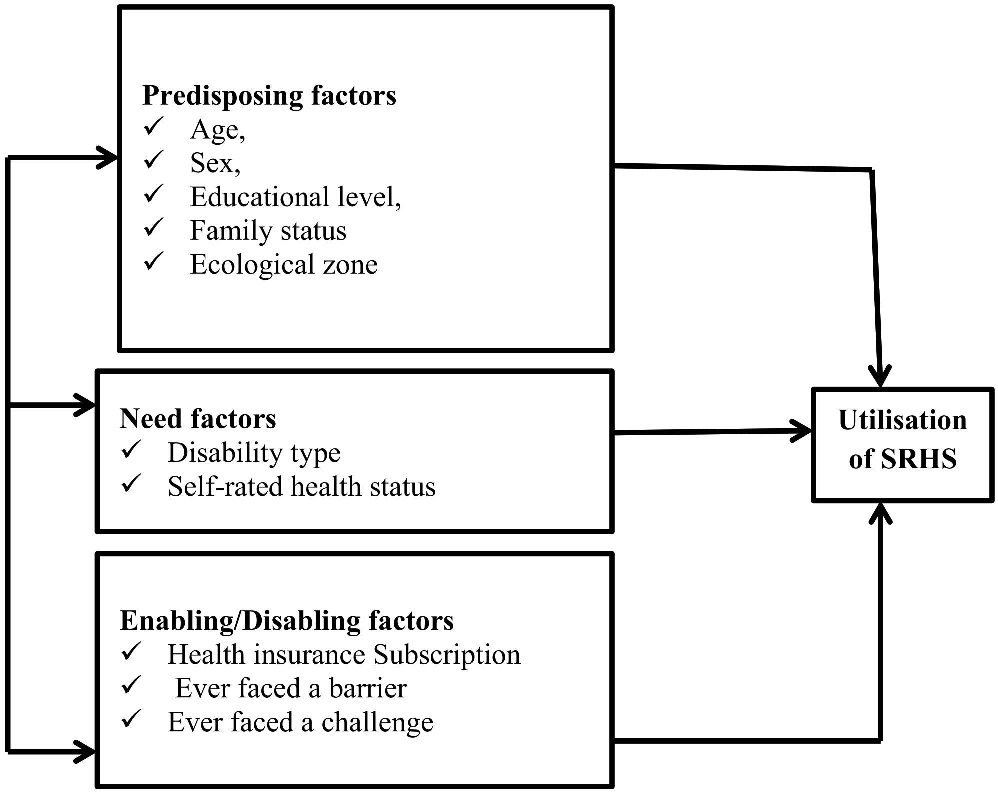

Figure 4: Conceptual Framework

Source: Adapted from Anderson and Newman (1973).

The models on disability and the healthcare utilisation model guided the design of the study, setting of the research objectives and questions and analysis of the data. In terms of the study setting, it was situated in Ghana to incorporate all the special schools. In terms of the disability type, the study looked at the hearing impaired and the visually impaired. The formulation of the hypothesis were guided by the conceptual framework and the analysis of the data was also guided by the framework by building three stepwise logistic regression models to establish associations between the independent variables and the dependent variables.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methods that were employed in carrying out this research. Issues covered in this chapter are the research design, description of the study area, the population for the study, sample size, sampling procedure, method of data collection and data collection instrument. Pretesting of the research instrument, data management, data analysis and ethical considerations are also discussed.

Research Design

The study was guided by the quantitative research design. Specifically, the descriptive cross-sectional study design was used. According to Setia (2016) cross-sectional study design is a type of observational study design whereby the investigator does not alter the exposure status. The investigator measures the outcome and the exposure(s) in the population, and may study their association. The data for this study was collected within a short time and the analysis was also done within the short time. In this regard, the study participants were approached once during the data collection but not followed for a longer period of time (Creswell & Poth, 2017).

The advantages associated with the cross sectional study design are: it is relatively faster and inexpensive to conduct– particularly when compared with cohort studies (prospective). They are often based on a questionnaire survey. There is usually no loss to follow-up because participants are interviewed only once. Cross-sectional studies are conducted either before planning a cohort study or a baseline in a cohort study. These types of designs can give information about the prevalence of outcomes or exposures; this information can be further used to design a cohort study, which can subsequently be useful for public health planning, monitoring, and evaluation. It is also possible to record exposure to many risk factors and to assess more than one outcome in a cross sectional study (Sedgwick, 2014).

Nonetheless there are some limitations associated with this study design. It may be prone to non-response bias if participants who consent to take part in the study differ from those who do not, resulting in a sample that is not representative of the population. These studies are also prone to recall biases when the outcome of interest is measured retrospectively. Also, because data on each participant are recorded only once it would be difficult to infer the temporal association between a risk factor and an outcome. Therefore, only an association, and not causation, can be inferred from a cross sectional study (Sedgwick, 2014; Levin, 2006).

Study Area

The study covered the three main ecological zones of Ghana. Thus the coastal zone (Greater Accra, Central, Western, Volta region) Northern zone (Northern, Upper East and Upper West Region) and the middle zone (Brong Ahafo, Ashanti and Eastern Region) Ghana is located on the West African Coast and has the total land area of 238, 533 square kilometres (Ghana Statistical Service, 2013). There are three main countries surrounding it. All these countries are French speaking countries–Burkina Faso on the North, Cote d'Ivoire on the west and Togo on the east. The country lies between latitudes 4° and 12°N, and longitudes 4°W and 2°E and the Greenwich Meridian line passes through the sea point of Tema about 24 kilometres to the Capital, Accra.

The population of Ghana according to the National Population Census conducted in 2010, stood at 24,658,823 (GSS, 2013). There was an annual growth rate of 2.4 per cent from 1960 to 1970, 2.6 per cent from 1970 to 1984, 2.7 per cent 1984 to 2000 and 2.5 per cent from 2000 to 2010.The map of Ghana showing the study areas are in Figure 6.

Figure 5: Map of Ghana, showing the various study settings

Source: GIS Unit of Department of Geography and Regional Planning, UCC (2017)

Target Population

The target population constituted all disabled young people in Ghana. The study population were disabled students in all selected special schools in Ghana–Wa Deaf, Wa Blind, Gbeogo, Savelugu School for the deaf, Ashanti School for the Deaf (Ashanti Deaf), Bechem School for the Deaf (Bechem Deaf), Akropong Blind, Koforidua Deaf (Kofdeaf), Mampong Secondary Technical (Secotech), Mampong Demostration School for the Deaf (Demodeaf), Kibi School for the Deaf (Kibideaf). Cape Coast School for the Deaf (Cape Deaf), Salvation Army, State School for the Deaf (State Deaf), Adedome and Sekondi School for the Deaf (Sekdeaf).

Sample Size

Sixteen special schools, which are mainly for the blind and the deaf, were selected across the ten regions of Ghana. The schools were grouped into three main ecological zones thus the savannah zone, the forest zone and the coastal zone (See Table 1). All the students of the sampled schools were screened and those within the ages of 10 and 24 were included in the study. The samples in the various ecological zones and schools are shown in Table 1.

Table 1: Sample Size for the Study

	School Name	Enrolment	Eligible	No. used for analysis
	Coastal Zone			
1.	Cape Deaf	364	296	193
2.	Salvation Army	120	72	60
3.	State Deaf	202	167	84
4.	Adedome	21	21	13
5.	Sekondi Deaf	250	168	147
	Total	**930**	**730**	**497**
	Middle Zone			
6.	Secotech	250	250	142
7.	Demodeaf	439	221	185
8.	Akropong Blind	367	217	169
9.	Kibi Deaf	213	166	121
10.	Koforidua Deaf	242	134	93
11.	Bechem Deaf	331	233	185
12.	Ashanti Deaf	552	366	263
	Total	**2394**	**1568**	**1158**
	Northern zone			
13.	Wa Deaf	200	140	134
14.	Wa Blind	230	126	90
15.	Gbeogo	300	204	175
16.	Savelugu	120	80	73
	Total	**850**	**550**	**472**
	Grand Total	**4186**	**2833**	**2127**

Source: Field Survey (2017)

Sampling Procedure

The study was a census. A screener was used to select the students who were deaf or blind and fell within the age 10-24. All the respondents who fell within this category were used for the study.

Data Collection Instrument and Method of Data Collection

A questionnaire was used to collect data from the respondents. Brails and sign language were used to collect the data. The study was a survey and the data collection method was interviewing. Collective administration technique was employed to collect the data. With this, the students were gathered in classrooms and halls. This method of administering the questionnaires was employed because it ensured a very high response rate (Kumar, 2011). Again, when the students needed any clarification, the research assistants were there to assist them. The quality of the data was ensured by taking time to explain to the respondents for them to have full understanding of the issues before answering and also the transcribed data was cross-checked after the transcription with the brails to ensure what they responded was what was transcribed.

Data used for this study were collected as part of a nationwide project titled *"Sexual and Reproductive Health and Rights and Leisure Needs of Young People with Disability in Ghana"*. Questionnaire (with a braille version) was used as the data collection instrument. The section on utilisation of sexual and reproductive health services was used for this study. This section of the instrument comprised questions on the utilisation of sexual and reproductive health services, the challenges to the utilisation of sexual and reproductive health services and the barriers to the utilisation of sexual and reproductive health services (See Appendix A).

Pretesting of Data Collection Instrument

Three Research Assistants were trained for five days before the instrument was pretested. After the training, a pre-test was done at Ghana National College in the Central Region of Ghana on 10 visually impaired students.

Reliability of the Data Collection Instrument

The pretested instrument was subjected to a reliability test to see whether it measured what it was supposed to measure. A reliability coefficient (alpha) of 0.77 was attained, which according to Bolarinwa (2015) is reliable to be used for the actual data collection.

Data Management

The first step of data management in this study was to check for accuracy, consistency and completeness of the questionnaire. This was done at the data collection stage. Each questionnaire was also checked for accuracy and consistency of the responses. After the data collection exercise, a template was created and coding of the response categories on the questionnaire was done with Statistical Package for the Social Services (SPSS) version 23. The data were then imputed into a password-protected computer. The imputed data was also protected with *"Mylockbox"* app on the computer to prevent unauthorised persons from getting access to the data. Hard copies (questionnaires with brails) of the data were stored in a locked cabinet in the Department of Population and Health's office until publications are 5 years old. When this was done, the data were cleaned and analysed with STATA version 14.

Data Analysis

Both descriptive and inferential statistics were used for the analysis of the data. The statistical software, STATA version 14, was used to analyse the data. Data were summarised in the form of frequency and percentage tables for categorical variables. Binary logistic regression test was used to test associations between the independent variables and the outcome variables. Significance was set at p-value of less than 0.05.

Three models were used to help explain the relationship among variables based on the conceptual framework, which was grouped in three factors: predisposing factors, enabling factors and the need factors.

Model I had the predisposing factors–age, sex, education, religion and ecological zone. In Model II, need factors–self-rated heath status and disability type were added to the variables in Model I. The final Model was a full model which comprised all the variables used in the predisposing factors and need factors used in Model I and Model II, respectively and the variables in the enabling/disabling factors–health insurance subscription ever faced a challenge and a barrier. Odds ratios (OR) and their corresponding 95% confidence intervals (CI) were estimated from the logistic regression.

Ethical Considerations

Copies of the research proposal were submitted to the University of Cape Coast's Institutional Review Board (UCC-IRB) for assessment and approval (UCCIRB/EXT/2017/13) (See Appendix B). Prior to the data collection, introductory letters seeking for approval to conduct the study were sent to all the 16 selected special schools in Ghana. When permission was granted, the date for the data collection was set and communicated to the various schools. Consent, both written and oral, were obtained both from the heads of schools and the study participants during the data collection. Individual participants were requested to sign or thumbprint a written informed consent form. Participants who could not sign (visually impaired) were asked to either thumbprint or give verbal informed consent. To ensure anonymity and confidentiality, all personal data were treated confidentially by omitting the names of the respondents from the questionnaires. Participation in the study was strictly voluntary and for that matter, respondents had the liberty to withdraw from the study at any time.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the findings and discussion of the results of the study. It provides an overview of the socio-demographic characteristics of the respondents comprising age, sex, disability type, level of education, religion and ecological zone. The chapter also discusses the use of sexual and reproductive health services, challenges and barriers to the use of SRHS.

Results

Socio–Demographic Characteristics of Respondents

The socio-demographic characteristics of the respondents are necessary in grasping the dynamics in the group and a good understanding of these characteristics help in explaining the results of the study (Barnard, 2013). This section covers the socio–demographic characteristics of the respondents namely: age, sex, disability type, educational level, religion and ecological zone.

Of the 2127 respondents, more than half were males and 45 per cent were females. The highest proportion of the respondents was aged, 15-19 years (See Table 2). Almost 60 per cent and 62 per cent of males and females respectively were aged 15-19 years. Almost half (49.3%) of the respondents were in JHS (48% males and 51% females). Forty-nine per cent of the males in JHS had hearing impairment while 58 per cent of the females were visually impaired. The results also show that Christianity is the most predominant religion among the respondents. Eighty-one per cent of the respondents were Christians (83.2% males and 82.7% females) (See Table 2).

Table 2: Socio–Demographic Characteristics of Respondents

Variable	Sex						Overall Total
	Males Disability Type			Females Disability Type			
	Hearing impaired n=1023	Visually impaired n=151	Total n=1174	Hearing impaired n=804	Visually impaired n=149	Total n=953	
Age							
10-14	18.9	19.2	18.9	20.9	20.8	20.9	19.8
15-19	60.7	51.7	59.5	64.1	62.4	63.8	61.5
20-24	20.4	29.1	21.6	15.0	16.8	15.3	18.8
Educational level							
Primary	38.2	37.8	38.2	35.3	30.2	34.5	36.5
JHS	48.6	44.4	48.0	49.5	57.7	50.8	49.3
SHS/technical/Commercial	13.2	17.9	13.8	15.2	12.1	14.7	14.2
Religion							
No religion	2.4	4.6	2.7	1.7	1.3	1.7	2.3
Christianity	80.2	81.5	80.4	83.2	79.9	82.7	81.4
Islam	17.4	13.9	16.9	15.1	18.8	15.6	16.4
Ecological zone							
Northern	27.2	23.3	18.7	32.9	20.9	22.2	27.2
Middle	52.5	62.9	53.8	54.5	61.7	55.6	54.6
Coastal	24.8	9.9	22.9	26.9	5.5	23.5	23.1

Source: Field Survey (2017)

The males in the middle zone were 54 per cent while the females were 56 per cent. Within the same zone, 63 per cent and 62 per cent of the males and females respectively were visually impaired (Table 2).

Utilisation of Sexual and Reproductive Health Services

The proportions of sexual and reproductive health service usage in relation to the socio-demographic characteristics of the respondents are shown in Table 3. The results show that more than six out of 10 (65.4%) young people with disabilities utilised SRHS. The Chi-squared test revealed statistically significant differences in socio demographic characteristics such as sex ($X^2 = 5.12$, P=0.02), educational level ($X^2 = 16.2$, P=0.00), ecological zone ($X^2 = 26.1$, P=0.00), and utilization of SRHS. Proportions of SRHS usage were high among all the age groups. For example, those aged 20-24 recorded the highest proportion (67%) of respondents who utilised SRHS compared to those aged 10-14 years (70% hearing impaired and 52% visually impaired). Males had a higher proportion (68%) of SRHS utilisation (64.3% hearing impaired and 55% visually impaired) compared with females (63%); (68.3% hearing impaired and 62.9% visually impaired).

The proportions of SRHS utilisation increased with the educational level of the respondents. For instance, 73 per cent of the respondents in the SHS/Technical/Commercial School utilised SRHS compared to those who are in primary school (60%). The data also showed that 66 per cent and 65 per cent of Christians and Muslims respectively indicated they utilised SRHS. Young people in the middle zone reported the highest proportion (70.4%) of

SRHS utilisation compared to those in the northern zone (58.3%); (71.3% hearing impaired and 65.3% visually impaired).

Type of Sexual and Reproductive Health Services Used

The type of SRHS utilised by the respondents are shown in Table 4. The results indicate that 27 per cent of the respondents (27% males and 29% of females) reported they had ever gone for STI services. Among the males, forty three per cent indicated they have ever used contraceptives (28% hearing impaired and 37% visually impaired). Approximately, thirty one per cent of the males (31% hearing impaired and 32% visually impaired) indicated they have undergone HIV testing and counselling. With the females, 16 per cent indicated they have ever gone for HIV testing and counselling (16%hearing impaired and 11.8%% visually impaired.

Table 3: Utilisation of Sexual and Reproductive Health Services by Socio-Demographic Characteristics of Respondents

Variable	Disability Type				Total		Chi-square	
	Hearing Impaired		Visually impaired				X^2	P value
	n	%	n	%	n	%		
Ever used SRHS	1718	66.5	278	58.6	1966	65.4		
Age							0.61	0.75
10-14	345	63.5	57	70.2	402	64.4		
15-19	1062	66.5	159	57.2	1221	65.3		
20-24	311	70.1	62	51.6	373	67.0		
Sex							5.12	0.02
Male	964	68.3	135	62.9	1099	67.6		
Female	754	64.3	143	54.6	987	62.8		
Educational level							16.2	0.00
Primary	633	58.9	95	70.5	728	60.4		
JHS	838	69.8	148	50.7	986	66.7		
SHS/Tech/Commercial	247	74.9	35	60.0	282	73.1		
Religion							3.32	0.19
No religion	36	66.7	8	62.5	44	65.9		
Christianity	1404	67.2	222	60.4	1626	66.3		
Islam	278	62.9	48	50.0	326	61.0		
Ecological zone							26.1	0.00
Northern	360	60.8	88	47.7	448	58.3		
Middle	919	71.3	167	65.3	1086	70.4		
Coastal	439	61.3	23	52.2	462	60.8		

Source: Field Survey (2017)

Table 4: Type of Sexual and Reproductive Health Services Used

Variables	Sex						
	Males			Females			
	Disability Type			Disability Type			Total
	Hearing impaired n=611	Visually impaired n=78	Total n=689	Hearing impaired n=422	Visually impaired n=68	Total n=490	
Types of services used							
Contraceptives	42.9	39.7	42.5	14.2	8.8	13.5	17.3
STI	26.4	28.2	26.7	27.7	36.7	29.0	27.0
Gynaecological services	-	-	-	15.4	30.9	17.6	17.5
Pregnancy test	-	-	-	14.9	7.4	13.9	12.9
Pregnancy termination	-	-	-	6.4	1.5	5.7	7.3
MCH	-	-	-	5.2	2.9	4.9	4.9
HIV Testing	30.8	32.1	30.9	16.1	11.8	15.5	13.2

**Multiple Response Table

Source: Field Survey (2017)

Reasons for Non-use of Sexual and Reproductive Health Services

The respondents who indicated that they had never used SRHS before were asked to provide reasons for their non-use. The results indicate that the common reasons for non-use are problem of communication (56%) and physical barriers (21%). Only 9.6 per cent indicated distance to service point as their reason for non-use.

It was found that 53 per cent of the males (59% hearing impaired and 18% visually impaired) and 61 per cent of the females (68% hearing impaired and 32% visually impaired) indicated their reason for non-use was problem of communication. Again, the results show that 22 per cent of the males (23% hearing impaired and 14% visually impaired) and 15 per cent of the females (11% hearing impaired and 31% visually impaired) indicated their reason for non-use was the high cost of health services (See Table 5).

Table 5: Reasons for Non-use of Sexual and Reproductive Health Services

Variables	Sex						
	Males			Females			
	Disability Type			Disability Type			Overall Total
	Hearing impaired	Visually impaired	Total	Hearing impaired	Visually impaired	Total	
Cost of health services	22.7	14.3	21.6	10.6	30.8	14.57	18.1
Physical barriers	14.6	25.0	17.0	21.2	35.9	24.10	20.6
Discrimination by health professionals	6.1	46.4	11.9	6.4	48.7	14.87	13.4
Distance to service point	4.9	28.6	8.3	6.4	28.2	10.7	9.6
Lack of medical Equipment adapted for my usage	6.7	21.4	8.8	4.5	34.2	10.4	9.6
Problem of communication	58.8	17.9	53.0	67.9	31.6	60.9	56

**Multiple Response Table
Source: Field Survey (2017)

In order to understand the socio-demographic factors that are associated with utilisation of SRHS among YPWDs, three sequential logistic regression models were run and the results are presented in Table 6. The pseudo R^2 values for the three models considered in the analyses were model I (predisposing factors)–0.019, model II (predisposing factors and need factors)–0.036 and model III (predisposing factors, enabling/disabling factors and need factors)–0.111. It is observed that the pseudo R^2 increased in every additional model. The model that best predicts the utilisation of SRHS is the model with the highest pseudo R^2 and that is the model III.

Sex educational level and ecological zone were significantly associated with utilisation of SRHS after controlling for the effects of other socio-demographic variables. With sex, females had 0.78 decreased odds of utilising SRHS compared to their male counterparts after controlling for other socio-demographic variables (OR=0.78 $p<0.05$). In the complete model, sex did not show any significant association. In terms of educational level, young people with disabilities in SHS/Technical/Commercial were 1.8 more likely to utilise SRHS compared to those in primary school (OR=1.8 $p<0.05$) after controlling for other socio-demographic variables (See Table 6).

In the second model, when the need factors (disability type and self-rated health status) were added to the first model (predisposing factors), some of the variables that were not statistically significant became significant. For example, ecological zone that was not significant in the first model was significant in the second model. Those in the coastal zone had 0.38 decreased odds of utilising SRHS compared to those in the northern zone (OR=0.38 $p<0.05$). Nonetheless, ecological zone, disability type and self-rated health status were statistically significant. The visually impaired had about 2.36 increased odds of utilising SRHS compared to the hearing impaired (OR=2.36 $p<0.05$). Those who rated their health status as good had 1.8 increased odds to utilise SRHS compared to those who rated their health status as very good (OR=1.8 $p<0.05$). This rating was informed by how previous studies measured self- rated health status (Snead, 2007).

In the third model, health insurance subscription, ever faced a challenge and barrier were added to make it a complete model. It was observed that ecological zone, self-rated health status, and ever faced a challenge and a barrier were significantly associated with utilisation of SRHS. Religion was not significant in the first and second model but was significant in the third model. For example, young people who professed the Islamic faith had 3.7 increased odds to utilise SRHS compared to those who did not belong to any religious sect (OR=3.7 $p<0.05$). Ecological zone was not significant in the first model but was significant in the second and third models. For instance, those in the coastal zone had 0.03 decreased odds utilise SRHS compared to those who in the savannah zone (OR=0.03 $p<0.01$). Again, self-rated health status was significant in the third model. Those who rated their health status as good had 1.8 increased odds to utilise SRHS compared to those who rated their health status as very good. Those who indicated they never faced a barrier had 0.53 decreased odds of utilising SRHS compared to those who said they had never faced a barrier (OR=0.53 $p<0.05$) (See Table 6).

Table 6: Logistic Regression Showing Association between Socio-Demographic Characteristics and Utilisation of Sexual and Reproductive Health Services

Variable	Model I OR (CI)	Model II OR (CI)	Model III OR (CI)
Age			
10-14	Ref	Ref	Ref
15-19	0.86(0.66 – 1.11)	1.04(0.68-1.6)	0.90(0.45-1.77)
20 – 24	0.78(0.54– 1.10)	1.2(0.67-2.29)	0.96(0.39-2.36)
Sex			
Male	Ref	Ref	Ref
Female	0.78**(0.64-0.94)	0.8(0.57-1.10)	1.14 (0.71-1.83)
Educational level			
Primary	Ref	Ref	Ref
JHS	1.5**(1.2-1.8)	1.21(0.82-1.79)	1.11(0.61-2.0)
SHS/technical/ Commercial	1.8**(1.3-2.6)	1.13(0.62-2.05)	0.68(1.31-1.5)
Religion			
No religion	Ref	Ref	Ref
Christianity	1.12(0.60-2.1)	1.61(0.66-3.93)	2.58(0.89-7.5)
Islam	0.95(0.49-1.85)	1.52(0.59-3.94)	3.7**(1.02-13.3)
Ecological zone			
Northern	Ref	Ref	Ref
Middle	1.6(1.24-2.01)	0.69(0.41-1.15)	0.07(0.01-0.52)
Coastal	1.1(0.83-1.45)	0.38**(0.22-0.67)	0.03***(004-0.20)
Disability Type			
Hearing impaired	-	Ref	Ref
Visually impaired	-	2.36** (1.15-4.8)	1.29(0.54-3.1)
Self-rated health status			
Very good	-	Ref	Ref
Good	-	1.46(1.02-2.07)	1.8**(1.1-3.0)
Very bad	-	1.83(0.87-3.86)	2.2(0.75-6.60)
Bad	-	0.97(0.52-1.79)	0.61(0.27-1.38)
Health Insurance subscription		-	
Yes	-	-	Ref
No	-	-	0.98(0.49-1.98)
Ever faced a challenge		-	
Yes		-	Ref
No	-	-	0.58(0.31-1.1)
Ever faced a barrier		-	
Yes		-	Ref
No	-	-	0.52**(0.28-0.95)
Pseudo R2	0.0185	0.0364	0.111
Prob > chi2	0.0000	0.0000	0.0000

Ref=reference; OR=Odds Ratio CI=Confidence Interval**p<0.05 ***p<0.001

Source: Field Survey (2017)

Challenges in Accessing Sexual and Reproductive Health Services

In Table 7, results from the study on the proportions of young people with disabilities who face challenges in accessing SRHS are presented. Eighty seven per cent (87%) (87% hearing impaired and 83% visually impaired) of the respondents indicated that they had ever faced a challenge in their quest to accessing SRHS. With the Chi squared test, it is shown that there is statistical significant difference in ecological zone (X^2=17.9, p=0.00) and ever faced a challenge in accessing SRHS. The adolescent's aged 15-19 reported highest proportion (87%) of ever faced a challenge in accessing SRHS (88% hearing impaired and 82% visually impaired). The males reported the highest proportion (89%) of ever faced a challenge. The proportions were about the same in terms of educational level of the respondents and ever faced a challenge. For instance, the results indicate that for those in the primary school, 88 per cent (90% hearing impaired and 75% visually impaired) reported ever faced a challenge in accessing SRHS while those in JHS and SHS all reported (86%).

Furthermore, the results for religious affiliation show that those in the Islamic religious sect reported the highest proportion (92%) (93% hearing impaired and 82% visually impaired) of ever faced a challenge in accessing SRHS. Those in northern zone recorded the highest (90%) proportion of ever faced a challenge (96% hearing impaired and 61% visually impaired) (See Table 7).

Table 7: Challenge in Accessing Sexual and Reproductive Health Services by Socio-Demographic Characteristics of Respondents

Variable	Disability Type				Total		Chi-Squared	
	Hearing Impaired		Visually Impaired					
	n	%	n	%	n	%	X^2	P-Value
Ever faced a challenge	1199	87.4	164	82.3	1363	86.8		
Age							0.15	0.93
10-14	231	88.3	41	75.6	272	86.4		
15-19	738	87.7	90	82.2	828	87.1		
20-24	230	85.6	33	90.9	263	86.3		
Sex							3.26	0.07
Male	691	90.3	86	77.9	777	88.9		
Female	508	83.5	78	87.2	586	84.0		
Educational level							0.57	0.75
Primary	404	89.9	69	75.4	473	87.7		
JHS	602	86.4	72	86.1	674	86.4		
SHS/Technical/ Commercial	193	85.5	23	91.3	216	86.1		
Religion							5.87	0.05
No religion	29	75.9	6	100	35	80.0		
Christianity	999	86.8	136	81.6	1135	86.2		
Islam	171	93.0	22	81.8	193	91.7		
Ecological zone							17.91	0.00
Northern	209	95.7	41	61.0	250	90.0		
Middle	687	88.5	109	89.0	796	88.6		
Coastal	303	79.2	14	92.9	317	79.8		

Source: Field Survey (2017)

Challenges faced in accessing Sexual and Reproductive Health Services

From Table 8, the major challenges were high cost of health services (28%) and physical barriers (26.2%). It was found from the study that 29 per cent of the males (27% hearing impaired and 45% visually impaired) and 27 per cent of the females (27% hearing impaired and 29% visually impaired) indicated their challenge was high cost of health services. Again, it was found that 28 per cent of the males (28% hearing impaired and 36% visually impaired) while 23 per cent of the females (22% hearing impaired and 28% visually impaired) indicated their challenge was physical barriers (See Table 8).

Table 8: Challenges Ever Faced in Accessing Sexual and Reproductive Health Services

Variable	Sex						
	Males			Females			
	Disability Type			Disability Type			Overall Total
	Hearing impaired	Visually impaired	Total	Hearing impaired	Visually impaired	Total	
Financial constraints	26.8	44.8	28.6	27.0	29.4	27.3	28.0
Physical barriers	27.6	35.8	28.4	22.4	28.0	23.1	26.2
Discrimination by health professionals	21.2	9.0	20.1	26.3	20.6	25.6	22.3
Lack of medical equipment adapted for my usage	14.0	18.0	14.4	13.3	23.5	14.7	14.5
Problem of communication	22.6	4.5	20.9	27.0	14.7	25.4	22.8

Source: Field Survey (2017)

Logistic regression models were used to estimate the association between socio-demographic characteristics of YPWDs and ever faced a challenge in accessing SRHS. This was done using sequential regression modelling. Three models were run based on the framework that was adapted to guide the study. In the model, there are three key variables, thus, predisposing factors, need factors and enabling/ disabling factors. The pseudo R^2 values for the three models considered in the analyses were model 1 (0.029), model II (0.042) and model III (0.059). It could be seen that the pseudo R^2 increased steadily with each succeeding model (see Table 9). Sex, ecological zone, educational level, self-rated health status and ever faced a barrier were significantly associated with challenges in accessing SRHS.

The study found that females are less likely to face a challenge compared to the males. This was significant in the second and third models. The likelihood of ever faced a challenge also varied by ecological zone and this was significant in all the models. For example, in the complete model, those in the coastal zone had 0.42 decreased odds of ever facing a challenge compared to those in the northern zone (OR=0.42, $p<0.05$). It was also shown that those in SHS/Technical/Commercial had 0.54 decreased odds of facing a challenge compared to those in primary (OR=0.54, $p<0.05$). Self-rated health status, which was not significant in the second model showed to be significant in the complete model. It was observed that, those who rated their health status as bad were had 0.47 decreased odds of facing a challenge as compared to those who rated their health status as very good (OR=0.47, $p<0.05$). Also, the respondents who indicated they had never faced a barrier had 0.37 decreased odds of facing a challenge compared to those who ever faced a barrier (OR=0.37, p<0.001) (See Table 9).

Table 9: Logistic Regression Model Showing Socio-Demographic Characteristics and Challenges in Accessing Sexual and Reproductive Health Services

Variable	Model I	Model II	Model III
	OR (CI)	OR (CI)	OR (CI)
Age			
10-14	Ref	Ref	Ref
15-19	1.10(0.70-1.73)	1.3(0.82-2.18)	1.37(0.82-2.26)
20 – 24	1.05(0.58-1.92)	1.5(0.77-2.96)	1.15(0.77-3.04)
Sex			
Male	Ref	Ref	Ref
Female	0.65(0.47-0.90)	0.66**(0.46-0.95)	0.67**(0.46-0.97)
Educational level			
Primary	Ref	Ref	Ref
JHS	0.80(0.53-1.21)	0.685(0.43-1.10)	0.66(0.41-1.07)
SHS/Technical/ Commercial	0.72(0.40-1.29)	0.58(0.31-1.10)	0.54**(0.28-1.04)
Religion			
No religion	Ref	Ref	Ref
Christianity	1.72(0.73-4.03)	1.35(0.50-3.7)	1.31(0.47-3.60)
Islam	2.8(1.05-7.45)	2.6(0.82-8.42)	2.25(0.69-7.30)
Ecological zone			
Northern	Ref	Ref	
Middle	1(0.62-1.62)	1.00(0.60-1.67)	0.83(0.47-1.48)
Coastal	0.48**(0.29-0.8)	0.46**(0.27-0.79)	0.42**(0.23-0.76)
Disability type			
Hearing impaired	-	Ref	Ref
Visually impaired	-	0.49(0.29-0.80)	0.4**(0.27-0.78)
Self-rated health status			
Very good	-	Ref	Ref
Good	-	0.91(0.62-1.36)	0.91(0.60-1.37)
Very bad	-	0.89(0.44-1.79)	0.83(0.40-1.72)
Bad	-	0.51(0.27-0.98)	0.47**(0.24-0.93)
Health Insurance sunscription		-	
Yes	-	-	Ref
No	-	-	1.11(0.63-1.96)
Ever faced a barrier	-	-	
Yes	-	-	Ref
No	-	-	0.37***(0.2-0.62)
Pseudo R2	0.0288	0.0416	0.0597
Prob > chi2	0.0000	0.0000	0.0000

Ref = reference; OR= Odds Ratio CI=Confidence Interval **p<0.05 ***p<0.001

Source: Field Survey (2017)

Barriers to the Use of Sexual and Reproductive Health Services

The proportions on the barriers in accessing SRHS among YPWDs are shown in Table 10. Eighty seven per cent (87%) of the respondents indicated they had ever faced a barrier in their quest to accessing SRHS. With the Chi squared test, it is shown that there is statistical significant difference in ecological zone (X^2=17.9, p=0.00) and ever faced a challenge in accessing SRHS The adolescents aged 20-24 reported the highest proportion (88%) of ever faced a barrier in accessing SRHS (88% hearing impaired and 88% visually impaired). It was shown that the same proportion (87%) of males and females reported ever-faced a barrier in accessing SRHS. Those in middle zone recorded the highest (90%) proportion of ever faced a barrier (90% hearing impaired and 92% visually impaired) in accessing SRHS (See Table 10).

Table 10: Barriers in Accessing Sexual and Reproductive Health Services by Socio demographic Characteristics

Variable	Disability Type				Total		Chi-Square	
	Hearing Impaired		Visually Impaired					
	n	%	n	%	n	%	X^2	P-Value
Ever faced a Barrier	1190	87.8	159	12.1	1349	86.8		
Age							0.50	0.78
10-14	229	87.8	40	85.0	269	87.4		
15-19	731	85.6	86	91.9	817	86.3		
20-24	230	87.8	33	87.9	263	87.8		
Sex							0.02	0.88
Male	685	86.6	81	87.7	766	86.7		
Female	505	86.3	78	91.0	583	87.0		
Educational level							1.23	0.54
Primary	403	85.1	63	95.2	466	86.5		
JHS	596	86.4	75	85.3	671	86.3		
SHS/Technical /Commercial	191	89.5	21	85.7	212	89.2		
Religion							1.79	0.408
No religion	31	80.7	6	100	37	83.8		
Christianity	989	86.1	130	89.2	1119	86.4		
Islam	170	90.0	23	87.0	193	89.6		
Ecological Zone							18.6	0.000
Northern	207	77.8	41	90.2	248	79.8		
Middle	689	89.6	103	92.2	792	89.9		
Coastal	294	85.4	15	66.7	309	84.5		

Source: Field Survey (2017)

Barriers Faced in Accessing Sexual and Reproductive Health Services

The barriers to the use of SRHS are problem of communication, cost of health services, physical barriers, discrimination by health professionals, and lack of medical equipment adapted for usage. The major barrier the respondents faced was problem of communication (33%).

The results indicated that 32 per cent of the males (32% hearing impaired and 29% visually impaired) and 35 per cent of females (32% hearing impaired and 48% visually impaired) reported problem of communication as the main barrier that hindered them from accessing SRHS sometimes even when they are having SRH problems (See Table 11).

Again, it was found that 30 per cent of the males (28.2% hearing impaired and 40% visually impaired) and 29 per cent of the females (28% hearing impaired and 35% visually impaired) indicated that their main barrier was physical barrier to accessing SRHS (See Table 11).

Table 11: Barriers faced in Accessing Sexual and Reproductive Health Services

Variables	Sex						Overall Total
	Males			Females			
	Disability Type			Disability Type			
	Hearing impaired	Visually impaired	Total	Hearing impaired	Visually impaired	Total	
Cost of health services	27.5	40.0	28.6	26.1	50.7	29.5	29.1
Physical barriers	28.2	40.0	29.5	28.4	34.8	29.3	29.4
Discrimination by health professionals	18.5	22.9	18.9	17.9	24.6	18.8	18.9
Lack of medical Equipment adapted for my usage	9.4	12.9	9.8	9.4	17.4	10.5	10.2
Problem of communication	32.2	28.6	31.8	32.4	47.8	34.5	33.0

Source: Field Survey (2017)

Logistic regression was used to further analyse the factors associated with ever faced a barrier with three stepwise models. In Model I, predisposing factors were used to estimate their effect on ever faced a barrier and controlled for the effects of other socio-demographic variables. Model II shows the relationship between predisposing and need factors and ever faced a barrier and model III was used to estimate the combined effects of predisposing, need factors and enabling/disabling factors on ever faced a barrier in accessing SRHS. The logistic regression results are presented in Table 12. The pseudo R^2 values for the Model I, Model II and Model III are 00214, 0.0324 and 0.0579 respectively, which showed an increase from Model I to Model III. The best model that best predicts the barriers YPWDS face in accessing SRHS is the model with the highest pseudo R^2 and that is the model III (0.0324).

It was shown in the complete model that ecological zone, disability type and ever faced a challenge were associated with ever faced a barrier in accessing SRHS. Specifically, with the ecological zone, which was not significant in both the first and second model was significant in the complete model. Those in the middle ($OR=3.4$ $p<0.001$) and coastal zone $OR=2.3$ $p<0.005$) had increased odds of 3.4 and 2.3 respectively of facing a barrier in accessing SRHS compared to those in the northern zone. In relation to disability type, the visually impaired ($OR=2.1$ $p<0.05$) had 2. 1 increased odds of facing a barrier than the hearing impaired (See Table 12).

Table 12: Logistic Regression Model Showing Socio-Demographic Characteristics and Ever Faced a Barrier in Accessing Sexual and Reproductive Health Services

Variable	Model I OR (CI)	Model II OR (CI)	Model III OR (CI)
Age			
10-14	Ref	Ref	Ref
15-19	0.91(0.57-1.43)	0.88(0.54-1.44)	0.89(0.53-1.48)
20 – 24	0.99(0.72-1.38)	1.07(0.55-2.12)	1.14(0.56-2.29)
Sex			
Male	Ref	Ref	Ref
Female	0.99(0.72-1.37)	1.02(0.71-1.46)	1.07 (0.74-1.56
Educational Level			
Primary	Ref	Ref	Ref
JHS	0.98(0.65-1.45)	1.13(0.73-1.75)	1.08(0.68-1.71)
SHS/Technical/ Commercial	0.97(0.53-1.76)	0.99(0.51-1.88)	0.97(0.49-1.92)
Religion			
No religion	Ref	Ref	Ref
Christianity	1.28(0.51-3.23)	1.26(0.46-3.46)	1.34(0.48-3.75)
Islam	2.11(0.75-5.87)	2.18(0.71-6.65)	2.19(0.70-6.85)
Ecological Zone			
Northern	Ref	Ref	Ref
Middle zone	2.46(1.63-3.70)	2.91(1.88-4.49)	3.4***0(2.17-5.3)
Coastal	1.5(0.96-2.34)	1.8(1.12-2.96)	2.32**(1.36-3.97)
Disability Type			
Hearing impaired	-	Ref	Ref
Visually impaired	-	1.76(0.91-3.39)	2.1**(0.98-4.43)
Self-rated health status			
Very Good	-	Ref	Ref
Good	-	1.10(0.76-1.60)	1.16(0.78-1.73)
Very bad	-	1.02(0.52-1.99)	0.97(0.48-1.97)
Bad		0.91(0.45-1.86)	0.98(0.47-2.06)
Health Insurance subscription			
Yes	-	-	Ref
No	-	-	1.17(0.67-2.07)
Ever faced a challenge		-	
Yes	-	-	Ref
No	-	-	0.35***(0.2-0.57)
Pseudo R2	0.0214	0.0324	0.0579
Prob > chi2	0.0000	0.0000	0.0000

Ref = reference; OR= Odds Ratio CI=Confidence Interval **p<0.05 ***p<0.001

Source: Field Survey (2017)

Discussion

Utilisation of Sexual and Reproductive Health Services

Utilisation of SRHS was high among YPWDs. The finding of high utilisation in this study substantiates the findings from previous studies conducted in England by De Visser and O'Neill (2013), Ethiopia by Motuma (2012) and Feleke et al. (2013) and Nigeria by Arulogun et al. (2013). The possible reasons for the high utilisation of SRHS recorded in this study could be as a result of information the respondents receive on SRHS as observed by Ayehu, Kassaw & Hailu (2016). Another plausible explanation for the high utilisation as stated by Addo and Gyamfuah (2015) and Jaleta et al. (2017) could be due to the fact that this current study considered only in- school young people with disabilities and for that matter did not consider all the types of disabilities and also those who were not in school. Again, the high level of utilisation could be explained as stated by Badu et al. (2016) that this study considered only two groups of disabled young people thus the visually impaired and the hearing impaired. Moreover, the high level of utilisation might also be as a result of the fact that most of the schools were located in urban centres (Ayehu, Kassaw & Hailu, 2016) and as a result most of these young people could have access to these services due to their availability in those areas.

Low utilisation of SRHS has been observed in other studies in other settings. For example, in Ethiopia, Kassa et al. (2016) found 26 per cent of YPWDs to be using sexual and reproductive healthcare services. Olaleye, et al. (2007) in Nigeria also found 22 per cent of young people with disabilities to be using sexual and reproductive health services. Additionally, Alemu and

Fantahun (2011) in Ethiopia found low utilisation of SRHS among YPWDs. Abajobir and Seme (2014), Ayehu, Kassaw and Hailu (2016) and Jaleta et al (2017) also found low utilisation among young people in Ethiopia. In Ghana, Addo and Gyamfuah (2015) in Sawua found that there is low utilisation of SRHS among young people. Similarly in the Kumasi Metropolis, Amankwaa, Abass, and Gyasi (2017) also found low level of utilisation of SRHS among young people.

The reasons accounting for the low utlisation as stated by Ayehu, Kassaw and Hailu (2016) might be due to unavailability of Youth Friendly Health facilities or Youth Centers, low educational status/level, low socio-economic status, rural residence, transportation difficulties and cultural norms. Furthermore, lack of information and not perceiving the need for SRHS. Some of these previous studies, however, considered the general population of young people but this study considered young people with disabilities. Therefore, the comparisons of the study results with those previous should be made with some degree of caution.

The results suggest that religion, ecological zone and self-rated health status were significantly associated with utilisation of SRHS. Young people who professed the Islamic faith and those who rated their health status as good were more likely to use SRHS. Furthermore, those in the coastal zone and those who never faced a barrier and a challenge were less likely to utilise SRHS. These variables as explained in the conceptual framework can be associated with the predisposing factors such as religion, ecological zone and the need for care factors such as self-rated health status and utilisation of SRHS (Anderson & Newman, 1973).

It was found that those who are Moslems are more likely to use SRHS compared to those with no religion. The findings on religious affiliation are consistent with the findings of Addo and Gyamfuah (2015) and Moreau, Trussell and Bajos (2013) who explained that those who professed religiousity are more likely to use SRHS. As explained by Moreau, Trussell and Bajos (2013), this could be the anti-contraception stance of the Catholic Church, while other religious denominations, including Islam, are less restrictive in this regard (Moreau, Trussell & Bajos, 2013). Another possible reason as indicated by Ayehu et al. (2016) is that sometimes there is SRH communication among young people and their parents (Hall, Moreau & Trussell, 2012). For example, as indicated by Mohamed (2017), this sexual communication and advices could be reinforced by the religious teachings which expect young people to be obedient to their parents and for that matter, will pay heed to their parents when they want to send them to seek health services in general whenever they are not feeling well.

Young people with disabilities in the coastal ecological zone were less likely to use SRHS compared to those in the northern zone. The findings in this study corroborate other studies done in Ghana. As explained by Abekah-Nkrumah and Abor (2016) and Amankwaa, Abass, and Gyasi (2017) utilisation of SRHS among young people in the southern part of Ghana was low. The plausible explanation to the low use of SRHS among YPWDs could be attributable to the fact that there are enough health extension programmes and health extension workers and health facilities in promoting and providing the services to the young people and for that matter young people in the southern part might not have more SRH challenges compared to those in the northern part of Ghana.

Challenges in accessing Sexual and Reproductive Health Services

The study revealed that the majority (87%) of the respondents face challenges in their quest to accessing SRHS. The major challenges the respondents faced in accessing SRHS are high cost of health services, physical challenges and problem of communication. The findings on the challenges YPWDs face in accessing SRHS concur with what has been documented in other settings such as Uganda (Ahumuza, et al., 2014), Ethiopia (Ayehu, Kassaw & Hailu, 2016), Uganda and Kenya (Tanabe et al., 2015), Zimbabwe (Rugoho & Maphosa, 2017) and Ghana (Ganle et al., 2016). These challenges are documented by WHO as well as the united nations population fund as key challenges affecting the easy access to SRH services among young people with disabilities (WHO, 2009). Similar findings were also found by Gibson and O'Connor (2010). They argued that PWPDs' ability to access health services is influenced by architectural and transportation factors. This findings contrast SRH rights that are already recognized in international human rights and other consensus documents such as the CRPWDs.

Sex, education, ecological zone and self-rated health status were significantly associated with challenges in accessing SRHS. It was found that females, those in SHS/Technical/Commercial, those in the coastal zone and those who rated their health status as bad were less likely to face challenges. According to the conceptual framework by Anderson and Newman (1973), some predisposing factors such as sex, education, place of origin or residence as well as need factors such as self-rated health status are associated with challenges to the utilisation of SRHS and these might be as a result of the location, the low educational level of the individual and the poor health status of the individual.

The results also indicated that females are less likely to face challenges compared to the males. This means that males experienced more challenges in relation to utilisation of SRHS from service providers as observed by (Ahumuza et al., 2014). The possible explanation could be that as consistently found in most literature in health services research (Badu et al., 2016) females are mostly associated with the use of SRHs. As asserted by Badu et al (2016), the findings could imply that males with disabilities are not treated equally as females and may experience negative attitudes from health facility staff (Badu et al., 2016) due to the notion that SRHS are regarded as female affair. Another plausible explanation to this findings could be as a result of the fact that as SRH has been perceived as a female affair, the health workers are not trained to handle the needs male PWDs might present (Ahumuza et al., 2014).

Young people with SHS/Technical/Commercial level of education are less likely to ever face a challenge compared to those in primary. This means that young people who are at primary level of education are more likely to face challenges in accessing SRHS. This finding mirrors the work of Ayehu, Kassaw and Hailu (2016). The explanation to this could be that young people who had lower levels of educational attainment might be less likely to have more information and better knowledge about the importance and need of SRHS (Kassa et al., 2016). Furthermore, those in primary level of education might not be more empowered to fight for their rights as indicated by Abajobir and Seme (2014).

Young people with disabilities in the coastal ecological zone were less likely to face challenges compared to those in the northern zone. This finding corroborates other studies done in Ghana. For instance, Abekah-Nkrumah and Abor (2016) indicated that there is a positive effect of being located in the southern part of the country and access to SRHS. This is as a result of the fact that the southern zone (Middle and Coastal) is 'resource-rich' and for that matter, there is the concentration of social services such as health facilities. This invariably improves access to SRHS compared to the negative effect of the northern belt where there is high prevalence of poverty and inadequate infrastructure such as health facilities. The poverty-stricken nature of the northern zone has been confirmed in all the rounds of the GLSS–1991/92, 1998, 2005/06 and 2014 (Abekah-Nkrumah & Abor, 2016).

The respondents who rated their health status as bad were less likely to face a challenge compared to those who rated their health status as very good. This is consistent with the findings in other studies on self-rated health status (Afilalo et al., 2004; Dhingra, et al., 2010; Meireles et al., 2015). The reason for this could be that those who rated their health status as bad were only thinking of how to get themselves treated irrespective of the challenges they will go through and perhaps might not necessary label those issues they will face as challenges (Bourne, 2015).

Barriers to the use of Sexual and Reproductive Health Services

The study revealed that there were barriers to the utilisation of SRHS in Ghana. This study found that some of the barriers young people with disabilities faced are similar to those reported by young people living without disabilities. The major barriers the respondents faced were problem of communication, cost of health services, physical barriers and discrimination by health professionals. These are consistent with previous works done in other parts of the world and in Ghana. Previous studies have reported that PWDs are reticent to access SRHS due to communication problems (Mprah 2013), cost of health services (Burke, et al, 2017) and the fear of being discriminated (Abdul Karimu, 2017; Badu, Agyei-Baffour, & Opoku, 2016; Asante, & Sasu, 2015). The findings of the present study are also in line with the observations of previous studies in other parts of the world, such as Ethiopia (Ayehu, Kassaw & Hailu, 2016), Senegal (Burke et al., 2017), Nepal (Van Hees et al., 2015) and Tanzania (Mbeba et al., 2012).

These barriers were observed in a number of other studies a decade ago (Amuyunzu-Nyamongo et al., 2005; Dehne, Riedner & Berer 2005; Katz & Nare, 2002; Kiapi-Iwa, & Hart, 2004). These, therefore, highlight the need to better address the obstacles that continue to persist over time and setting across all types of sexual and reproductive health services and more especially among young people with disabilities (Biddlecom, Singh, & Munthali, 2007).

This observation is, however, inconsistent with Esantsi et al.'s (2015) finding in slum communities in the Brong Ahafo Region of Ghana that the majority of young people (adolescents) found it easy to access SRHS. The possible explanation, as indicated by Amankwaa, Abass, and Gyasi (2017) to this difference might be as a result of differences in the study setting.

It was found that ecological zone, disability type and ever faced a challenge were significantly associated barriers to the utilization of SRHS. All these factors in the conceptual framework by Anderson and Newman (1973) as well as need factors such as disability type are associated with the barriers to the use of SRHS.

From the study, the visually impaired were more likely to face a barrier in accessing SRHS compared to the hearing impaired. The results in this current study on the disability type and challenges in using health services are consistent with the findings in other studies. For example, the works by Badu Agyei-Baffour, and Opoku (2016) and Badu (2015) all indicate that the visually impaired are more likely to face challenges compared to the hearing impaired when accessing healthcare. As indicated by Burke et al. (2017), the possible reason could be as a result of the fact that those who are visually impaired will need the assistance of another person to help them get to the place they want to seek the SRHS from. Unlike those who are hearing impaired, the visually impaired cannot easily move to the places they want to seek SRHS from.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents an overview of the study, methods of the study, summary of the main findings and provide conclusions and some recommendations including areas for further research. The study assessed the utilisation of SRHS among young people with disabilities in Ghana. The specific objectives were to: determine the use of sexual and reproductive health services among young people with disabilities; examine the challenges to accessing sexual and reproductive health services among young people with disabilities in Ghana and examine the barriers to the utilisation of sexual and reproductive health services among young people with disabilities. Hypotheses were also tested to examine the association between some variables. The conceptual framework for the study was the health care service utilization model by Andersen and Newman (1973). It identifies the interplay of predisposing factors, enabling factors and the need for care factors in the utilization of Sexual and Reproductive Health Services.

The data presented in the thesis were collected as part of a nationwide project titled *"Sexual and Reproductive Health and Rights and Leisure Needs of Young People with Disability in Ghana"*. The study was a cross-sectional study among young people with disabilities selected from 16 special schools in Ghana. A total number of 2127 young people were used for the study.

Summary of Key Findings

The findings of the study point to the fact more than six out of 10 (65.4%) young people with disabilities have ever utilised SRHS. Young people who professed the Islamic and those who rated their health status as good were more likely to use SRHS. Furthermore, those who indicated they never faced a barrier and a challenge were less likely to utilise SRHS. Also, the results from the study showed that majority (87%) of the respondents indicated they had ever faced a challenge in their quest to accessing SRHS. The major challenges they faced in accessing SRHS are: cost of health services, physical challenges, and discrimination by health professionals and problem of communication. From the results of the study, about 8 out of 10 (86.7%) young people have ever faced a barrier in accessing SRHS in Ghana. The major barriers the respondents faced are problem of communication, cost of health services, physical barriers, and discrimination by health professionals.

Conclusions

The following conclusions could be drawn from the study. The results provide evidence that there is high utilisation of SRHS by YPWDs in Ghana. Religion, ecological zone and self-rated health status were found to be the main factors associated with utilisation of SRHS among YPWDs. It was also evident that YPWDs face challenges and barriers in their quest to accessing SRHS. The major challenges and barriers were financial constraints, problem of communication and physical barriers. These challenges and barriers were associated with sex, educational level, ecological zone, disability type and self-rated health status. This means at the national level, these findings contrast the commitment by the government of Ghana through the PWDs Act and the 1992 constitution to guarantee universal access to health as a human right.

Recommendations

Considering the findings made from the study, the following recommendations are being made.

1. To sustain high utilization of SRHS, the Ministry of Health and the Ministry of Education should strengthen health education to YPWDs on the need to use SRHS.
2. To address communication as a major barrier, government of Ghana should make it an intervention priority to produce some of the SRH information in electronic forms for young people who are visually impaired to have access to SRHS.
3. The Ministry of Health in collaboration with the Ministry of Education should make it an intervention priority to strengthen the training on the use of sign language to a special group of nurses to attend to the needs of the hearing impaired when they visit health facilities for SRHS.
4. The Government of Ghana should strengthen the free healthcare services that YPWDs access as this can reduce SRH problems they face including HIV and AIDS.

Areas for Further Research

The following areas may be considered for further research:

1. There should be a comparative study on both in-school and out-school YPWDs to examine the knowledge, experiences, access to and use of SRH services.

2. There should be a qualitative study to gain deeper understating to the challenges and barriers YPWDs are facing in accessing SRHS.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

Section 1: Socioeconomic and family characteristics

Section 2: Knowledge and sources of information on SRHR

Section 3: Current/most recent heterosexual relationship

Section 4: Types of heterosexual contact

Section 5: Knowledge and ever-use of contraceptives

Section 6: Knowledge of HIV and AIDS and other sexually transmitted infections

Section 7: Sexuality, gender and norms

Section 8: Use and challenges in accessing healthcare

Section 9: Leisure needs and sexual reproductive health

ZONE…………………………………..REGION…………………………….

SCHOOL NAME………….……DISABILITY

TYPE………..QUESTIONNAIRE NUMBER……………………….………..

Section 1: Socioeconomic and family characteristics

1.1. Sex of respondent	Male 1 Female 2	
1.2 What day, month and year were you born?	Day ☐ ☐ Month ☐ ☐ Year	☐☐☐☐
1.2. How old were you at your last birthday?	………………………….. CROSS-CHECK WITH DATE OF BIRTH AND RECONCILE	
1.3. Level of education **(CIRCLE CURRENT SCHOOL LEVEL)**	Primary 1 JHS 2 SHS 3 Technical 4 Commercial or Secretarial 5	
1.4. What is your religion?	None Catholic 2 Protestant 3 Muslim 4 Pentecostal 5 Charismatic 6 Other (SPECIFY) ……………7	
1.5. How often do you usually attend religious services?	Every day At least once a week 2 At least once a month 3 At least one a year 4 Less than once a year 5 Never	
1.6. How important is religion in your life?	Very important 1 Important 2 Not important 3	
1.7. Now I have some questions about your family. Is your father alive?	Yes 1 No 2	
1.8. Is your father deaf/blind?	Yes 1 No 2	
1.9. Does he live in the same household as you?	Yes 1 No 2	
1.10. Do you find it difficult or easy to talk with your father about things that are important to you?	Very easy 1 Easy 2 Average 3 Difficult 4 Very difficult 5 Do not see him 6	
1.11. Have you ever discussed sex-related matters with your father?	Yes 1 No 2 Often 1	

1.12. If YES Often or occasionally?	Occasionally Never	2 3	
1.13. Is your mother alive?	Yes No	1 2	
1.14. Is your mother deaf/blind?	Yes No	1 2	
1.15. Does she live in the same household as you?	Yes No	1 2	
1.16. Do you find it difficult or easy to talk with your mother about things that are important to you?	Very easy Easy Average Difficult Very difficult Do not see her	1 2 3 4 5 6	

1.17 Have you ever discussed sex-related matters with your mother? 1.18 If YES Often or occasionally?	Yes No Often Occasionally Never	1 2 1 2 3	
1.19 Do you have any older brothers?	Yes No	1 2	
1.20 Is any blind/deaf	Yes No	1 2	
1.21 If yes how many	…………………		
1.22 Do any live in the same household?	Yes No	1 2	
1.23 Do you have any older sisters?	Yes No	1 2	
1.24 Is any blind/deaf	Yes No	1 2	
1.25 If yes how many?	…………………..		
1.26 Do any live in the household?	Yes No	1 2	
1.27 And now I have some questions about your social activities. Do you ever go to clubs or parties where young people dance?	Yes No	1 2	
1.28 IF **YES**. How many times in the last month?	Number of times………............		

1.29 Do you ever go to the movies?	Yes 1 No 2	
1.30 IF **YES.** How many times in the last month?	Number of times……..........	
1.31 Have you ever drunk alcohol?	Yes 1 No 2	
1.32 IF **YES**. On how many days in the last month have you drunk alcohol?	Number of days…………..	
1.33 Have you ever smoked cigarettes??	Yes 1 No 2	
1.34 IF YES. How many have you smoked in the last month	Number of Cigarettes………………….	
1.35 And now I have some questions about Health insurance. Hav you ever registered for NHIS?	Yes 1 No 2	
1.36 Is your health insurance card valid?	Yes 1 No 2	
1.37 Have you ever used your NHIS card in accessing healthcare?	Yes 1 No 2	
1.38 If Yes on how many times in the last 6months have you used your NHIS card to access healthcare?	Number of days ☐☐	

Section 2: Sources of information on, and Knowledge of Reproductive Health

2.1	Young people learn about **puberty** - I mean the ways in which boys' and girls' bodies change during the teenage years - from many sources. They may learn from teachers at school, parents, brothers and sisters, from friends, from doctors or they may learn from books, films and magazines. What has been the most important source of information for you on this topic? And the second most important? CIRCLE MOST IMPORTANT IN COL 1 AND SECOND MOST IMPORTANT IN COL 2		(1) Most Important	(2) Second most important	(3) Preferred
		School teacher	01	01	01
		Mother	02	02	02
		Father	03	03	03
		Brother	04	04	04
		Sister	05	05	05
		Other family members	06	06	06
		Friends	07	07	07
		Doctors	08	08	08
		Books/magazines	09	09	09
		Films/Videos	10	10	10
		Other	11	11	11
2.2	From whom, or where, would you prefer to have received more information on this topic? CIRCLE ONE ANSWER IN COL. 3	(Specify………)		………... …………. …..	………... ………
2.3	Now I want to ask you a similar question about sources of information on the **sexual and reproductive systems of men and women** - I mean where eggs and sperm are made and how pregnancy occurs. What has been the most important source of information on this topic? And the second most important? CIRCLE IN COLS. 1 AND 2.		(1) Most Important	(2) Second most important	(3) Preferred
		School teacher	01	01	01
		Mother	02	02	02
		Father	03	03	03
		Brother	04	04	04
		Sister	05	05	05
		Other family members	06	06	06
		Friends	01	01	01
		Doctors	02	02	02
		Books/magazines	03	03	03
		Films/Videos	04	04	04
		Other	05	05	05
2.4	From whom or where, would you prefer to receive (or prefer to have received) more information on this topic? CIRCLE ONE ANSWER IN COL. 3	(Specify………)	………...	………... …	………..

		(1) Most Important	(2) Second most important	(3) Preferred
2.5 Now there is a third similar question about sources of information on **relationships** - I mean how boys should treat girls and vice versa. What has been the most important source of information on this topic? And the second most important? CIRCLE IN COLS 1 AND 2	School teacher	01	01	01
	Mother	02	02	02
	Father	03	03	03
	Brother	04	04	04
	Sister	05	05	05
	Other family members	06	06	06
	Friends	01	01	01
	Doctors	02	02	02
	Books/magazines	03	03	03
		04	04	04
2.6 From whom, or where, would you prefer to receive more information on this topic? CIRCLE ONE ANSWER IN COL. 3	Films/Videos	05	05	05
	Other (Specify………)	……….	………..	………..
2.7 Some schools have classes on puberty, on sexual and reproductive systems and on relationships between boys and girls. Did you ever attend school classes on any of these topics?	Yes		1	
	No		2	
	Not sure		3	
2.8 Do you think that there should be more, fewer classes or about the same classes?	More		1	
	Less		2	
	About right		3	
2.9 Now I have some other questions on sex and reproduction. I will read to you some statements. Please tell me whether you think the statement is true, or false, or whether you don't know.	True	False	Don't Know	
A woman can get pregnant on the very first time that she has sexual intercourse.	1	2	3	
2.1A woman stops growing after she has had sexual intercourse for the first time.	1	2	3	

2.11 Masturbation causes serious damage to health.	1	2	3	
2.12 A woman is most likely to get pregnant if she has sexual intercourse half way between her periods.	1	2	3	

Section 3: Current/most recent heterosexual relationship

3.1 Have you ever had a girl/boyfriend? By girl/boyfriend, I mean someone to whom you were sexually or emotionally attracted and whom you 'dated' (*use local terms to specify going out together unaccompanied by other adults*)	Yes No	1 2 →	Section 4
How many girl/boy friends have you had?	Number	☐☐	
Ask the following sequence of questions about CURRENT (MOST RECENT) girl/boy friend			
3.3 How old is boy/girlfriend? *Probe for current age*	Age	☐☐	
3.4 When you started your relationship, was boy/girlfriend single, married, divorced or separated?	Single Married Divorced Separated	1 2 3 4	
3.5 When you started your relationship with boy/girlfriend, was boy/girlfriend a full time student, working or neither?	Full time student Working Neither	1 2 3	
3.6 How many months or years ago did you first 'date' boy/girlfriend?	Months ago ☐☐ or Years ago	☐☐	
3.7 Has the relationship ended?	Yes No	1 2 →	3.10
3.8 How many days/weeks/months did it last? I mean from the first time you 'dated' to the last time?	Days Or Weeks Or Months	☐☐ ☐☐	
3.9 Who decided to end the relationship? You, boy/girlfriend or both of you.	Me Boy/girlfriend Both Other	1 2 3 4	
3.10 During the time you were/have been 'dating' boy/girlfriend did you 'date'/have	Yes No	1 2	

you 'dated' anyone else?			
1 How would you describe your relationship with boy/girlfriend? Was (is) it (a) a casual friendship; (b) a serious relationship but with no intention of marriage; or (c) an important relationship that might lead to marriage?	(a) Casual Serious Important/might lead to marriage Engaged to be married	1 2 3 4	

3.12 And how do you think boy/girlfriend would describe her /his relationship to you? (a) as a casual friendship; (b) a serious relationship but with no intention of marriage; (c) an important relationship that might lead to marriage?	(a) Casual (b) Serious (c) Important/might lead to marriage	1 2 3	
3.13 Did you and boy/girlfriend have any physical contact, such as holding hands, hugging or kissing?	Yes No	1 2	
3.14 Did you ever kiss boy/girlfriend on the lips?	Yes No	1 2	
3.15 Did you ever touch boy/girlfriend vagina/penis with your hand?	Yes No	1 2	
QUESTION 3.16 - 3.33 ARE ONLY FOR THOSE WHO HAVE EXPERIENCED PENETRATIVE SEX			
3.16 MALES: Did you ever put your penis inside girlfriends vagina? FEMALES: Did your boyfriend ever put his penis inside your vagina?	Yes No	1 2 →	 Section 4
3.17 Think back to the first time you had sex with boy/girlfriend I mean the first time that the penis was in the vagina. Would you say. **READ OUT** (a) I forced boy/girlfriend to have intercourse against her/his will	(a) I forced (b) I persuaded (c) Boy/girlfriend persuaded (d) Boy/girlfriend forced (e) Both willing	1 2 3 4 5	

(b) I persuaded boy/girlfriend to have intercourse (c) Boy/girlfriend persuaded me to have intercourse (d) Boy/girlfriend forced me to have intercourse (e) We were both equally willing			
3.18 Would you say it was planned or unexpected?	Planned	1	
	Unexpected	2	
3.19 Was this the first time that you had full sexual intercourse in your life?	Yes	1	
	No	2 →	3.25
3.20 How old were you at the time you first had sex with boy/girlfriend?	AGE	☐☐	
3.21 Did you regret having intercourse with boy/girlfriend on that first time?	Yes, regretted	1	
	No, not regretted	2	
3.22 On that first time did you or boy/girlfriend do anything to avoid a pregnancy?	Yes	1	
	No	2	
3.23 What method did you use?	Condom	1	
	Pill	2	
	Injection	3	
	Withdrawal	4	
	Safe period	5	
	Other…………………………….	6	
3.24 Did you ever discuss contraception with boy/girlfriend? IF YES Did you discuss contraception before or after you first had intercourse?	Before first intercourse	1	
	After first intercourse	2	
	Never	3	
3.25 Apart from the first time, did you and boy/girlfriend ever use a method to avoid pregnancy? IF YES Always or sometimes?	Always	1	
	Sometimes	2	
	Never	3	
3.26 What method did you and boy/girlfriend mostly use? (**MULTIPE RESPONSES**	Condom	1	
	Pill	2	
	Injection	3	

PERMITTED)	Withdrawal 4 Safe period 5 Other……………………………..	
3.27 Where did you or boy/girlfriend get this method? **(CIRCLE ONLY ONE)**	Shop 1 Pharmacy 2 Govt. Clinic/Health Centre/Hospital Private Doctor/Nurse/Clinic 4 Friend 5 Other…………………………….. Don't know 9	
3. 28 SEE Q. 3.23 Whose decision was it to use a method always/sometimes/never? Was it mainly your decision, boy/girlfriend's decision or a joint decision?	My decision 1 Boy/girlfriend's decision 2 Joint decision 3	
3.29 MALES: Did girlfriend ever become pregnant by you? FEMALES: Did you ever become pregnant by boyfriend?	Yes 1 No 2 →	 3.31
3.30 What happened to the pregnancy?	Currently pregnant 1 Abortion 2 Miscarriage 3 Live-birth 4 No sure 5	
3.31 Were you ever concerned that you might contract HIV or another sexually transmitted infection from boy/girlfriend? IF YES Very or somewhat?	Very concerned 1 Somewhat concerned 2 Not concerned 3	
3.32 Were you able to do anything to reduce the risk of infection	Yes 1 No 2	
3.33 What did you do? *Probe*	Use condoms 1 Take medicines 2 Other (…………………………..)	

Section 4: Types of heterosexual contact

INTERVIEWER SEE Q. 3.1-3.3 ON PAGE 5 ANSWER TO 3.1 IS "NO": You told me that you have had no girl/boyfriends. I now want to ask you about any sexual contacts that you may have experienced. ANSWER TO 3.1 IS "YES": You have told me about your relationship with girl /boyfriends, Apart from her/him and any earlier girl /boyfriends, I now want to ask you about other types of sexual partners that you may have experienced.		
4.1 Some young people are forced to have sexual intercourse against their will by a stranger, a relative or an older person. Has this ever happened to you?	Yes 1 No 2 →	4.4
4.2 How many different strangers, relatives or older perons have forced you to have sex against your will?	No. ☐☐	
4.3 Did you or the sexual partner do anything to avoid a pregnancy on these occasions?	Always 1 Sometimes 2 Never 3	
4.4 Some young people/females are touched on the breast or some other part of the body when they do not want to be, by a stranger, a relative or an older person. Has this ever happened to you?	Yes 1 No 2 →	4.6
4.5 Would you say this has happened often, sometimes, or rarely?	Often 1 Sometimes 2 Rarely 3	
4.6 Some young people have casual sex perhaps after a party or after drinking? Has this ever happened to you?	Yes 1 No 2 →	4.8
4.7 How many times casual sex have you had?	No. ☐☐	
4.8 Did you or the sexual partner do anything to avoid a pregnancy on these occasions?	Always 1 Sometimes 2 Never 3	

IF YES Always or sometimes?		
4.9a Some young people pay money or gifts in exchange for sexual intercourse. Has this ever happened to you? 4.9b Some people receive money or gifts in exchange for sexual intercourse. Has this ever happened to you?	Yes 1 No 2 → Yes 1 No 2 →	4.11 4.11
4.10 How many women/men have you had sex with for money or gifts?	No. ☐☐	
4.11 Did you or the sexual partner do anything to avoid a pregancy on these occasions?	Always 1 Sometimes 2 Never 3	

ONLY FOR THOSE WHO HAVE NEVER EXPERIENCED SEXUAL INTERCOURSE

People may have mixed reasons for not having intercourse. I will read out some reasons. Please tell me for each reason whether it applies to you or not.	Yes	No	Don't Know	
4.12I don't feel ready to have sex.	1	2	3	
4.13I have not had the opportunity.	1	2	3	
4.14I think that sex before marriage is wrong	1	2	3	
4.15I am afraid of getting pregnant/someone pregnant	1	2	3	
4.16 I am afraid of getting HIV and AIDS or another sexually transmitted infection.	1	2	3	
4.17 And now I have a question about your future plans about sexual intercourse. Which statement best describes your plans? **READ OUT** (a) I plan to wait until marriage (b) I plan to wait until I am engaged to be married (c) I plan to wait until I find someone I love (d) I plan to have sexual intercourse when an opportunity comes along	Marriage 1 Engagement 2 Love 3 Opportunity 4			
4.18 Do you feel any pressure from others to have sexual intercourse? A great deal or a little?	A great deal 1 A little 2 None 3			
9 From whom do you feel pressure? **PROBE CIRCLE ALL THAT APPLY**	Friends 1 Relatives 2 School Mates 3 Partner/special friend 4 Other …………………………………5			

Section 5: Knowledge and use of contraceptive methods

I now have some questions about contraception - I mean ways in which men and women can avoid getting pregnant. Which methods have you heard of? What others?
CIRCLE CODE 1 IN COL. 2 FOR EACH METHOD MENTIONED.
FOR EACH METHOD IN THE TABLE NOT ALREADY MENTIONED, READ THE DESCRIPTION IN COL.1 AND RECORD ANSWER IN COL.2
FOR EACH METHOD KNOWN ASK QUESTION IN COL.3

COL 1.	**COL. 2.**	**COL. 3.**
5.1 Pill Women can take a pill every day	Knowledge of Method Yes 1 → No 2	Knowledge of Source "Do you know any place or person where young people could obtain this method? Yes 1 No 2
5.2 Injection Women can have an injection every 2 or every 3 months	Yes 1 → No 2	"Do you know any place or person where young people could obtain this method? Yes 1 No 2
5.3 Condom A man can put a rubber device on his penis before intercourse	Yes 1 → No 2	"Do you know any place or person where young people could obtain this method? Yes 1 No 2
5.4 Emergency Contraceptive Pills A woman can take pills soon after intercourse	Yes 1 → No 2	"Do you know any place or person where young people could obtain this method? Yes 1 No 2
5.5 Withdrawal A man can pull out of a woman before climax	Yes 1 No 2	
5.6 Periodic Abstinence/Rhythm A couple can avoid sex on days when pregnancy is most likely to occur.	Yes 1 No 2	

5.7 There are other methods of contraception that I have not mentioned. What other methods have you heard of? CIRCLE EACH METHOD MENTIONED.	IUD Implant Jelly/foam Female Sterilization Male Sterilization Other (SPECIFY)……………….	1 2 3 4 5 6	

5.8 Which method do you think is most suitable for young people? CIRCLE ONE ANSWER	Pill	1	
	Injection	2	
	Condom	3	
	Emerg. Pills	4	
	Withdrawal	5	
	Periodic. Ab.	6	
	D.K.	8	
	Other …………………………		
5.9 Which methods of contraception have you or your sexual partner ever used? PROBE which others? CIRCLE ALL THAT APPLY	Pill	1	
	Injection	2	
	Condom	3	
	Emerg. Pills	4	
	Withdrawal	5	
	Periodic. Ab.	6	
	Other ………………………………...7		

Section 6: Knowledge of HIV and AIDS and other sexually transmitted infections

6.1 Have you heard of HIV or AIDS (*use local terms*)?	Yes	1	→	
	No	2		6.5
I am now going to read some statements about HIV and AIDS to you. Please tell me whether you think the statement is true, or false, or whether you don't know.	True	False	Don't know	
6.2 It is possible to cure AIDS	1	2	3	
6.3 A person with HIV always looks emaciated or unhealthy in some way	1	2	3	
6.4 People can take a simple test to find out whether they have HIV	1	2	3	
6.5 Apart from HIV and AIDS, there are other infections that men and women can catch by having sexual intercourse. Have you heard of any of these infections?	Yes	1		
	No	2	→	**6.15**
6.6 What are the signs/symptoms of a sexually transmitted disease in a man? PROBE CIRCLE EACH MENTIONED	Discharge from penis	1		
	Pain during urination	2		
	Ulcers/sores in genital area	3		
	D.K. any signs	4		
	Other……………………………			
6.7 And what are the signs or symptoms when a woman is infected?	Vaginal discharge	1		
	Pain during urination	2		
	Ulcers/sores in genital area	3		
	D.K. any signs	4		
	Other……………………………5			

6.8 If a friend of yours needed treatment for a sexually transmitted infection, where could he or she obtain such treatment? PROBE Any other places? CIRCLE EACH MENTIONED	Shop 1 Pharmacy 2 Govt. hospital/health centre/clinic Private doctor/nurse/clinic 4 Other (SPECIFY)…………… 5	

6.9 **SEE Q 3.16 ON PAGE 6** Respondent has experienced Sexual intercourse ☐ ↓	Respondent has not experienced Sexual intercourse ☐ →	6.15
6.10 Have you ever had a sexually transmitted infections?	Yes 1 No 2	
6.11 IF YES Once or more than once?	Once 1 More than once 2 Never 3 →	6.15
6.12 (On the last occasion) did you seek treatment?	Yes 1 No 2 →	6.15
6.13 Where did you seek treatment?	Shop 1 Pharmacy 2 Govt. hospital/health centre/clinic Private doctor/nurse/clinic 4 Other ……………………………… 5	
6.14 Did your sexual partner (any of your partners) also obtain treatment?	Yes 1 No 2 Don't know 3	
Now I am going to ask you questions about attitude of young people towards SRHR		
6.15 A person can get HIV the first time he or she has sex	Agree 1 Disagree 2 Don’t know 3	
6.16 By looking carefully, one can know if someone has HIV	Agree 1 Disagree 2 Don’t know 3	
6.17 Early age premarital sex for boys is supported	Agree 1 Disagree 2 Don’t know 3	
6.18 Early age premarital sex for girl is supported	Agree 1 Disagree 2 Don’t know 3	
6.19 Discussing condom or contraceptive with young people promotes promiscuity	Agree 1 Disagree 2 Don’t know 3	
6.20 Young people who seek for SRH information are bad	Agree 1 Disagree 2 Don’t know 3	

6.21 Using condom is a sign of not trusting partner	Agree Disagree Don't know	1 2 3	
6.22 A girlfriend/boyfriend has a right to refuse unprotected sex with his/her girlfriend/boyfriend if he/she does not wants to use condom	Agree Disagree Don't know	1 2 3	
6.23 A person having multiple sex partners has a high risk of acquiring HIV	Agree Disagree Don't know	1 2 3	
6.24 There is no evidence for existence of HIV and AIDS	Agree Disagree Don't know	1 2 3	
6.25 It is against the law and the rights to coerce/force a Young Person to have sex	Agree Disagree Don't know	1 2 3	
6.26 It is against the law and the rights to coerce/force a Young Person to use contraception	Agree Disagree Don't know	1 2 3	
6.27 It is against the law and the rights of a Young Person to be denied of healthcare	Agree Disagree Don't know	1 2 3	
6.28 It is against the law and the rights of a Young Person to be discriminated on the type of healthcare to receive	Agree Disagree Don't know	1 2 3	

Section 7: Sexuality, gender and norms

Young people have various views about relationships. I will read out some views. For each one, please tell me whether you agree, disagree or you don't know?

7.1 I believe it's all right for unmarried boys and girls to have a boyfriend/girlfriend (USE LOCAL TERM)	Agree Disagree Don't know	1 2 3	
7.2 I believe it's all right for boys and girls to kiss, hug and touch each other.	Agree Disagree Don't know	1 2 3	
7.3 I believe there is nothing wrong with unmarried boys and girls having sexual intercourse if they love each other.	Agree Disagree Don't know	1 2 3	
7.4 I think that sometimes a boy has to force a girl to have sex if he loves her.	Agree Disagree Don't know	1 2 3	
7.5 A boy will not respect a girl who agrees to have sex with him.	Agree Disagree Don't know	1 2 3	
7.6 Most girls who have sex before marriage regret it afterwards.	Agree Disagree Don't know	1 2 3	
7.7 Most boys who have sex before marriage regret it afterwards.	Agree Disagree Don't know	1 2 3	
7.8 A boy and a girl should have sex before they get married (USE LOCAL TERM) to see whether they are compatible to each other.	Agree Disagree Don't know	1 2 3	
7.9 I believe that girls should remain virgins until they marry.	Agree Disagree Don't know	1 2 3	
7.10I believe that boys should remain virgins until they marry.	Agree Disagree Don't know	1 2 3	

7.11 It is sometimes justifiable for a boy to hit his girlfriend.	Agree Disagree Don't know	1 2 3	
7.12 Most of my friends think that casual sex is OK.	Agree Disagree Don't know	1 2 3	
7.13 It's all right for boys and girls to have sex with each other provided that they use contraceptives	Agree Disagree Don't know	1 2 3	
7.14 Most of my friends who have sex with someone use condoms regularly.	Agree Disagree Don't know	1 2 3	
7.15 I am confident that I can insist on condom use every time I have sex.	Agree Disagree Don't know	1 2 3	
7.16 I would contemplate having an abortion my self or for my partner when pregnant.	Agree Disagree Don't know	1 2 3	
7.17 It is mainly the woman's responsibility to ensure that contraception is used regularly.	Agree Disagree Don't know	1 2 3	
7.18 I think that you should be in love with someone before having sex with them.	Agree Disagree Don't know	1 2 3	
7.19 I feel that I know how to use a condom properly.	Agree Disagree Don't know	1 2 3	
7.20 Most of my friends would **NEVER** contemplate having an abortion for themselves or their partner.	Agree Disagree Don't know	1 2 3	
7.21 Men need sex more frequently than women.	Agree Disagree Don't know	1 2 3	
7.22 Most of my friends believe that you should be in love before you	Agree Disagree Don't know	1 2 3	

have sex with someone.		
7.23 I would refuse to have sex with someone who is not prepared to use a condom.	Agree 1 Disagree 2 Don't know 3	
7.24 Casual sex is OK.	Agree 1 Disagree 2 Don't know 3	
7.25 How many of your friends have had sexual intercourse? Would you say many, some, a few, or none?	Many 1 Some 2 A few 3 None 4 Not sure 5	

Section 8: Use and challenges in accessing healthcare

8.0 Have you ever visited a health facility or doctor of any kind to receive services	Yes 1 No 2	
8.1 Have you ever visited a health facility or doctor of any kind to receive services or information on contraception, pregnancy, abortion or sexually transmitted infections?	Yes 1 No 2	→ 8.2
8.2 If no why (tick all that apply)	Cost of health service 1 Physical barriers to the facility 2 Discrimination by professionals 3 Distance to service point 4 Lack of medical equipment adapted for my usage 5 Lack of communication access 6 Other specify:.................................7	
8.3 How many times have you sought services or information from a doctor or a nurse for these services in the last 6 months?	Number of times Did not seek care in last 6 months	→ Section 9 ☐☐
8.4 Thinking about your last visit, did you go to a government clinic, health centre or hospital or a private doctor or clinic?	Shop 1 Pharmacy 2 Govt. hospital/health centre/clinic Private doctor/nurse/clinic 4 Other (SPECIFY)…………… 5	

8.5 When you last accesed healthcare what was your reason?	Contraception 1 STI 2 Gynaecological exam 3 Pregnancy test 4 Pregnancy termination 5 MCH 6 Other………………………………… 7 7	
8.6 Did you get well after the treatment?	Yes 1 No 2	
8.7 Were you satisfied with the reception of the person who attended to you?	Yes 1 No 2	
8.8Did you face any discrimination when you accessed health services?	Yes 1 No 2	
8.9 Did you face any challenges in the hospital/health facility?	Yes 1 No 2	
8.10 What challenge(s) did you face when you visited the health facility?	Cost of health service 1 Physical barriers 2 Discrimination by professionals 3 Lack of medical equipment Adapted for my usage 4 Problem of communication 5 Other specify ………… 6	
8.11 Have you ever been discriminated against in a health facility?	Yes 1 No 2	→ 8.14
8.12 On what basis were you discriminated? **(CIRCLE ALL THAT APPLY)**	Religion 1 Sex 2 Age 3 Disability 4 Price 5 Type of health services 6 Location of health services 7 Other ……………………… 8	
8.13 What form of discrimination did you go through?	Use of derogatory words 1 Delay in the process of delivery 2 Frustration at the service settings Required services not available 4	
8.14 Did the service providers allow you to ask question when you do not understand something or when you need further explanation and information concerninng your health care?	Yes 1 No 2	
8.15 Did the service provider have enough time for you to	Yes 1 No 2	

explain things for you to understand?		
8.16 Did you receive the services you expected when you accessed health services?	Yes 1 No 2	
8.17 Were you given any information on contraception during the consultation?	Yes No 1 2	
8.18 Did you attend a talk on contraception during the consultation?	1 2	
8.19 Did you request contraceptive services during the consultation?	1 2	
8.20 Did the doctor or nurse talk to you about: Contraception? Sexually transmitted infections? Pregnancy?	YES NO 1 2 1 2 1 2	
8.21 Did you feel comfortable enough to ask questions?	1 2	
8.22 Were the questions you asked during the consultation answered adequately?	1 2	
8.23 Was there enough confidentiality?	1 2	
8.24 Do you face a barrier in accessing Sexual and Reproductive Health(feeling relunctant to access healthcare even when you face sexual health problems (sick/ill)?	Yes 1 No 2 →	8.26
8.25 If **Yes** why do you feel relunctant to access sexual and reproductive health services?	Cost of health service 1 Physical barriers to the facility 2 Discrimination by professionals 3 Distance to service point 4 Lack of medical equipment adapted for my usage 5 Lack of communication access 6	
8.26 what was your major challenge when you last visited the health facility?	Cost of health service 1 Physical barriers to the facility 2 Discrimination by professionals 3 Distance to service point 4 Lack of medical equipment adapted for my usage 5 Lack of communication access 6 Inaccessible door entrances 7 Inaccessible stair case 8 Absence of elevators 9	

	Absence of ramps 10 Other specify ………………………	
8.27 How will you rate the services you were offered on the scale below the last time you visited a health facility?	1. Very good 1 2. Good 2 3. Very bad 3 4. Bad 4	

Section 9: Sexual and Reproductive Health and Leisure needs

Leisure means **FREE TIME** available to an individual		
Would you say your leisure needs are largely met or unmet?	Largely met 1 Largely unmet 2	
CIRCLE ALL THAT APPLY **9.2 aLeisure activities frequently undertaken** Listening to music 1 Sleeping 2 Chatting with friends 3 Watching television 4 Playing computer games 5 Reading novels 6 Walk 7 Dancing 8 Playing football 9 Playing musical instrument 10 Other specify …………… 11	**9.2b Preferred leisure activities** Listening to music 1 Sleeping 2 Chatting with friends 3 Watching television 4 Playing computer games 5 Reading novels 6 Walk 7 Dancing 8 Playing football 9 Playing musical instrument 10 Other specify …………… ….11	
9.3 What are the major constraints you encounter during leisure? **CIRCLE ALL THAT APPLY** a. **Intrapersonal constraints**	Lack of knowledge on activity 1 Fear of poor academic grades 2 Lack of participation skills 3 Fear of losing of focus 4 Fear of physical injury 5 Health-related problems 6	
b. Interpersonal constraints	Low levels of interest by other students 1 Fear of being rejected by friends2 The activity is looked down upon 3 Other students will make fun of me 4 People will not respect me 5 Society will mock me 6 Tight academic schedule 1	

c. Structural constraints	Cost of participation Cost of kits Inadequate leisure facilities	2 3 4		
9.4 What kind of activities do you undertake with friends?	Chatting Watching television Playing computer games Reading novels Walk Dancing Playing football Playing musical instrument Others specify……………..	1 2 3 4 5 6 7 9 10		
9.5 Do you gather information on SRHR from friends during leisure?	Yes No	1 2 → 9.8		
9.6 Have you gathered information on the following from friends during leisure activities?	Yes	No		
Puberty Sexual and reproductive systems of men and women Relationships Contraceptives Sexually transmitted infections Abortion Other (specify) ………………………………………..	1 2 3 4 5 6 7	1 2 3 4 5 6 7		
9.7 Are you influenced by the information gathered on SRHR from friends during leisure?	Yes No	1 2 → 9.8		
Leisure provides avenues for people to gather information on SRHR needs and also shape their SRHR behaviour. I will read out ways through leisure shapes SRHR needs and behaviour. For each one, I want you to tell me whether you agree, disagree, or don't know	Agree	Disagree	Don't Know	
9.8 Leisure is an effective source	1	2	3	

through which I get vital information on SRHR				
9.9 Information I obtain from friends on SRHR is very credible because they have experience on the subject	1	2	3	
9.10 I prefer to talk to friends on SRHR during leisure because I feel they will keep my secret	1	2	3	
9.11 It is easy to get informed on SRHR by friends during leisure than go to a health professional	1	2	3	
9.12 I am able to learn about contraceptives from friends during leisure activities	1	2	3	
9.13 I am able to learn about how to use contraceptives from friends/relatives during leisure activities	1	2	3	
9.14 I easily get access to contraceptives from friends I have made during leisure activities	1	2	3	
9. 15 I am able to learn about unsafe sex during leisure activities	1	2	3	
9. 16 I feel pressure from friends to have sexual intercourse during leisure activities.	1	2	3	

Thank you!

APPENDIX B

INFORMED CONSENT FORM

My name is …………………………..…………. I am working for a research project on *Sexual and Reproductive Health and Leisure Needs of Young People with Disabilities in Ghana*. A team from the University of Cape Coast is undertaking this research. Would you be interested to hear more about this research with a view to your possible participation in it? (*Interviewer:* if the answer is 'yes' continue but end the interview if the answer is 'no' and thank him/her).

Purpose

The purpose of the study is to assess the Sexual and Reproductive Health and Rights (SRHR) and leisure needs of Young People with Disabilities (YPWDs) in Ghana. We hope that the results of this study will inform the public as well as policy makers and programme managers so that they can formulate appropriate interventions to address SRH and Leisure Needs of YPWDs.

Procedure and right to refuse to answer or withdraw

For this purpose we invite you to be one among other young people for a face-to-face private interview. In the interview you will be asked about your personal experience regarding pregnancy including health complications associated with it that you might have. In addition, we are also interested in obtaining some information about you such as your age, marital status, practice of family planning and several other questions regarding your past pregnancies. The interview will take place in a private room where you will share your experience with me. Some of the questions that we will ask in the interview may concern your personal matters and may cause uncomfortable feelings. However, if you wish, you may decline answering any questions. Your participation in this study is voluntary. You can stop and withdraw from the interview at any point. Please feel free to let me know when you do not want to continue the interview. The interview will take about 40 minutes of your time.

Confidentiality

The information that you share with me will be kept confidential; it will be used strictly for research only. The report will use the collective responses and will not reveal names or any identifiers that may be linked back to the person who gave the information. Nor will any one who is not directly involved in this research be allowed to access the information that we obtain from you. Your response will be recorded on a paper that does not have your name or any information that could be used to trace your identity. This consent form that has your name on it will be kept separate from the questionnaire and will be destroyed in one year. The questionnaires will be kept under lock and key and will not be accessed except by the researchers. Only the principal researcher will have access to these questionnaires. The principal researcher will have the key to the locked cabinet and another will be with his/her assistant. The completed questionnaires will be destroyed five years after the study is completed. These will be destroyed using the paper shredder. Both the questionnaires and the computer files will have no personal identification information. We would like to reassure you that the information you provide will not be provided to anyone outside the research team.

Risk and benefit

There is no health risk to you from your participation in this interview. You may feel uncomfortable with some of the questions but, as I said earlier, you may decline answering any such questions. If you feel that you need to talk to a counsellor then please let me know and I will arrange this. The information you provide us today will be useful for understanding some important aspects of young people with disability in our country. We shall safeguard the confidentiality of information, but cannot guarantee any breach that could happen. However, the questionnaires and files contain no personal identification information and, therefore, your participation and information will remain confidential.

Contact

This project is being carried out by the University of Cape Coast. Should you need to contact this research project at a later date, you may contact Akwasi Kumi-Kyereme (0244255234) of the Department of Population and Health. If the information I give you is unclear or if you have questions about this research and this interview, you may ask me now. Do you want to ask me any questions? (*Interviewer:* Wait to see if the respondent has any question to ask. Answer those questions as clearly as possible. Begin interview only when the respondent has a clear understanding of what she is asked to do and she has given consent for interview.)

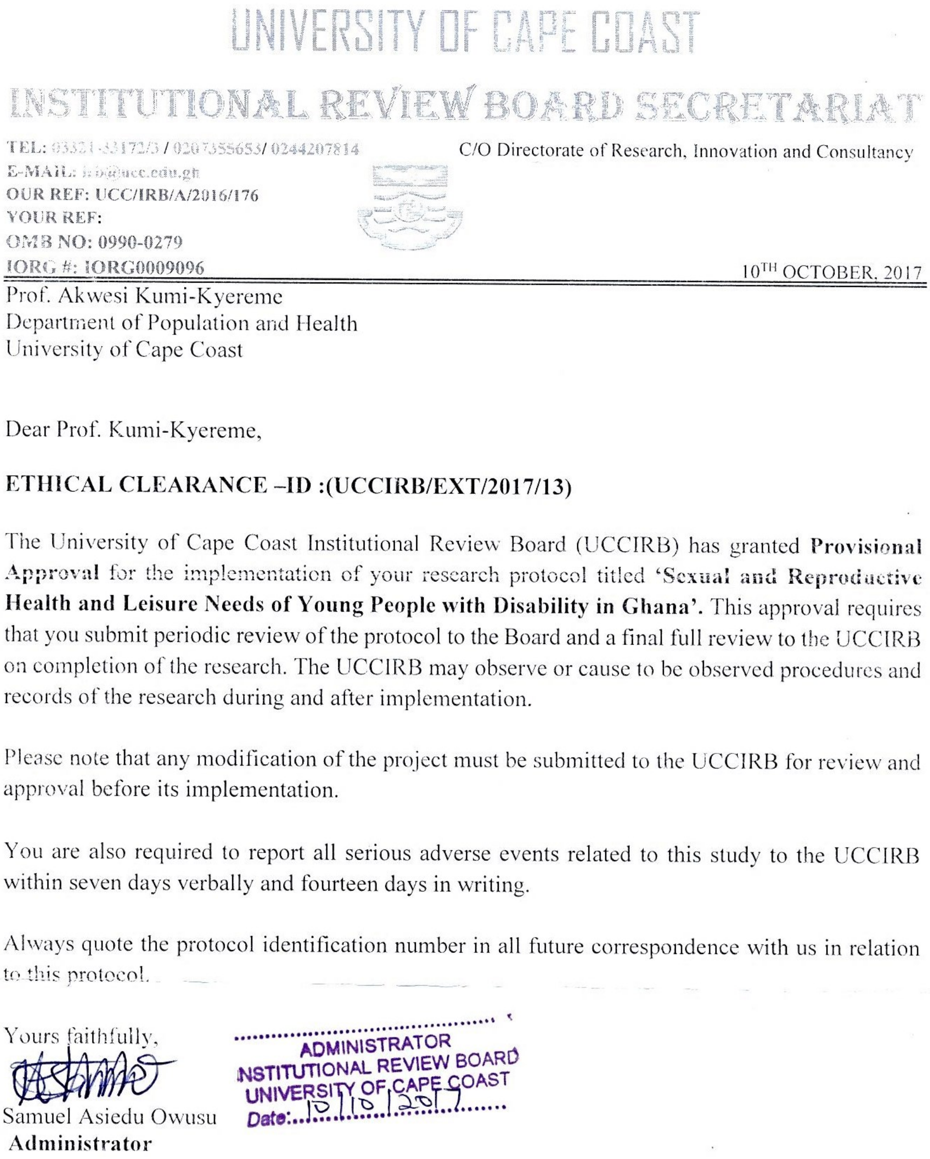
Certificate of Consent

I have been informed about this research, which focuses on *Sexual and Reproductive Health and Leisure Needs of Young People with Disability in Ghana*. I have read the informed consent form or it has been read to me. I have had the opportunity to ask questions about the research and my questions have been explained clearly to my satisfaction. I am aware that I will be asked to provide personal information. It has been guaranteed that the information I provide will remain confidential. I understand that the information provided will not be reported to authorities, including school authorities. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. I consent voluntarily to participate in this study.

Signature or Sign of Consent:
Date:

APPENDIX C

ETHICAL CLEARANCE



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OUR REF: UCC/IRB/A/2016/176
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096

10TH OCTOBER, 2017

Prof. Akwesi Kumi-Kyereme
Department of Population and Health
University of Cape Coast

Dear Prof. Kumi-Kyereme,

ETHICAL CLEARANCE –ID :(UCCIRB/EXT/2017/13)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for the implementation of your research protocol titled **'Sexual and Reproductive Health and Leisure Needs of Young People with Disability in Ghana'.** This approval requires that you submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the UCCIRB for review and approval before its implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu
Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST
Date: 10/10/2017