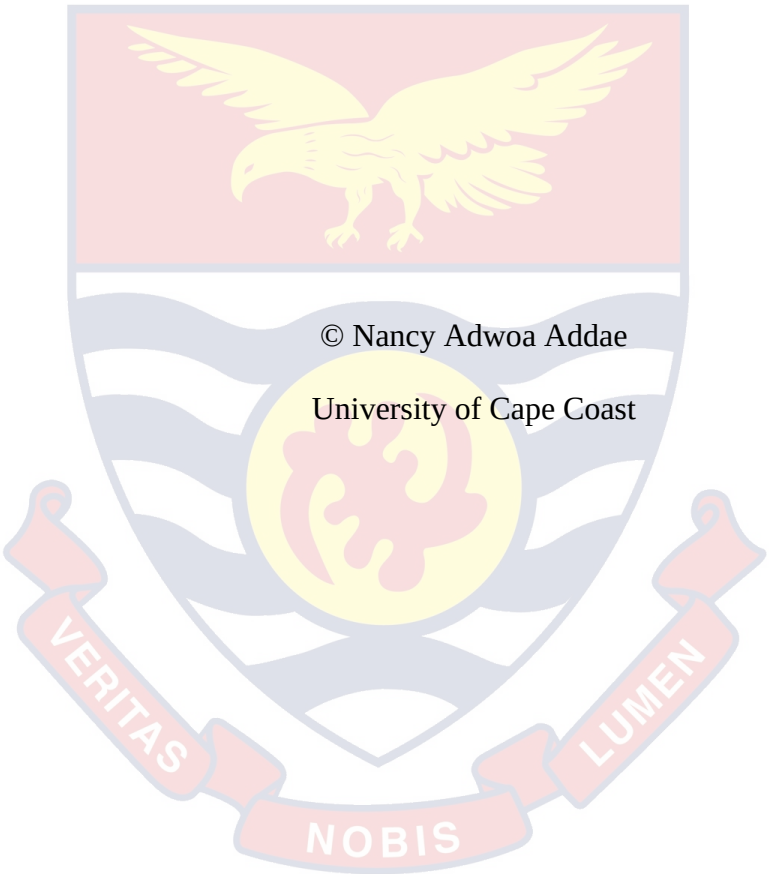
UNIVERSITY OF CAPE COAST

UNDERSTANDING ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH NEEDS IN THE CAPE COAST METROPOLIS

NANCY ADWOA ADDAE

2021



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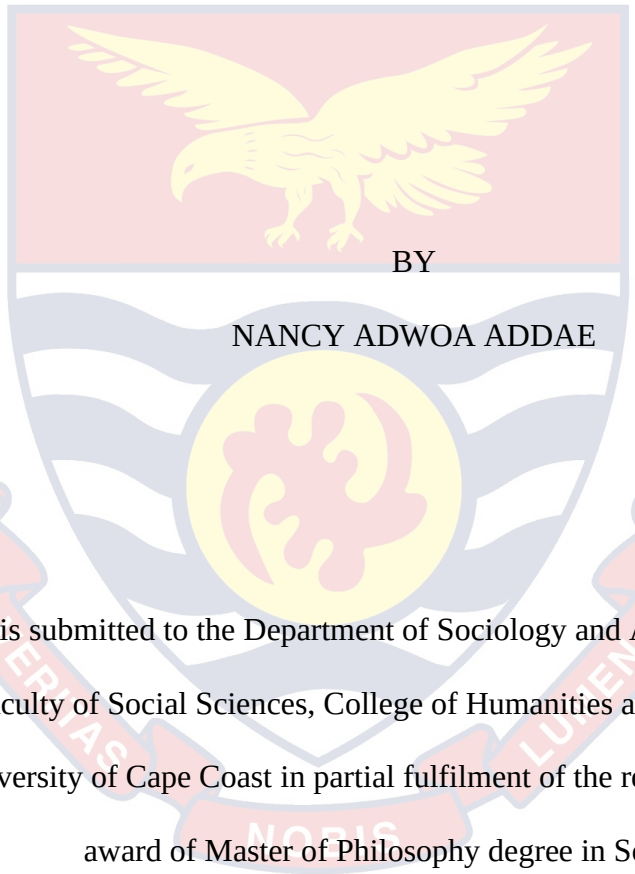

BY

NANCY ADWOA ADDAE

Thesis submitted to the Department of Sociology and Anthropology of the Faculty of Social Sciences, College of Humanities and Legal Studies, University of Cape Coast in partial fulfilment of the requirements for the award of Master of Philosophy degree in Sociology

MARCH 2021

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: Nancy Adwoa Addae

Supervisor's Declaration

I 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.

Supervisor's Signature: …… Date ……

Name: Dr. Eric Koka

ABSTRACT

Although adolescents make up a large proportion of the population in the developing world where most humanitarian emergencies occur, their sexual and reproductive health needs are largely unmet. This study, therefore, sought to explore adolescents' knowledge, perceptions and sexual and reproductive health needs in the Cape Coast Metropolis. Guided by a sequential explanatory mixed design and cross-sectional research design, the Theory of Planned Behaviour, Social Cognitive Theory and the Health Belief Model served as theoretical underpinnings. Convenient sampling procedure was used to sample in-school JHS adolescents (12 and 19) years, parents, community/opinion leaders, healthcare providers, teachers, and SHEP coordinators. Questionnaire, interview and FGD guides were used for data collection. The KOBO Toolbox and thematic analysis were used for both the quantitative and qualitative data respectively. The study showed that adolescents' knowledge on sexual and reproductive health was very minimal. Their dominant sources of SRH information were friends/peers and the media. Living arrangement, age, educational level and religious affiliation influenced opinions of adolescents and parents regarding ASRH and the use of the available RH services. To prevent adolescents from relying so much on their peers and the media for SRH information, the collaboration between GES and the GHS should be intensified with emphasis on comprehensive sexuality and reproductive health education as compulsory subjects for all adolescents. NGOs interested in ASRH should organise community outreaches for parents and guardians on the essence of parent-child sexual and reproductive health discussions, to encourage adolescents to confide in their parents on issues regarding their SRH.

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DEDICATION

To Rev. Stephen Kwarteng and Felix Appiah Ankuma

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LIST OF ACRONYMS

ASRH:	Adolescent Sexual and Reproductive Health
CHPS:	Community Health Planning & Services
GDHS:	Ghana Demographic Health Survey
GES:	Ghana Education Service
GHS:	Ghana Health Service
GSS:	Ghana Statistical Service
HIV:	Human Immunodeficiency Virus
ICPD:	International Conference on Population and Development
JHS:	Junior High School
LMIC:	Low and Middle Income Country
M/A :	Metropolitan Assembly
NGO:	Non-Governmental Organisation
PHC:	Population and Housing Census
PwDs:	Persons with Disability
SHEP:	School Health Education Programme
SRH:	Sexual and Reproductive Health
SHS:	Senior High School
SSA:	sub-Saharan Africa
STIs :	Sexually Transmitted Infections
UNFPA:	United Nations Population Fund
UNICEF:	United Nation Children Fund
UN:	United Nations
WHO:	World Health Organisation

CHAPTER ONE

INTRODUCTION

Background to the Study

Globally, adolescents are developing in an environment of active change. For a number of people, the difficulty offers chance and option, but for others, it is a fight for existence (Patton et al., 2018). Adolescence as postulated by Helamo, Kusheta, Bancha, Habtu and Yohannes (2017) and Levin, Zebrack and Cole (2019), is a transitional stage in which younger generations are mainly susceptible to Sexual and Reproductive Health (SRH) risks. Due to this increasing susceptibility, Adolescents' Sexual and Reproductive Health (ASRH) is progressively among the highest priorities of representatives and politicians worldwide (Bundy et al., 2018). Even though, Nagata, Ferguson and Ross (2016) projected the population of adolescents to be about 1.2 billion worldwide, Behulu, Anteneh, and Aynalem (2019) all argued that about 70% of the 1.2 billion adolescents living in Low and Middle-Income Countries (LMICs) become sexually active even before 20 years.

In the same vein, evidence from Azzopardi et al. (2019) indicated that in these LMICs, age-specific targeted health services are scarce if not virtually non-existent. In addition, in sub-Saharan Africa (SSA), both young and old adolescents are approximately 23% of the 973.4 million population (Gribble & Haffey, 2008; WHO, 2015). Notwithstanding adolescents' population and many combined partnership efforts, Denno, Hoopes and Chandra-Mouli (2015) contended that most SSA countries including Ghana, face substantial difficulties regarding adolescents' sexual and reproductive health service

utilisation. Additionally, with respect to this service utilisation inconsistencies, literature on adolescents' utilisation of Youth-Friendly Reproductive Health Services (YFRHS) proved that extensive waiting hours at health centres and financial instability, adversely affected adolescents' use of such services (Bhaudin, 2018).

Statistically, Ghana's population is estimated to be 30.42 million, ranking 46th in the world (Bremner et al., 2010). Further, Ferreira et al. (2015) estimated that the proportion of adolescents to the entire population is 1:4.5, constituting approximately 21.9% of the country's population. However, reports from the Ghana Statistical Service (GSS) and the 2010; Population and Housing Census (PHC) indicated that in Ghana, adolescents aged 10-14 years represent a total number of 2,916,040 while those aged 15-19 years sum up to be 2,609,989. As a result, although the population of adolescents may not be extremely enormous, it still represents a significant aspect of the country's population that needs consideration. Moreover, evidence from Akther, Begum, Chowdhury and Sultana (2012) suggested that adolescents experience very critical and life defining events, including first sexual intercourse, first marriage and parenthood.

Additionally, the downward trend in age at menarche from 15.5 years to an average age of 12-13 years in most developing countries also signifies an increase in the interval between menarche and marriage (Aryeetey, Kotoh & Hindin, 2010); with this interval increment, it mostly creates the assumption that the young female adolescent is matured to be married, thereby, contributing to many of the child marriages in the country. While the Children's Act 1998 (Act 560) section 14 (2), puts the minimum age for marriage at 18 years, the

Criminal Offenses Act, 1960 (Act 29) pegs the age of sexual consent at 16 years old. This signifies that while a 16-year-old adolescent is too young to marry, s/he is not too young to have sexual intercourse.

Evidence from Awusabo-Asare, Abane and Kumi-Kyereme (2004) posits that four in 10 Ghanaian women and two in 10 men aged 15-19 have ever had sex. By age 20, 83% of women and 56% of men have had sex; as such, the median age at first intercourse is 17.4 for women and 19.5 for men. Again, among those who have had sex, four in 10 women and six in 10 men aged 12-24 have had more than one sexual partner. Additionally, according to Agyemang (2018), the current average age of first sexual intercourse remains 18.4 years in urban areas and 17.9 years in rural areas. Again, about 29% of adolescent girls compared to 15% boys engage in premarital sex as a result of biological (puberty timing), social (peer norms or parental monitoring), environmental (media), individual attitudes and beliefs (gender roles) (Boamah-Kaali et al., 2016).

Consequently, the Ghana National Population and Housing Council (GNPHC), in 2009, reported the age of first marriage to be 18.3 years for females and about 25 years for males in 1988. Currently, this age has increased to about 21.4 years for females living in urban areas and 20.9 years for their counterparts in rural areas. With regard to the males, it has increased to 26.1 years for urban dwellers and 24.9 years for rural people (Douglas, 2018). In general, Ghana, like most African communities remain a comparatively traditional country, where discussions of sexual matters, abortion and contraceptive use are still extensively forbidden for adolescents (Asampong, Osafo, Bingenheimer & Ahiadeke, 2013; Bastien, Kajula & Muhwezi, 2011).

Similarly, Tomkins et al. (2015) explained that sex is revered, and is frequently a subject for couples. In addition, the regulatory silence that frowns on premarital sex and the predominant socio-cultural setting influence delivery of adolescents' reproductive health information and services.

On the contrary, studies by Averiyire (2015) and Santelli et al. (2017) revealed that religious bodies are often against reproductive health care, but rather in support of celibacy just for the young and unmarried individuals. Consequently, governmental efforts to bring education on sexuality in institutions have been repelled by religious groups, since 1990 (Karst, 1990). Furthermore, reproductive health complications get worse by the early initiation of sexual, political, social and cultural inconsistencies, coupled with inadequate accessibility and utilisation of health facilities (Jones & Jones, 2019). Although, the government of Ghana has over the years put in place a comprehensive adolescent reproductive health strategy, however, many organisations stress abstinence till marriage (Escribano-Ferrer, Cluzeau, Cutler, Akufo & Chalkidou, 2016; GHS, 2015); albeit the requests from a projected 22 to 27% of adolescents, who desire to use reproductive health services but are unable to do so because of inaccessibility, cost of services, and among others (Ghana Statistical Service, 2010).

Further, studies by Okonta, Ubaka and Arukwe (2013) also made known that out of the considerable number (70%) of adolescents who were sexually active in the study, just a handful had ever tested for HIV/AIDS, and used condom in their last sexual intercourse, due to inaccessibility and uncomfortable nature of the facilities. On the other hand, similar studies among in-school adolescents also revealed that a significant number of the study populace, rather

saw nothing immoral about pre-marital sex as it was ordinary, just pleasant, or it does not mean a thing to them (Omobuwa, Asekun-Olarinmoye & Olajide, 2012). Evidence from Kyilleh, Tabong and Konlaan (2018), explained further those adolescents are, however, unknowledgeable, unskilled and uncomfortable using reproductive health facilities than that of adults. Also, they frequently lack simple awareness on reproductive health and accessibility to inexpensive and confidential health services because to them, it is mostly uncomfortable discussing matters related to their reproductive health with their parents (Ford, English, Dowshen & Rogers, 2016).

In effect, adolescents elsewhere and in Ghana frequently lack a place to turn to for objective counselling and contraceptives. This is because adolescent-friendly clinics in charge of these services are restricted in number and are mainly found outside the cities (Staveteig, 2017). Meanwhile, as postulated by Van der Geugten, van Meijel, den Uyl and de Vries (2015), it is imperative to build a supportive atmosphere capable of confidently influencing adolescent's knowledge, perceptions, skills, attitude and behaviour towards using reproductive health services. There is, therefore, the need for adolescents to be empowered in diverse ways to assert their rights and personally protect their reproductive health from risks.

Statement of the Problem

Adolescence as described by Driessnack (2006), is the psycho-social, emotional, cognitive, and moral transition from childhood to young adulthood. This period is characterised by heightened physical growth and rapid changes in height, weight, body shape and genital development leading to many life experimentations. In view of these changes, studies have proven that

adolescents' inadequate knowledge about their reproductive health issues predispose them to unwanted pregnancies, unsafe abortions and their complications including STIs/STDs (Amoah, 2017; Appiah, 2016; Vondee, 2018). Therefore, Nyarko, Adentwi, Asumeng and Ahulu (2014), attributed this deficiency to the contentious nature with regard to teaching sexuality in schools and the content of the sexuality education.

Likewise, any other developing country, adolescents in Ghana are, sometimes deprived of reproductive health services for not being married or below 18 years, and the need for parental consent in order for such services to be offered (Hall et al., 2018). This often puts health care providers in a dilemma as to whether to make such services available to adolescents or not (Aninanya et al., 2015). Consequently, adolescents, often do not know where to get the necessary reproductive health services from, thereby, generally relying on themselves and additional unreliable sources for support, and information for care and services (Aninanya et al., 2015). Evidence from Asiedu (2016), suggested that adolescents' sources of information may influence their opinions regarding their sexual and reproductive health problems.

Adolescents have sexual and reproductive health rights just like adults, however, their low social rank, poverty, lack of autonomy and physical susceptibility creates severe challenges towards using such rights (Germain, Sen, Garcia-Moreno & Shankar, 2015; Starrs et al., 2018). While a claim could be made about similar studies conducted in Ghana on adolescents' sexual and reproductive health, (Amankwaa, Abass & Gyasi, 2018; Appiah, 2016; Asante & Kugbey, 2019; Asiedu, 2016; Aviriyire, 2015; Hagan & Buxton, 2012; Yendaw et al., 2015 etc.), these studies, however, failed to have in-depth

interrogation on in-school junior high school adolescents' level of knowledge and their emic perspectives, regarding sexual and reproductive health, to enable them cater for their sexual and reproductive health needs. Again, although a peri-urban Metropolis such as Cape Coast, houses several second cycle institutions and many other prominent junior high schools, yet, studies on in-school JHS adolescents' sexual and reproductive health still remain quite inadequate.

It is important that adolescents have existing reliable information to make informed decisions regarding their sexual and reproductive health. But what are the gaps in their knowledge regarding sexual and reproductive health? The key aim of this study was to explore adolescents' overall awareness on sexual and reproductive health issues such as early adolescents' sexual practices, teenage pregnancy, STIs/STDs and other forms of adolescents' abuses. Additionally, it was relevant to understand how young people cope with adolescence as a developmental stage, taking into consideration, the biological, social and cultural determinants of their health. Moreover, factors influencing adolescents' sources of sexual and reproductive health information, and understanding adolescents' sexual and reproductive health needs from their own perspective were duly examined in the Cape Coast Metropolis. This sealed the gaps in earlier studies and enhance current studies towards improving strategies to address problems related to reproductive health among adolescents.

Purpose of the Study

The purpose of this study is to investigate adolescents' sexual and reproductive health needs in the study area.

Research Objectives

The study was based on the following research objectives:

1. Examine how demographic variables impact adolescents' sexual and reproductive health.
2. Ascertain adolescents' knowledge of sexual and reproductive health.
3. Explore adolescents' perceptions of sexual and reproductive health.

Research Questions

The study was based on the following research questions:

1. How do demographic variables impact adolescents' sexual and reproductive health?
2. How do adolescents understand sexual and reproductive health?
3. How do adolescents perceive sexual and reproductive health?
4. What are the sexual and reproductive health needs of adolescents?

Significance of the Study

The study has extensively produced empirical data on available adolescent sexual and reproductive health services and in this manner, contributing to the existing studies on adolescents' health and sexuality in the Cape Coast Metropolis and beyond. The research also goes beyond the range of current studies on adolescents' sexual and reproductive health in Ghana, by providing an increased awareness of the phenomena from the perspective of adolescents, parents and community leaders, teachers, SHEP Coordinators and health care providers (at both the community and Metropolitan level). As such, the study provides adequate information for policy makers (government), NGOs interested in adolescents' sexual and reproductive health, Ghana

Education Service and Ghana Health Service, to improve on the existing adolescents' health development policy in Ghana.

It is believed that when this is done, it will adequately educate adolescents, parents/guardians, and community/ opinion leaders on adolescents' sexual and reproductive health while health care providers, teachers and SHEP Coordinators will be trained on the appropriate delivery and provision of adolescents' sexual and reproductive health services in the Cape Coast Metropolis and Ghana as a whole. In addition, the study contributed to public health, knowledge on Health Belief Model, Theory of Planned Behaviour, as well as Social Learning Theory.

Delimitations of the Study

The study was delimited towards understanding adolescents' sexual and reproductive health needs, specifically, in-school junior high school adolescents within 12-19 years (both males and females) in Efutu-Koforidua, Ekon, and Abura and Kwaprow communities in the Cape Coast Metropolis. Precisely, this research explored perceptions of adolescents, parents/guardians, community leaders, teachers, SHEP Coordinators and health care providers on adolescents' sexual and reproductive health needs. These research findings could not be deduced beyond the study area. Even if it is possible to apply most of adolescents' sexual and reproductive health concerns across the country, care must be taken in drawing such conclusions out of this research into any additional circumstances within or outside Ghana.

Limitations of the Study

As with every research, there are guarantees of limitations which need to be acknowledged. It is important to acknowledge the relatively small sample size used for the study. Consequently, the challenges of the Corona virus (COVID-19) pandemic, made the collection of data excessively stressful. Some of the prospective participants of the four selected communities in the Cape Coast Metropolis were reluctant to participate due to the fear of the spread of the COVID-19 pandemic. Notwithstanding, the different tight schedules of the final year students, in preparation for their final year examination (BECE) and the COVID-19 pandemic, made it very difficult in reaching out to participants as well as gaining permission for their involvement in the study. This required consistent visits to the selected schools within the selected communities in order to gather data for the study.

Finally, due to the employment of KoBo Toolbox, an android application developed for data collection for the research, difficulty in accessing large number of students with the given limited time was a huge impediment to the study. Moreover, issues such as phone batteries running low were encountered on the field. To be able to cater for contingencies, the researcher, at some point in time had to print out the questionnaires as a backup for such occurrences and out of a total of 50 copies given, the researcher received only 35 copies.

Definition of Terms

The following definition of terms regarding adolescents' sexual and reproductive health is subjected to the definitions by the WHO, UNICEF and UNAIDS:

Adolescence: This is commonly defined by age (10 to 19 years old), and as a life stage characterised by important developmental changes which includes the way people look, think, feel and socialise.

Adolescent: An adolescent is referred to as young person transitioning from childhood to adulthood.

Child: A child is an individual below 18 years.

Teenager: A teenager is a young person between 13 and 19 years.

Young people: Young people are referred to as individuals between 10 and 24 years.

Younger adolescents: They are individuals between the ages of 10 to 14 years old.

Older adolescents: They are individuals between 15 to 19 years old.

Early adolescence: They are referred to as individuals between 10 and 14 years.

Late adolescence: They are referred to as individuals between 15 and 19 years.

Special needs adolescents: These are young people between 10 and 19 years who have disabilities, married with or without children.

In-school adolescents: They are young people between 12 and 19 years who are currently in school, either basic, secondary, technical or vocational.

Out-of-school adolescents: They refer to young people between 12 and 19 years who are not in any formal educational institution.

Organisation of the Study

The thesis was organised in five chapters. Chapter One offers an overview to the study. It therefore discusses the background to the study, statement of the problem, research objectives and questions, significance of the study, delimitations and limitations of the study as well as definition of terms.

Chapter Two focuses on a review of relevant literature. This comprises conceptual, theoretical and empirical reviews. Chapter Three makes available a detailed account of the methodology in conducting the study. It deliberates on the research design, study area, population, sample and sampling procedure, data collection instruments and procedures as well as data processing and analysis and the chapter summary. The fourth chapter capture the results and discussion based on data gathered from interviews, FGDs and surveys in Efutu-Koforidua, Ekon, Abura, and Kwaprow communities in the Cape Coast Metropolis. Chapter Five concentrates on the summary, conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter presents the various literature relevant to the study. Broad themes covered under this chapter are theoretical review, conceptual framework and empirical review. Reviewed literature includes the health belief model, theory of planned behaviour and social learning theory. Other areas reviewed are: demographic variables and its influence on adolescents' sexual and reproductive health, knowledge on sexual and reproductive health, sources of adolescents' sexual and reproductive health information, and perceptions of sexual and reproductive health, sexual and reproductive health needs in addition to availability, accessibility and utilisation of sexual and reproductive health services.

Theoretical Framework

Reid, Walker and Cornell (2004) emphasised that when studies were conducted on individuals at the early stages of the HIV/AIDS pandemic, their sexual behaviours were the primary focus. The assumptions were that peoples' behaviour would change once they became aware of HIV and the mode of transmission. Several information campaigns on sexual and reproductive health issues, most importantly, HIV/AIDS are centred on behaviourist and behavioural theories. Groenewold, Bruijn and Bilsborrow (2006), argued further that health theories importantly focus on psycho-social factors such as knowledge, attitudes, beliefs, intentions and personality traits that influence behaviours. In health research, it is recognised that these factors could influence

the behaviours of individuals and, therefore, are crucial in health promotion practices. Social cognitive models are used within the social sciences to recognise and explain phenomena in the social sciences. Moreover, cognitive models emphasise that behaviour is a function of the subjective value of an outcome and the subjective probability or expectation that a particular action will achieve that outcome (Klepp et al., 2000). However, these theories generally do not consider the interaction of social, cultural and environmental issues as independent of individual factors.

King (1999) found that although each theory is built on different assumptions, they all state that behavioural changes occur by altering potential risk-producing situations and social relationships, risk perceptions, attitudes, self-efficacy beliefs, intentions and outcome expectations. In the same manner, Quinn (2000) clarified that 'cognitive' stand for the internal mental processes of human beings, and encompasses the domains of memory, perception and thinking. Perception emphasises an organised process in which the individual select cues from the environment and draws inferences from these in order to make sense of his experiences. The Health Belief Model, Theory of Planned Behaviour, and the Social Cognitive/Social Learning Theory as part of such theories were used in this study to understand adolescents' sexual and reproductive health needs among in-school JHS adolescents in the Cape Coast Metropolis.

The choice of these theories (humanistic) was based on these prominent underlying assumptions:

Epistemology: These theories comprise multiple truths because they apply to different situations and individuals in various ways. The knowledge gained is

interpretive in nature, therefore, since the study employed a mixed method approach, it best fits the qualitative aspect of exploring the perceptions of adolescents regarding their sexual and reproductive health needs.

Ontology: These theories rely heavily on free will because each individual determines the actions involved, hence, depicting the activeness of the theories used in the study.

Axiology: These theories are value-laden because beliefs and values play a huge role in the ideology of these models.

Although the theories are qualitatively inclined, they were used as the theoretical framework for the current study as it employed both quantitative and qualitative methods of analysis. Thomas (1995) further added that the theories were also developed from the logical positivist paradigm of science because they stand out among the social-psychological models of health-related behaviours. Furthermore, they are basically value expectancy models developed to explain an individual's health actions under conditions of uncertainty.

The Health Belief Model (HBM)

The Health Belief Model was originally developed to predict health-related behaviour in terms of certain belief patterns (Dennill, King, Lock & Swanepoel (1999 as cited by Chitambo, Smith & Ehlers, 2002). The model is used in explaining and predicting preventive health behaviour, as well as sick-role and illness behaviour. When used appropriately, it provides organised assessment data about individual's abilities and motivation to change their health status. Currently, HBM is the most frequently used theory in health education, health promotion and disease prevention. Although HBM has been modified in various ways over time, the original model has four psycho-social

elements namely, perceived susceptibility; perceived severity; perceived benefit and perceived barrier.

HBM states that the perception of a personal health behaviour threat is itself influenced by, at least, three factors such as general health values, which include interest and concern about health; specific health beliefs about vulnerability to a particular health threat; and beliefs about the consequences of the health problem. Once an individual perceives a threat to his/her health and is simultaneously cued to action, and his/her perceived benefits outweighs his/her perceived barriers, then that individual is most likely to undertake the recommended preventive health action. There may be some variables (demographic, socio-psychological, and structural) that can influence an individual's decision.

Assumptions of the Health Belief Model

The Health Belief Model assumes that an individual will take a health-related action if s/he feels that a negative health condition can be avoided. It is, therefore, necessary to help individuals realise that they have the potential to avoid a condition, and this can only happen when one has true knowledge of the problem. It is only when the individual realises this that s/he would be able to take a preventative action. Again, HBM assumes that an individual will take preventative action if s/he has a positive expectation that by taking a recommended action, the negative health condition will be avoided. The individual needs to see the benefits that s/he will gain from performing the behaviour. If s/he fails to see any benefit, it would be difficult for him/her to take the necessary action, or even to maintain it. Students or adolescents in the current study must perceive the benefits of condoms, before they can initiate

and maintain its use in order to prevent teenage pregnancy, STIs, including HIV and AIDS.

Further, HBM also assumes that an individual adopts a health-related action if the s/he believes that one can successfully take the recommended action. It requires the individual to feel confident that s/he has the capacity to take the recommended action and this would require that s/he has the necessary knowledge and skills in a supportive environment to carry out the required action(s).

Components of the Health Belief Model

The Health Belief Model has three major components: The individual's perception about health; the modifying factors; including demographic, socio-psychological and structural variables; and the benefits of taking preventive measures.

Individual perception: Individual's perception refers to a person's beliefs about one's own susceptibility to a disease in addition to the seriousness with which one sees the perceived threat of the disease. In this analysis, individual perception involves adolescents' (students') beliefs about their susceptibility to sexual and reproductive health issues such as teenage pregnancy, abortion, STDs/STIs and the perceived severity of such sexual and reproductive health issues. Consequently, a person changes perception due to newly acquired knowledge which to a large extent, brings about a minimal risk of disease.

Modifying factors*:* Modifying factors, for instance, demographic, socio-psychological and structural variables may affect an individual's perceptions, and thus indirectly influence his/her health-related behaviours. Socio-

demographic factors such as; educational status could affect a person's perception of susceptibility to and severity of suffering from diseases of unprotected sexual intercourse such as STIs/STDs, in addition to a person's perceived benefits to be expected from using contraceptives and condoms efficiently and barriers to such accessibility. Additional modifying factors include socio-psychological and structural variables that could change a person's decision to use contraceptives (birth controls) during sexual intercourse to prevent STDs/STIs and unwanted pregnancies.

Variables affecting the likelihood of initiating and maintaining action: In the current study, these variables refer to an adolescent/student's perceived benefits of practising safe sex (using contraceptives and condoms effectively) excluding the perceived barriers to taking action (accessibility, affordability and acceptability of contraceptives/condoms). These sum up to the likelihood of taking actions to change behaviours.

Concepts of the Health Belief Model

The Health Belief Model remains much of a value expectancy theory with two values. First, the desire to avoid illness or to get well. Secondly, the belief that specific health actions available to an individual would prevent undesirable consequences. In this research, the desire would be to prevent sexual and reproductive health issues such as, (pregnancy or STIs/STDs). Moreover, the specific available health action would be effective and consistent use of condoms or contraceptives (barrier control methods) during and after sexual intercourse, abstinence or practising safe sex whereas the undesirable consequences would be unwanted pregnancy, STIs/STDs (HIV/AIDS). The Health Belief Model is based on the following concepts: perceived

susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy. The concept of self-efficacy, the most recent addition to HBM was directly transferred from the work of Bandura (Groenewold, de Bruijn & Bilsborrow, 2006), while cues to action were added to estimate events or experiences that fuel a person's direct need to take action.

Perceived susceptibility*:* Perceived susceptibility describes a person's beliefs concerning the chances of contracting a health condition or disorder. An individual's perception that a health problem is personally relevant will contribute to taking the required action to prevent the health problem. For this to be possible, there must be activities that increase the individual's perception of his/her vulnerability to the health condition. There is the greatest likelihood for individuals who perceive to be at risk of unwanted pregnancy and STIs/STDs to abstain, use birth controls and other preventive measures towards the health condition or disorder.

Perceived severity: Perceived severity to an individual's beliefs of how serious a condition and its consequences are (Tarkang & Zotor, 2015). Once a person identifies his/her susceptibility to a certain health condition, it does not necessarily motivate him/her to take the necessary preventive actions unless the individual realises that acquiring the health condition would have serious physical and social implications. It is necessary for adolescents, for instance; to realise that sexual and reproductive health issues such as teenage pregnancy, abortions and STDs/STIs among others, are severe health conditions with negative health consequences on their physical and social lives, before s/he would adopt preventative actions (such as abstinence, consistent condom or contraceptive use) against these negative health conditions.

Perceived benefits: Perceived benefits means to a person's beliefs in the efficacy of the recommended action to reduce the risk or seriousness of impact. It is necessary for an individual to be confident about taking a certain action as this enables him/her to avoid or prevent a problem from occurring. It is this belief that gives the individual confidence to take the action because of the expected outcomes. HBM further suggests that adolescents' belief about the effectiveness of, for instance, barrier control methods in preventing unwanted pregnancy and STIs/STDs, should correlate positively with their consistent use. Moreover, partner's willingness and parental support to use barrier control methods are significant psycho-social factors in consistent practice of safe sexual intercourse.

Perceived barriers: These describe a person's belief in the tangible and psychological costs of the advised behaviours. There could be several barriers that affect individual's decision to take particular actions. Perceived barriers to health actions include phobic reactions, physical and psychological barriers, accessibility factors, personal characteristics, possible blocks or hindrances to engage in preventive behaviours, including factors such as cost, inconveniences and unpleasantness. Likewise, perceived barriers also include costs, duration, complexity of the deserved behaviours and accessibility to services that would support adopting and maintaining the required actions. Subsequently, individuals would be able to adopt the necessary actions when they realise that they have the capacity to cope with these barriers.

Cues to action: HBMs cues to action include events or experiences, personal (physical symptoms of a health condition), inter-personal or environmental (media publicity) factors that influence an individual to take

action. Cues to action involves the situation whereby a person desires to adopt the necessary actions after believing that s/he has the capacity to do so. The required action will benefit an individual by knowing how to deal with the expected barriers. It requires motivation on the individual's part to have the desire to comply with the prescribed action or treatment, to have concerns about health matters, to be willing to seek and accept health care and to engage in positive health activities.

Self-efficacy: This is the strength of a person's belief in his/her individual ability to respond to new or difficult situations, and to cope with any associated obstacles or setbacks. Self-efficacy is a person's ability to effectively undertake an action. The individual must be confident about his/her capabilities to undertake the necessary action appropriately since s/he will be able to initiate and maintain an action based on his/her self-confidence. With respect to this study, self-efficacy is the self-confidence in one's ability to either abstain from sexual activities or use birth control methods to prevent pregnancy and STIs/STDs.

Application of the Health Belief Model

The Health Belief Model has been applied to a wide range of health behaviours and populations, including health education topics such as sexuality education. Since HBM is centred on encouraging individuals to take action, for instance, abstinence or safe sex, it is applicable to sexuality education programmes that focus on primary prevention, for instance, programmes that aim to prevent pregnancy, STIs/STDs and HIV/AIDS by advocating safe sex (condom use). Similarly, secondary prevention should also include programmes that aim to increase early detection of STIs/STDs or HIV/AIDS to reduce their

spread through unprotected intercourse and to ensure the early treatment of the conditions. However, one of the difficulties of HBM is that different questions are used in different studies to determine same beliefs, consequently it is difficult to design appropriate tests of HBM and compare results across studies.

Another reason why research does not always support HBM is that factors other than health beliefs, likewise heavily influence health behaviour practices. These factors may include special influences, cultural factors, socio-economic status and previous experiences. The Health Belief Model is limited to individual health-risk behaviours and as such could not serve as a guide to understand the environmental, social, cultural and personal factors that influence health conditions in this study.

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour is an extension of the theory of reasoned action (Ajzen & Fishbein, 1980) made necessary by the original model's limitations in dealing with behaviour which people have incomplete volitional control. A central factor of the theory is the individual intention to act a given behaviour. Intentions are considered as motivational factors that influence a behaviour; they are indications of how people are willing to try, of how much of an effort they are planning to exert in order to perform the behaviour. The theory proposes three determinants of intention: the attitude toward the behaviour, subjective norm and perceived behavioural control (Ajzen, 1991).

Concepts of Theory of Planned Behaviour

Attitude/personal attitude: This explains a person's positive or negative beliefs in relation to a specific behaviour. It is the extent to which a person has

a favourable or unfavourable outcome evaluation of the specific behaviour. In this regard, adolescents' assessment of the dangers of engaging in risky sexual behaviours will duly inform them of the need to practise abstinence or safe sex, as a means of preventing unwanted pregnancy and contracting STIs/STDs, including HIV and AIDS.

Subjective norm: This refers to the influence of social pressure that is perceived by an individual to either perform or not to perform a particular behaviour/action. The social pressures come from parents, teachers and guardians, among others who are referred to as significant others or groups from the individual's environment. Subjective norms are a function of an individual's beliefs regarding what each referent think an individual should do and the motivation to comply with these referents' demands. In this case study, for an adolescent to practice safe sex, there should be the belief that one's partner, friends and family would support the person and his/her intentions.

Perceived ability/perceived behaviour control: It is the perception about the ease or difficulty in exhibiting a specific behaviour. It reflects past experiences and foreseen obstacles. The more positive the attitude and subjective norm regarding the behaviour, and the greater the perceived behavioural control, the stronger a person's intention of exhibiting the behaviour will be (Ajzen, 1991). Accordingly, the individual must have the belief that s/he has the skills and capability to change behaviour. For this reason, an adolescent in this study believes s/he is able to access and use contraceptives effectively to prevent unplanned pregnancy and STIs/STDs. The theory of planned behaviour may, therefore, be regarded as a useful conceptual

framework for dealing with the complexities of human social behaviour like adolescents' risky sexual behaviours that are difficult to understand.

Application of Theory Planned Behaviour to the study

Concepts are defined in a way that allows for forecast and consideration of behaviours in stated circumstances. Attitudes and subjective norms towards the behaviour, and perceived control with respect to the behaviour help to foresee behaviour intentions with a great mark of correctness. Behaviour is also determined by an individual's perceived behavioural control, defined as an individual's perceptions of their ability or feelings of self-efficacy to perform a particular behaviour. This is typically dependent on the type of relationship and the nature of the situation. In this regard, these intentions together with perceived behavioural control can best explain significant percentage of unpredictability in behaviour (Ajzen, 1991). Godin and Kok (1996), asserted that intention has been shown to be the most important variable in predicting behaviour change, suggesting that behaviours are often linked with one's personal motivation. Subsequently, this suggests that it may be important to present information to help shape positive attitudes towards the behaviour and stress subjective norms or opinions that support the behaviour.

For perceived behavioural control to influence behaviour change, much like with self-efficacy, a person must perceive that s/he has the ability to perform the behaviour. Therefore, as Grizzell (2007) suggested, perceived control over opportunities, resources and skills needed is an important part of the change process. The Theory of Planned Behaviour can, therefore, be used to change adolescent behaviours that are heavily influenced by peers and close social network at the inter-personal level. To be able to achieve this, the close social

network needs to be targeted to support the desired behaviour change in the individual, as well as highlighting the short-term benefits of the behaviour change to promote action. However, the Theory of Planned Behaviour rather focuses too much on the individual's intention or motivation to perform an action or behaviour and not on the subjective norms that binds individual behaviour in a community. Subjective norms or external factors can affect or influence behaviours in numerous ways, therefore, stressing the cultural/societal norms, beliefs and practices can promote community acceptance of a particular behaviour or action.

Social Cognitive Theory or Social Learning Theory (SCT)

Bandura's (1971) Social Cognitive or Social Learning Theory proposes that people are driven not by inner forces, but by external factors. Thus, the theory focuses on knowledge obtained from the social environment. Bandura believed that human learning involves cognitive thinking and that the behaviour of others and the consequences of those behaviours could be learnt purely by observing the behaviour of others without any actual interaction required between the person doing the action and the person observing it. The theory, thus explains how individuals study one another, by means of models, including observational learning, imitation, and modelling. Accordingly, the change in actions might not always be a consequence of knowledge gained.

This model suggests that human functioning can be explained by a triadic interaction of behaviour, personal and environmental factors (see figure 1*)*. This is often known as reciprocal determinism. Environmental factors represent situational influences and environment in which behaviour is performed while personal factors include instincts, drives, traits and other

individual motivational forces. Several constructs underlie the process of human learning and behaviour change (Bandura, 1971).

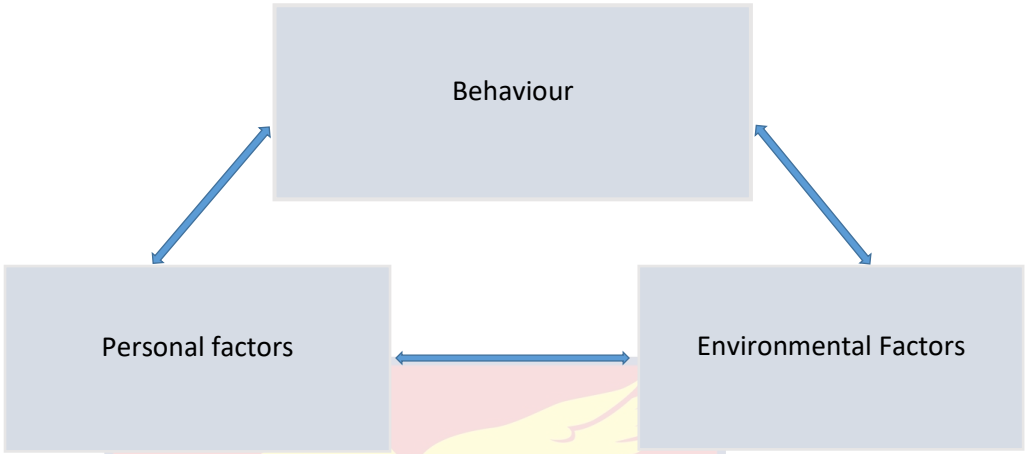

Figure 1: Social Cognitive Theory Model
Source: Adopted from Albert Bandura's (1971) model

Relevance of Social Cognitive Theory to the study

The Social Cognitive Theory has been used in the field of education (teaching and learning) and psychology in a considerable number of studies. Men such as Gordon Allport, Neal E. Miller and John Dollard, have contributed enormously to the field of Social Psychology. Aiken and Groth-Marnat (2006) and Fast and Preston (2006), both employed the Social Cognitive Theory in psychology. An important distinction that set Bandura's concepts apart from other behaviourists was his belief that no 'consequences' were as important an influencer to social learning, as 'consequences' were. His research found that not receiving a consequence could influence social learning as dramatically as a reward. Also, it was found that observing the punishment of another was an important influencer to the reduction of a behaviour. Children were, of course, the most susceptible to the influences of observational learning and he had also proven that this process begins at a very young age.

The modelling process (also known as the Observational Learning Theory) that allows this learning to occur takes place through the following steps:

Attention: This step explains that for an individual to learn a modelled behaviour, s/he must focus on that behaviour. For instance, for an adolescent girl to avoid getting pregnant, she must focus on sexual and reproductive health education, abstain from sex or practice safe sex.

Retention: In this case, in order to be influenced by a behaviour, one must be able to commit it to memory and recall it later. Markedly, the female adolescent now has enough knowledge on the various contraceptives available and their application through sexual and reproduction health education obtained through the various adequate sources.

Reproduction: Here, the observed action must then be reproduced through imitation. In this case, adolescents may observe their friends/peers using condoms or contraceptives, and consequently decide to adopt the behaviour as well.

Motivation: Boeree (2006) further explained that the individual must feel some level of reinforcement as an incentive to repeat the behaviour. Reinforcement can be positive, subsequently, increasing a modelled behaviour or it can be negative, leading to its reduction. It can also be internal or external. For example; external reinforcement may be that when an adolescent girl's community becomes more supportive and vocal about access to contraceptives for adolescent girls at her age, she gains the confidence to talk to her mother about getting contraceptives. Internal reinforcement would be, particularly, the inner feeling the adolescent experiences when s/he receives that 'praise' and

after learning about how to use condoms and contraceptives, the adolescent feels confident that s/he can maintain the usage and keep on track to achieving his/her dreams (McLeod, 2011).

Besides, Bandura believed that behaviours could be controlled or eliminated by a process known as self-regulation. Self-regulation is a system of personal behaviour management. First, it involves self-observation which entails observing one's own behaviour and keeping a mental record of it. Second, it involves judgement. Which refers to comparing the records kept with a standard set of rules. Lastly, it involves self-response, which however occurs after the initial behaviour is compared to the standard of rules set. The individual then measures up the behaviour, and depending on the outcome, the individual would then either administer a punishment or a reward to himself/herself.

The Social Cognitive Theory could be convenient in determining adolescents' knowledge of reproductive health since many young people acquire a lot from their age mates by observing, imitating and modelling. In view of the complexities of adolescents' behaviour regarding their reproductive health issues, three impartial theories have been used so that a better understanding of the behaviour of adolescents could be found. The demerits and the inability of the of the Health Belief Model and the Theory of Planned Behaviour to effectively serve as a guide to understand the environmental, social, cultural and personal factors that affect health conditions and behavioural change, motivated the researcher to adopt the Social Learning Theory.

The Social Learning Theory effectively catered for all the three levels necessary for behaviour change in adolescents. The theory can also be used for behaviours that are heavily influenced by both the physical and the social

environment in which the individual lives. The Social Learning Theory, therefore, explains the importance of creating an enabling, in which the desired behaviour change is made easier. It however explains that seeing the behaviour in practice can help others adopt, and this can be done through modelling, where the desired behaviour, as well as the resulting benefits can be demonstrated and popularised by role models. Modelling, can come from real or fictional characters depicted through different media channels, for example. The Social Learning Theory contributes to the Health Belief Model, in different ways, including multiple sources for acquiring expectations, learning through imitating others and self-efficacy. This also guided the researcher in the design of the questionnaire and interview guides for the study.

Conceptual Review of the Study

Definition of adolescence

Çelik (2019) opined that there is no common definition of adolescence. However, expressions, including "youth, adolescents, young people and teenagers" are substitutable in defining the concept. Although there exist various definitions of adolescence, this study's definition was limited to chronological age, legal classifications and historic interpretations. Adolescence, as explained by Scott, Bonnie and Steinberg (2016), is therefore, an active concept and no specific classification and meaning may be applicable world-wide, based on the numerous categorisations and indicators given.

Chronological age definition of adolescence

WHO and UNFPA describe adolescents to be individuals from 10 and 19 years, and categorise young adults from 15 and 24 years as youths (Berman

et al., 2009). Young people are a mixture of these two overlapping sets covering 10 to 24 years' age range (Morris & Rushwan, 2015). UNICEF, however, refers individuals up to the 18 years as children. Similarly, Malti and Rubin (2018), defined adolescence in evolving terminologies, as an era of transition from childhood to adulthood, occurring within 10 to 19 years. Additionally, adolescence is also characterised in line with age-sets consisting of: early adolescence (11 and 14) years, middle adolescence (15 and 17) years and late adolescence (18 and 21) years. Other categorisations as presented by Sawyer, Azzopardi, Wickremarathne and Patton (2018), also targeted younger adolescents to be between (10 and 14) years while older adolescents represented those between (15 and 19) years.

Furthermore, Curtis (2015) described the health goals of adolescents at each stage to be significantly different. Blakemore (2018) perceived that a young adolescent, might concentrate on postponing the commencement of normative adult actions. However, at a later stage, future goals might emphasise reducing possible undesirable consequences of such actions. In the same way, Foulkes and Blakemore (2016), established that pubescent and post-pubescent age groups exhibit common characteristics. Perhaps, it is suitable to collectively group teenagers and individuals in their early 20's for methodological purposes. Subsequently, the current research utilised the WHOs categorisation of adolescents. This considered those between 12 and 19 years (hence, the beginning of day one of the 12th year, to the last day of the 19th year). This inclusion criterion was considered because in Ghana, JHS education typically begins at 12 years.

Legal classification of adolescence and the mature minors

Legal and ethical issues arise regarding the concept of adolescence. According to Coleman and Rosoff (2013), issues pertaining to parental or guardian permission is frequently brought up concerning the provision of reproductive health services for adolescents. In the same vein, because the legal age of consent is 18 years, adolescents below this age are considered as juveniles/minors, hence not within the legitimate/legal age for consenting to certain issues (Chenneville, 2017). Consequently, such young people will not be able to consent to the provision of reproductive health services, and can neither merely obtain them without the consent of parents or guardians. Additionally, state laws in several countries do not recognise the legitimate rights of juveniles/minors in providing informed consent for general health services (Belitz, 2018).

Nevertheless, 'uncontrolled juveniles/minors', likewise recognised as 'mature juveniles/minors' even though below the legal age of maturity/adulthood, may give approval to the provision of reproductive health services (Iriane, Sajaratulnisah & Farah, 2019). Essentially, Ford, English, Dowshen and Rogers (2016), contended that these mature juveniles/minors are labelled as adolescents below 21 years, who exhibit the cognitive development to appreciate the risks and benefits of recommended medical and alternative treatments, and can choose willingly to continue by the doctor's recommended treatments or not. As a result, in such a situation, there exists no chronological age of consent for health care, however, a condition of approval, implying the ability to understand every detail of the risks and benefits of treatment. Similarly, like adults, mature juveniles/minors equally appreciate privacy and

the right to health care (Livesey & Rostain, 2017). Further, Benjamin, Ishimine, Joseph and Mehta (2018), explained that minors, proficiently independent may give or reject approval for treatment which parents or guardians may have consented to.

A historical view of the origin of adolescence

There exist opposing opinions with regards to the origin of adolescence as a stage in a life course. Adolescence, as contended by cultural historians, was founded throughout the early decades of the 20th century (Arnett, 2006). Contrarily, interpretations from sociology also advocate that adolescence was acknowledged and established in an era during which numerous western societies started changing from primarily agrarian to predominantly industrial economies (Elder Jr., Caspi & Burton, 2013). Additionally, as argued by Johnson (2002), education expansion and the emergence of a high paying labour market, accompanied by the loss of employment opportunities for the youth, contributed to the creation of a more distinct phase between childhood and adulthood.

Arnett and Hughes (2014), likewise commented that prior to the 20th century, adolescence remained an obscure, ambiguous and ill-defined period, including children and teenagers or even young adults, who remained semi-dependent into adulthood. Similarly, Arnett and Cravens (2006) were of the view that the period of adolescence was universally noted once Stanley Hall, popularised the term and attracted professional and public attention to this aspect of the lifecycle. As a result, adolescence is seen as a phase wherein changes and experiences taking place are biologically, socially and culturally regulated (Lee, 2019). Nonetheless, due to the cumbersome nature with regards

to the definition of adolescence, the study adopted definitions by Sawyer and Patton (2011); in which adolescence was defined as the developmental stage (10-19 years) between childhood and adulthood. This time of life, according to Hormenu, Hagan Jnr and Schack (2018) represents a great share of the foundation for future health and behavioural patterns (i.e., physiological, psychologically and behaviourally). The desire during this period for most adolescents is the quest to fulfil basic physiological and psychological needs, including social acknowledgment or endorsements and other risks taking experiences such as alcohol consumption, other drugs and sexual satisfactions (Awabil, Turkson, Bisi, Badu & Bukari, 2009).

Sexual and reproductive health

UNFPA opines, those issues regarding reproductive health, begins from childhood and continues throughout the life cycle (WHO, 2015). On the other hand, the needs of men and women vary in every stage of life. Women, however, endure an utmost burden of reproductive health problems (Avuvika et al., 2017). In addition, the WHOs report again emphasised that sexual and reproductive health goes beyond merely the reproductive organs and reproduction. The importance of appreciating reproductive health within the context of relationships between men and women, communities and the society is emphasised. To Bolin and Whelehan (2009), reproductive and sexual health status of individuals are affected by multiple factors ranging from sexual behaviour and attitudes, societal factors, biological and genetic predisposition, economic, cultural and psycho-social determinants.

According to UN, reproductive health involves the state of complete well-being of an individual in its entirety, whether physical, emotional or

psychological. It does include matters affecting the overall well-being of a person (as cited in Averiyire, 2015). It implies that people are able to have a responsible, satisfying and safe sexual life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. According to WHO, health is a complete state of physical, mental and social well-being, and not merely the absence of disease or infirmity (WHO, 1948 as cited by Jakab, 2011). It is the changing trend in a physical and mental potential well-being of an individual which satisfies the demands of life corresponding to his or her age, way of life and personal responsibility.

Health is about the individual welfare, devoid of disease or infirmity; it also has to do with individual's human rights (Saracci, 1997 as cited by Awofeso, 2012). Sexual health could as well be associated with mental health, acute and chronic diseases and violence (Nguyen et al., 2017). Although sexual health is a central element of reproductive health, it extends further than merely reproductive health (WHO, 2015), and it includes problems of STIs/STDs, HIV/AIDS, unplanned pregnancy and abortion, as well as infertility and cancer resulting from STIs and sexual dysfunction (WHO, 2015, as cited by UNFPA, 2017). Reproductive health upholds certain human rights. WHO recognises that successful promotion of sexual health requires a comprehensive programme of activities, encompassing the health and education sectors, as well as the broader political, economic and legal domains (WHO, 2015).

Action is required in every area to eliminate obstacles to sexual health and to promote factors that support it. Additionally, WHO recommends that addressing sexual health at the individual, family, community or health system levels entail integrated interventions by trained health providers and a

functioning referral system (Lottes, 2013). Adolescents' sexual and reproductive health entails abstinence, condom use, contraceptives, decision to keep pregnancy, use of safe comprehensive abortion services, as well as adolescent health rights. Similarly, it also requires a legal, policy and regulatory environment where the sexual rights of every individual are upheld.

Global public health perspective of adolescent's sexual and reproductive health

As the sexual encounters of teenagers have increased in several countries over the last two decades, and increasingly in young children, sexual and reproductive health of adolescents is indeed a worldwide general health concern (Adan & Githae, 2018). WHO argues that research on adolescence is vital, not merely for the enormous percentage of the population that this group symbolises. It is for the reason that within the duration of just a small number of years throughout an individual's life span, a regular adolescent makes quite a few key life transformations, initiation of sexual relationship and parenthood, leaving school and venturing into the workforce, among others. The paths pursued by adolescents towards their transformation into maturity are, thus critical to the prospects of their health.

According to Arnett (1992), adolescence is defined as an era of increase risk-taking, since youths are susceptible to behavioural diseases and illnesses throughout adolescence. Hagan and Buxton (2012), found that condom use continues to be uncommon among married young people and moderate among single sexually-active young people. Also, most adolescents involve themselves in premature and unintended sexual activities, and these expose them to the dangers of unplanned pregnancies, in addition to spreading sexual disorders

(Hall et al., 2018). The outcomes have social, financial and health consequences such as illegal abortion, school drop-out, premarital and unplanned childbirths, in addition to being infected with STIs (Afriyie & Essilfie, 2019).

Furthermore, while African adolescents are mostly expected to be enrolled in any educational institution than previously, and consequently having greater chances of postponing early marriage and childbirth, they are rather exposed to the risk of being infected with HIV than other adolescents worldwide (Aninanya et al., 2015). Notwithstanding, Sub-Saharan Africa continues to be the most highly HIV/AIDS affected region and adolescents, mostly young females, are the most susceptible (WHO, 2019). Accordingly, the region records approximately, 12% global population and approximately two-thirds of HIV infected persons. In Africa, females are found to be the mainstream of individuals living with HIV as opposed to other countries worldwide.

Consequently, Rokicki, Cohen, Salomon and Fink (2017), explained that there are massive consequences of sexual and reproductive health risks, predominantly with regard to female adolescents. This, however, influences the conduct of adolescents' sexual practices and dominant interactions. Illegal abortion is among the most significant sexual health concerns in Sub-Saharan Africa. Statistics from Biney (2011) indicated that 1 out of every 4 of the 4.2 million risky pregnancy terminations that happen every year is performed on female adolescents. In addition, among every teenage pregnancy, 22% end in unplanned childbirth, and 13% result in abortion even though governmental and non-governmental organisations have effectively developed strategies to cater for adolescents' needs, specifically, sexual and reproductive health information and services (Van der Geugten et al., 2015).

However, Rokicki et al. (2017) argued that the headway to decreasing adolescents' sexual and reproductive health risks (such as the prevention of unplanned pregnancy and spread of HIV) have declined, for that reason, the determinations did not impact major influence on the livelihoods of underprivileged people. This is because, adolescents and their relatives living in extreme hardships are exposed to several direct and conflicting desires and might consequently disregard the importance of the determinations to safeguard their sexual and reproductive health (Staveteig, 2017).

Socio-ecological approach to understanding adolescents' sexual and reproductive health

Socio-ecological approach to behaviour change recognises that an individual's behaviour is influenced by many factors, both at the individual level and beyond (Ma, Chan & Loke, 2017). This approach recognises that behaviour change can be achieved through activities that target four levels: Individual, interpersonal (family/peer), community and social/structural. Firstly, at the individual level, younger adolescents need information and skills related to puberty and human reproduction; what it means to start sexual activity; choosing whether and when to engage in sex; the risks of unprotected sex; knowing where to get information; knowing how to access facilities offering contraception and counselling; and negotiating the use of, or using the contraceptive one chooses (Hagan & Buxton, 2012).

With respect to the Health Belief Model, per this study, the individual or adolescent is educated on the steps towards a healthy reproductive life. Again, the theory of planned behaviour may be applied to the family/peer level (likewise known as interpersonal) as it involves young people's interaction with

friends/peers, siblings and family members to whom they can turn to for accurate information and advice. It is, thus seen to be a critical stage demanding extreme cautious attention, because, Baku, Agbemafle and Adanu (2017) suggested that most adolescents turn to their friends/peers for advice when parents refuse to discuss their sexual and reproductive health issues with them. Furthermore, in the community, younger adolescents need services that are available and accessible for information about human development, how to avoid pregnancy and STIs, and the reassurance that there will be no negative consequences from the community for accessing services, using contraception or choosing whether and when to have sex (Helamo et al., 2017).

At the social/structural level, younger adolescents need supportive norms around gender and relationships that allow for a young woman to access and use contraception if she chooses to become sexually-active, policies that support affordable contraception for every individual and availability of youth-friendly services (Averiyire, 2015). Therefore, dealing with the youth in isolation is not helpful, and that tackling, at least, some of these areas and influential people in young people's lives may be necessary to sustain changes in behaviour. This is a clear indication that young people have reproductive health needs which require deep knowledge on reproductive health issues. As such, dwelling on the Social Learning Theory will adequately inform the necessary steps to take to ensure community acceptance of adolescents' youth friendly sexual and reproductive health (AYFSRH) services. From every indication, it is apparent that youths' reproductive health issues are in existence, and it calls for a greater understanding of reproductive health concerns.

The Conceptual Framework of the Study

The conceptual framework explains how an individual is surrounded by social facts. These facts can be material or non-material, abstract or physical, tangible or intangible. With respect to the above (see Figure 2), there are issues that surround the individual or adolescent that might influence his/her decision to abstain from sexual activities or practise safe sex (condom or contraceptive use). These issues have been categorised into seven sections, which include determinants of behaviour, current behaviour, perceived barriers and benefits of desired behaviours, family and social networks, psychographics, media use, and demographics. For instance, an individual's current behaviour may be influenced by his/her tangible or intangible; material or non-material and abstract or physical social facts.

Also, an individual or adolescent's close social networks, demographics, psychographics, physical environment and media use may as well 'determine' his/her attitude towards a healthy sexual and reproductive health life. The individual is exposed to a lot of sources of information (media use; family and social networks) as well as the social stress from the physical environment towards adapting to a perceived recommended behaviour. Nonetheless, his/her perceived barriers and benefits of desired behaviours would be weighed before adapting to any kind of behaviour which may be different from his/her current behaviour. In sum, an individual or adolescent's sexual and reproductive health life is not exclusive of his/her social facts. Figure 2

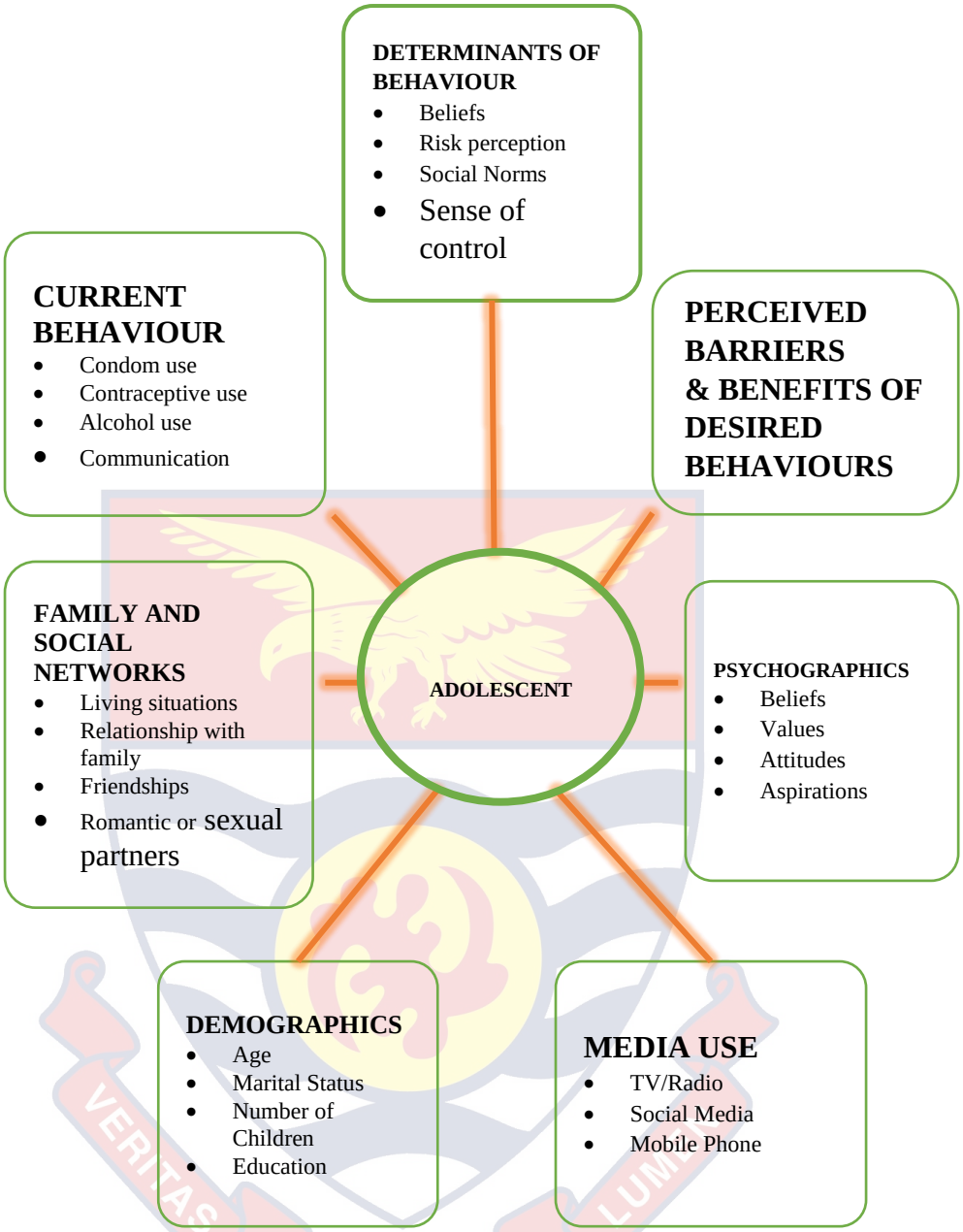

Figure 2: Conceptual Framework

Source: Adapted from USAID Urban ASRH SBCC Implementation Kit, 2015

Empirical Review

Many studies on adolescents' sexual and reproductive health focused on the factors influencing adolescents' knowledge, attitudes, perceptions, access and utilisation of preventive reproductive health services, using different variables. Averiyire (2015), highlighted that some of the influences of young

peoples' reproductive health include the individual, family, peer, school and community. For that reason, it is necessary to consider such aspects in order to understand adolescents' sexual and reproductive health needs to be able to maintain behavioural modifications.

Demographic characteristics impacting adolescents' sexual and reproductive health

Studies on demographic factors revealed that genetic elements such as age and sex were established to be associated with knowledge and perception of sexual and reproductive health and rights, in addition to the number of intimate spouses (Ayelaw, Mengistie, Mengistie & Semahegn, 2014). Other social factors such as educational level, culture/ethnic group, religious affiliation and residing with both parents, also indicated access to knowledge on sexuality, support, supervision and behavioural control on adolescent lives, hence, reducing early sexual activities (Averiyire, 2015).

Adolescents' knowledge on sexual and reproductive health

Globally, studies indicated that adolescents have knowledge on contraceptives and their usage (Adu-Gyamfi, 2014; Averiyire, 2015; Awusabo-Asare et al., 2008; Hagan & Buxton, 2012; Hindin & Fatusi, 2009; Ivanova, Rai & Kemigisha, 2018; Yendaw et al., 2015 etc.). However, their knowledge does not correspond with their effective use of contraceptives in their sexual activities, due to misinformation and misuse; superficial knowledge; socio-cultural factors and gender roles; as well as the fear of being negatively labelled by community members and the providers of such facilities (Averiyire, 2015; Helamo et al., 2017; Yendaw et al., 2015 etc.).

Adolescents' sources of sexual and reproductive health information

Literature has shown that there are enormous reading supplies offering adolescents with the needed information on STDs/STIs. Consequently, the various sources of information on reproductive health in communities according to Action Aid (2012), are the radio, peers, NGOs, performances/plays, in addition to the television. In addition, Averiyire (2015); Hagan and Buxton (2012); Helamo et al. (2017); Rokicki et al. (2017); Van der Geugten et al. (2015) contended that the most important sources of adolescents' sexual and reproductive health information are peers, parents, educational institutions and the mass media.

However, parent-child communication on reproductive health concerns is largely problematic in several countries (Asampong, Osafo, Bingenheimer & Ahiadeke, 2013; Averiyire, 2015; Bastien, Kajula & Muhwezi, 2011). In relation to this parent-child communication deficiency, Baku et al. (2017); Hagan and Buxton (2012) and Yendaw et al. (2015) all maintained in their studies that young adolescents frequently depend on similarly ignorant age mates, mature siblings, radio, television and other media for information.

Adolescents' perception of sexual and reproductive health

It emerged from the results of Yendaw et al.'s (2015) study on knowledge and perception of adolescents on sexual and reproductive health rights in Ghana that over 80% of the study participants have heard and known some aspects of sexual and reproductive health rights. However, the view that men should be the sole decision makers on sexual issues was held by some adolescents in the same study. The above revelations find credence in what Wouhabe (2007) also observed in his study on the sexual behaviour, knowledge

and awareness of related reproductive health issues among single youth in Ethiopia, where individual level factors (age, sex, religion, relationship status) of adolescents influenced their perceptions on sexual and reproductive health rights issues.

Other works by Biney (2011) and Action Aid (2012) established that unprotected sexual activities (from STDs and pregnancy) (non-use of birth controls) and pulling out (withdrawal) methods happen regularly since most adolescents claim condom use cuts down sexual pleasure. On the other hand, to Baku et al. (2017), due to open societal condemnation of premarital sexual activities and the overall absence of privacy at maternal and child health clinics, as well as pharmaceutical shops, many adolescents feel that buying contraceptives will make them subjects of ridicule and gossip. Similarly, societal perceptions of adolescents using contraceptives as bad boys and girls were reported in Hagan and Buxton's (2012) study, as some of the barriers to contraceptive use.

Additionally, some adolescents are of the view that contraceptives existed mainly for just the mature and married individuals. Additionally, the procedures for contraceptive acquisition were frequently uncomfortable as posited by Clare, Squire, Alvarez, Meisler and Fraser (2016). Moreover, Shahabuddin et al. (2016) clarified in their study that adolescents may delay or decide not to be on contraceptives for several reasons. These include the fear of parents finding out, uncertainty, the dangerous negative perceptions of birth control methods and being perceived by sexual partners as "unclean" and assumed to be involved in extra sexual affairs.

Chapter Summary

Studies on adolescents' sexual and reproductive health indicated that demographic factors such as age, educational level, religious affiliation, living arrangement, among others, influenced adolescents' knowledge, perceptions and the utilisation of adolescents' sexual and reproductive health services. Again, adolescents have adequate knowledge on the available contraceptives and condoms and its usage but their knowledge does not correspond to their effective use of them. This could be attributed to the adverse misinformation and misconception retrieved by most adolescents from their peers, elder siblings, the media, and among others, regarding their sexual and reproductive health needs. Further, adolescents' perceptions regarding some aspects of sexual and reproductive health needs predispose them to a lot of sexual and reproductive health issues such unwanted and unplanned teenage pregnancies, illegal abortions and their complications.

In the same vein, findings from in-school adolescents' utilisation of adolescents' youth friendly reproductive health divulged, those adolescents who have never had sexual intercourse were less likely to utilise reproductive health services as compared to those who had had one before. It was also found that one of the most reported reasons why students missed the opportunity to utilise the available sexual and reproductive health services was the inconvenience of the service delivery time.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methodology of the study. It provides an overview of the research philosophy, research approach, research design, study area, data sources, target population, sample and sampling techniques, research instruments, data processing and analysis, and ethical issues and research challenges.

Research Philosophy

The study was guided by the assumptions of ontology and epistemology. With regards to ontological approach, naïve realism was deemed appropriate because it offered the researcher the opportunity to understand reality through using appropriate methods. Considering the epistemological approach, it showed how the researcher was objective and at the same time subjective in creating knowledge. Ontology and epistemology are intimately linked with one other because to Moon and Blackman (2014), epistemology validates ontological assumptions. Again, the ontological and epistemological assumptions influenced the choice of the theoretical perspective, thus, the philosophical orientation of the researcher guided the research.

Philosophical perspectives are shaped by the discipline of the researcher, their beliefs, and past experiences (Creswell, 2009). This further informs the purpose, design, research methodology, as well as the data analysis and interpretation (Slife & Williams, 1995 as cited by Moon & Blackman, 2014). Consequently, the research philosophy underpinning this study is pragmatism,

which is a combination of both positivism and interpretivism. Pragmatism was chosen because it is used to clarify concepts and hypotheses of inquiry by bearing in mind their practical considerations (Moon & Blackman, 2014). According to Creswell and Creswell (2018), instead of focusing on methods, researchers emphasise on the research problem and question and use all approaches available to understand the problem. In effect, this philosophy was adopted to provide a better understanding of the research topic and ensure that the weaknesses of one or the other philosophy can be catered for by the other.

Research Approach

This study adopted the mixed method research approach to attain the set objectives because the philosophical underpinning of this study, thus pragmatism, as argued by Brierley (2017), has often been identified as the appropriate paradigm for conducting mixed methods researches. The mixed methods research approach employed, (specifically triangulation) included; methodological, analysis and data triangulation. This involved collection and analysis of both quantitative and qualitative data through several sampling strategies and data sources, and integrating the two sets of results at some point in the research to draw inferences from the data collected.

Moreover, Brierley (2017) again explained that one of the proposed advantages of mixed methods research is its ability to overcome the disadvantages that are inherent with mono-method researches. Therefore, the study approach provided a better understanding of the research topic and as well offered more detailed answers to the research questions. As such, integrating the results of these two methods offered the possibility of providing a complete picture of the research topic that would address a range of research questions,

thereby providing a complete knowledge that would enhance theory development and practice.

Research Design

Deducing from the research philosophy and approach, it was convenient to use a sequential explanatory mixed-method design and cross-sectional study design for this study. These research designs were adopted due to their roles in data types, data collection methods, data collection period, data analysis and interpretation (Levin, 2006). The sequential explanatory mixed-method study design focused on data type, data analysis and interpretation, whereas the cross-sectional study design focused on the duration of time for data collection. Again, Levin (2006), clarified data are obtained from study subjects or respondents in cross-sectional studies over a particular period or a comparatively short duration of time. With respect to this study, data was collected from participants in August, 2020.

The aim of the cross-sectional research design was to help enrich the sample by studying a relatively huge number of participants in a brief span of time as well as to promote the use of diverse strategies for gathering information from particular participants in particular research (Levin, 2006). A sequential explanatory mixed-method design is a form of mixed-method analysis consisting of the gathering of quantitative data first, followed by qualitative information as well (Creswell, 2012). The rationale for this approach is to use qualitative data to describe or expand on quantitative outcomes. The quantitative instruments (questionnaire) were designed to gather quantitative data and this was done to identify gaps that could emerge from the quantitative

information gathered. Subsequently, upon realising the gaps, instruments (FGDs, interview guides) were designed and qualitative data were collected.

The various data were integrated, and consequently interpreted from the results gathered from the already integrated data. This study design guided the researcher from data collection, merging, analysis and interpretation of data. A mixed-method approach has been adopted in several studies. For instance, Gyapong et al. (2003), maintained that an in-depth assessment used both quantitative and qualitative methods of data collection to assess the trends of the use of intra-uterine contraceptive devices in Ghana. Studies on in-school adolescents' sexual and reproductive health which employed a mixed method approach includes, but not limited to: Adu-Gyamfi (2014); Averiyire (2015) and Ivanova et al. (2018). Further, Driscoll et al. (2007) recommended that mixed-method study designs should be used by investigators striving after correlations, mostly between quantitative and qualitative results.

Study Area

The study took place within Efutu-Koforidua, Ekon, Kwaprow and Abura in the Cape Coast Metropolis, in the Central Region of Ghana.

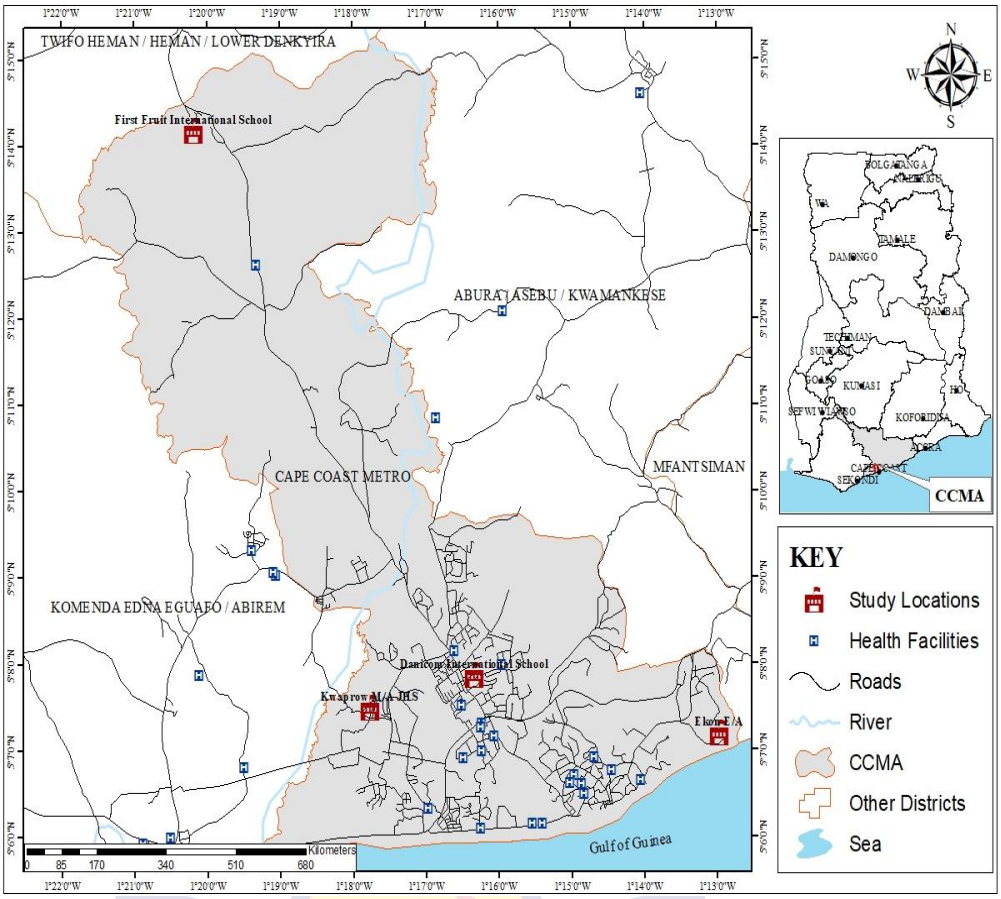

Figure 3: Map of the Cape Coast Metropolis showing the study area
Source: Remote Sensing and Cartographic Unit; Department of Geography and Regional Planning; UCC (2020)

The Metropolis' populace as per the 2010 Population and Housing Census is 169,894. This consists of a male population of 82,810 representing 48.7% and a female population of 87,084 representing 51.3%. However, of the total population, 48,240 are between the ages of 0 and14 years; 113,995 represent those between 15 and 64 years and 7,699 are those above 65 years. Out of the entire population stated, 39,546 persons live in rural areas while 130,348 live in urban areas. Statistically, a total of 38,128 adolescents reside in the Cape Coast Metropolis (GSS, 2010), signifying a larger portion of population dominated by more energetic and youthful people. These young people could be found in school and out-of-school.

The Cape Coast Metropolis was chosen for the study because, amidst all other necessary evidence on adolescents' sexual and reproductive health issues that seems to be missing, it is known as one of the major districts in Ghana that houses several educational institutions corresponding to the three-tier educational system within the country. These are; Basic Education Schools (or First Cycle Institutions) including Kindergarten, Primary and Junior High Schools (JHS); Second Cycle Institutions (Secondary, Commercial, Technical, and Vocation); Tertiary Institutions (Universities, Colleges of Education and Specialist Colleges or Diploma Awarding Institutions).

With respect to the above diagram (see Figure 3), the Metropolis has Twifo Heman/Heman/Lower Denkyira (North), where First Fruit International School is located. Abura/Asebu/Kwamankese and Mfantsiman is located at the East. Komenda/Edina/Eguafo/Abirem is also located on the West while Danicom International School, Kwaprow M/A, and Ekon M/A are all to the South of the study map. The Ghana Statistical Service (GSS) in 2011 reported that 9 out of 10 individuals in the Cape Coast Metropolis between 11 years and above were well-educated and knowledgeable as compared to a regional average of 78.2% and a national average of 74.1%. The 2010 PHC report also indicated that literacy is virtually common among the youth populace within the Metropolis, with the age group of 11-24 years constituting a literacy rate of approximately 97%.

Apart from those aged 60 years and above, the Metropolis had a high well-educated and knowledgeable population of which 4 out of every 5 individuals could read and write in one language or the other. Moreover, 45% of all Persons with Disabilities (PWDs) had achieved basic level education;

secondary or higher education being 28.4%, while 24.9% were illiterates. Comparably, male literacy rate in the Metropolis was 94.1%, higher than the female literacy rate of 85.6% (GSS, 2010).

Population

Burns and Grove (1995), defined a study population as the total set of study individuals or elements. Population is also defined as a collection of persons or other elements who share common characteristics (Stommel & Wills, 2004). The study population constituted in-school JHS adolescents (male and female) between the ages of 12 and 19 years, parents, community/opinion leaders, teachers, SHEP Coordinators and health care providers (heads of health care facilities/CHPS Zones and Metropolitan level) in the Cape Coast Metropolis, in the Central Region of Ghana.

Sampling Procedure

Obtaining a representative proportion of the target population is key in the conduct of a scientific study. Subsequently, the study had two different sample sizes because the data collected was in both qualitative and quantitative forms.

Sample size and sampling technique for quantitative data

To be able to obtain a sample size of the target population for the quantitative data, the inclusion and exclusion criteria were used. The study included in-school JHS adolescents (males and females) between 12 and 19 years in Ekon M/A, Kwaprow M/A and Danicom International School (Abura) and First Fruit International School (Efutu-Koforidua). However, the study excluded adolescents below 12 and above 19 years in JHS. Also, the study

excluded adolescents who were between 12 and 19 years, but were not present in school as the time of the data collection.

Lastly, the study also excluded adolescents whose teachers did not consent for them to participate in the study due to COVID-19 restrictions and protocols. Consequently, the study obtained a sample size of 100 participants from the selected schools within the communities.

Convenience sampling procedure was employed for recruiting the in-school JHS students in the 4 selected schools in the Cape Coast Metropolis. The initial idea was to automatically pick students who were present and whose teacher was approached in the classroom. However, this idea kept failing since, most of the students available at the time of the survey were in final year (JHS 3), due to the COVID-19 pandemic. In view of this situation, most of the teachers were unwilling to permit students to partake in the study. So, I adopted the convenience sampling procedure to enable any teacher willing to permit students to participate in the study to do so as possible. In so doing, any student who was approached and interested in the study was selected to participate.

Sampling size and sampling technique for qualitative data

Regarding the qualitative aspect of the study, it comprised of FGDs and in-depth interviews. With respect to the FGDs, parents whose children were between the ages of 12 and 19 years and were already participants of the study were qualified and eligible, therefore, recruited to participate in the FGDs. When these parents consented to participate, the study objectives were explained, and their indulgence was asked to be participants of the study. Participation in the research was additionally clarified to be voluntary and that

a participant was at liberty to withdraw from the discussions anytime the person deemed it necessary. Confidentiality was also fully assured. Other participants were reached with the aid of some adolescent participants. The FGDs were conducted at a conducive environment, based on the choice of the participants. In all the 4 selected communities, there were 26 parents or guardians who participated, and these participants were grouped under parents of adolescents (10-14) years and (15-19) years respectively.

In-depth interviews also consisted of Community/opinion leaders who were purposively targeted in their respective communities. There were 4 participants, who represented each of the selected communities. Teachers, SHEP Coordinators, health care providers and other stake holders who served as key informants were also targeted at their respective offices in the Metropolis. Permission to interview these teachers and SHEP Coordinators was sought from the heads of the selected schools in the communities and the Metropolitan SHEP Coordinator. There were 5 teachers/SHEP Coordinators, representing 4 from each community and 1 Metropolitan SHEP representative. Health care providers were reached out in their CHPS Zones. Permission was sought from the Metropolitan Health Director and the heads of the CHPS Zones. The participants were 5, representing 4 from each community and 1 Metropolitan Health Director.

Data Collection Instruments

Consistent with the research philosophy, research approach, and research design, specifically, the mixed method case study design, a questionnaire, FGDs guide and interview guide were employed to gather the

primary data for the study. These instruments were chosen because of its appropriateness to the study.

A questionnaire was used to collect data for this study because it is one of the data collection tools useful in quantitative data gathering. Also, it is relatively easier and flexible to administer. The adoption of the questionnaire was influenced by the characteristics of the respondents. Since the respondents were students, they were deemed to be able to read and write, hence, in the position to answer the questionnaire. The questionnaire was composed of 123 major questions which were both close-ended and open-ended questions on knowledge, sources of sexual and reproductive health information, perceptions, sexual and reproductive health needs and utilisation of sexual and reproductive health facilities/services. However, the close-ended questions were dominant compared to the open-ended questions. There were some skip logic questions which probed on major questions. Thus, the questionnaire helped in gathering the quantitative data efficiently.

After administering the questionnaire, data gaps were found, therefore, focus group guides were developed to help fill such gaps. The FGD guide was used to gather qualitative data from 26 parents/guardians who were willing to participate in the study. The FGD guide was composed of semi-structured questions and mainly open-ended questions. The guide provided some opportunities for probing for further pertinent data by means of supplementary questions.

An in-depth interview guide was the last instrument used for the study. The interview guide was structured and composed of closed-ended questions and mainly open-ended questions. Four in-depth interview guides were used to

gather information from community/opinion leaders, teachers, SHEP Coordinators and health care providers (from the Metropolis and CHPS Zones) on adolescents' sources of information on sexual and reproductive health, adolescents' sexual and reproductive health problems and contributing factors to these problems, major adolescents' sexual and reproductive health needs of 10-14 and 15-19 years, community's attitude/perceptions towards adolescents' sexual and reproductive health programs and services (contraceptives etc.), availability of adolescents' sexual and reproductive health services. Challenges faced by these key informants were also assessed to improve on the adolescents' sexual and reproductive health needs in the Cape Coast Metropolis and in Ghana as a whole.

Data Collection Procedures

In consonance with data collection instruments developed, three data collection methods were adhered to; the survey, FGDs and interviews. The all-inclusive method towards information gathering procedures is key since it is required to be coherent with the sampling procedure drawn previously.

Questionnaire

A questionnaire is a form or document covering a number of questions concerning a specific theme, issue or view to be examined. The questions are planned to be responded by a specific group or people, considered to be knowledgeable about the questions in the questionnaire (Burns & Grove, 1995). The study employed a paper-less form of questionnaire known as the 'KoBo Toolbox', due to the COVID-19 pandemic restrictions and protocols. This is an integrated web form and mobile app designed for data collection. The toolbox

helps to transform hard copy questions to digital and deploy for the data to be collected using a mobile phone device. The advantages of using this integrated data collection toolbox are that it is relatively cost effective and less time consuming; thus, data is already available for analysis.

Focus Group Discussion

A focus group discussion is a research strategy encompassing intensive discussion and questioning of small groups of individuals concerning a certain focus or subject, typically on a couple of times over a period of time (Krueger, 1988). In this direction, Marshall and Rossman (1999) opined that the interviewer must create a supportive environment, and ask focused questions to encourage discussion and expression of different opinions. In a focus group, a small group of people (between 8 and 12) are brought together in a room or secluded place to engage in a guided discussion on a specific topic. Typically, focus group participants are chosen without using probability sampling methods. Purposive sampling (as used in key informant interviews) or reliance on available subjects is much more common (Marshall & Rossman, 1999). The rationale behind this technique was to gather generalised data that provided the normative patterns of the beliefs and the way of life of communities studied.

In the case of this study, there were 26 parents with children between the ages of 12 and 19 years who were recruited participate in the FGDs in the study area. These parents were briefed on the topic for discussion and were made to take pseudo names for the discussion. The FGDs were guided by the semi-structured questions in the focus group guide. Information was solicited from these group of people on perceived behaviours of adolescents, adolescents' sexual and reproductive health problems, the major sexual and reproductive

health issues of adolescents (10-14) years and (15-19) years, contributing factors to these issues, parents' attitude/perceptions towards adolescents' sexual and reproductive health programmes (sexuality education, contraception etc.), and sexual right issues (marriage, sexual intercourse, child birth). There were 3 FGD sessions which lasted for approximately one hour for both age groups. The FGDs were all audio recorded. This procedure offered the researcher the opportunity to collect more qualitative (explanatory) data from the participants within a relatively short period as compared to in-depth interviews which would require a one-on-one interaction.

In-depth Interviews

An in-depth interview is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, programme or situation. Ethnographic interviews are conducted not with ordinary people of the community, but rather with key informants, that is, people who have knowledge of the issues and situations in which the researcher is interested (Sarantakos, 1988). Through discussions with such experts (community/opinion leaders, teachers, SHEP Coordinators, health care providers), the researcher gathered rich information about adolescents' sexual and reproductive health due to the varying cultures displayed in the various communities.

Four in-depth interview sessions were conducted for community leaders, health care providers, teachers, SHEP Coordinators, Municipal SHEP Coordinator and Municipal Health Director in the Cape Coast Metropolis. There were 14 participants for the in-depth interviews. Interviews with these key-informants helped contextualise the characterisations of adolescents' sexual and

reproductive health problems and health care experiences voiced by adolescent participants, and linked them to the clinical, organisational, structural and educational backgrounds to which adolescents were exposed to in the health care system. Key-informant interviews were also needed to explore provider's perspective on adolescents' sources of information, sexual and reproductive health programmes (sexuality education, contraception, etc.) and adolescents' attitude towards contraception at the health facility. It also drew attention to the manner in which governmental and educational policies, and code of conducts were applied and the challenges faced during their day-to-day operations.

Data Processing and Analysis

The data collected from the field were analysed according to the data type. The quantitative data gathered from the survey was first cross-checked, thus data cleaning and edited to ensure that there were no errors in the responses and in the information given. This was done using Microsoft Excel, because the software offers the flexibility to clean and edit the data gathered. Data was cleaned, edited and analysed using the KoBo Toolbox. Regarding the qualitative analysis, the FGDs and the in-depth interviews were audio recorded. The researcher did a verbatim transcription with the use of Microsoft Word, since the software afforded the researcher easy access and the flexibility in typing. After transcription, the data was cleaned for grammatical errors, reviewed in details and coded accurately.

Consequently, a portion of the data was compared with all the additional data to detect similarities and inconsistencies. This helped the researcher to conceptualise all the likely linkages in the numerous segments of data. Concepts became apparent and codes were assigned to such segments of

the data and these codes were developed into themes and analysed manually using Microsoft Word. Thematic analysis was carried on the data based on the study objectives and data was then analysed manually. The adoption of these data analytical tools was based on their flexibility and robustness for data processing and analysis.

Data Sources

The study mainly relied on primary data. It constituted other information from journal articles, newspaper articles, books and websites.

Data Quality Control

Various measures were taken to ensure the quality of data of the study. First of all, the interview guides and questionnaires were pre-tested at Amamoma (UCC campus) and Efutu-Koforidua. A total of 10 participants (5 males and 5 females), including parents/guardians, community leaders, adolescents and health care providers were interviewed as part of the pre-testing. This enabled the researcher to validate the tools prior to the main data collection. The instruments, after pre-testing, had to be modified to take care of some inconsistencies and difficulties in interpretations. To ensure validity of the data, triangulation was used to corroborate an overall interpretation of the findings (Mays & Pope, 2000). All techniques (interviews, focus group discussions, and questionnaires) used for data collection complement one another. Therefore, the use of triangulation gave more validity to the data.

Ethical Issues

Ethical issues refer to all moral standards that the researcher was expected to consider in the research methods and in all stages of the research

design. All ethical concerns such as right to participation, informed consent, privacy, non-discrimination or fair treatment of participants were duly adhered to in conducting the research. According to Polit et al. (1995), right to informed consent means the researcher fully explained the nature of the study and the person's right to refuse participation. Self-determination is dependent on full disclosure and right to fair treatment or non-discrimination included that the participants' inclusion was based on the requirements of the research. I further adhered to non-prejudicial treatment of participants who refused to take part in the research or those who withdrew. Additionally, the participants had access to the researcher at any point in the study for clarification.

There was sensitivity to and respect for participant's beliefs, religion, lifestyles, culture and emotions. Right to privacy, as explained by Burns and Grove (1995), means that the information provided by participants will not be shared without their will, and this was adhered to as well. As the study was conducted in the participants' natural environment, anonymity was, therefore, totally upheld. This means the inability to trace information to respondents. The respondents were assured of confidentiality verbally and in written consent forms. The study did not involve any experimental procedure on the respondents and participants. However, research and ethical clearance to conduct the study was sought from the Institutional Review Board, University of Cape Coast; head teachers of the four selected schools; Metropolitan Health Director representing health care providers in the selected communities; Metropolitan SHEP Coordinator of the various SHEP Coordinators in the selected schools.

The following ethical considerations were also followed: Ethical principles of anonymity, confidentiality, and rights of withdrawal were further

ensured among participants and respondents. The research participants were informed of the objectives, methods of the research and I (the field researcher) clarified their roles in the study. For adolescents in particular, I explained to them that participation in the study was voluntary and refusal to take part would not affect their access to services offered by the health facilities. No form of inducement was used to entice participants and respondents to participate in the study and neither did any form of compensation given after the survey, interviews or FGDs. To ensure a conducive environment for the exercise, both the questionnaire administration and individual interviews were held in an environment devoid of many people. To ensure participants' right, I obtained informed consent from them before conducting the survey, interviews and FGDs.

Summary

This chapter has presented the methodology used in the study including the description of the study area, study design, study populations, sampling techniques, research instruments, data collection techniques, data collection tools, methods of data analysis, data quality control and ethical consideration. The study was conducted in the Cape Coast Metropolis, specifically, in Ekon, Kwaprow, Abura and Efutu-Koforidua. The data was both in qualitative and quantitative forms. The data collection tools were questionnaire, FGD guide and interview guide and this included in-school JHS adolescents, parents, community or opinion leaders, teachers, SHEP Coordinators, health care providers and major stakeholders in the Cape Coast Metropolis. Employing the convenient sampling technique, data was analysed thematically, using the KoBo

Toolbox. Informed consent, anonymity and confidentiality was strictly upheld in the conduct of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter present results and discussion of the data obtained from the field. The results have been presented in line with the objectives of the study. They are grouped under four main headings: The demographic characteristics of participants and respondents, knowledge on sexual and reproductive health, perceptions of sexual and reproductive health and sexual and reproductive health needs of adolescents in the Cape Coast Metropolitan Assembly.

Demographic characteristics of participants

This section analyses the socio-demographic background of participants (adolescents, parents and community leaders, teachers/SHEP Coordinators, health care providers and Metropolitan Health Director and SHEP Coordinator) by describing their sexes, ages, religious affiliations, educational levels and ethnic groups. In addition, adolescents' relationship statuses, living arrangements, number of siblings as well as marital statuses and occupation of parents/guardians were also discussed. The section also considers how participants' socio-demographic backgrounds influence their knowledge and perceptions of sexual and reproductive health. The demographic characteristics of participants were considered because, based on earlier studies on adolescents' reproductive health, it was believed that such variables influenced individuals' knowledge, attitudes and perceptions towards understanding adolescents' sexual and reproductive health.

Demographic characteristics of adolescents

Out of the total number of 672 students in all the four selected schools, a sample size of 100 participants, comprising 60(60%) females and 40(40%) males was obtained. The sample size was determined through the use of the convenience sampling, specifically, inclusion and exclusion criteria. This procedure, limited any form of biases with respect to the number of males and females. Irrespective of these considerations, the number of female participants was more than the males because, most of the prospective male participants refused to participate in the study due to the nature of the topic, as they assumed it to be a 'female-related topic'. Furthermore, with respect to the age groups, table 1 shows that 44% were between 18 and 19 years; 34% were between 16 and 17 years; 21% were within the age group of 14 and 15 years and one (1%) represented 12 and 13 years.

The age group show that majority of the respondents were older adolescents in their late teens. Regarding the religious affiliation of adolescents, 44% were Pentecostal/charismatic; 19% were Catholics; 18% were Muslims; 9% were Protestants; 8% indicated other affiliations, and 2% indicated 'no religion'. Evidently, from the findings, there were more Christians than other religious affiliations/denominations because, most of the communities were Christian populated. Also, the educational levels of participants were as follows: JHS 3 were 74(74%), JHS 2 were 14(14%) and JHS 1 were 12(12%). Thus, majority of respondents were in JHS 3 due to the COVID-19 pandemic which mandated final years to be in school to prepare for their final examinations.

Pertaining to the relationship statuses of participants, it was revealed that 42(42%) were dating; 34(34%) were single; 12(12%) indicated 'out of

relationship' or simply, they were 'broken hearted' and 12(12%) indicated not to have ever dated. Reasons for those who indicated not to have ever dated were based on religion, morality, fear of judgmental attitudes of parents and parental abuse. In effect, most of the respondents were into various kinds of heterosexual relationships and 20% indicated having multiple partners for various reasons. Considering the living arrangements of adolescents, 45(45%) were living with both parents; 30(30%) lived with their mothers; 8(8%) were with their fathers and 17(17%) had other forms of habitation which included; living with sexual partners, living with grandparents, aunties and uncles. However, it was found that more adolescents were living with their parents, although they may be involved in different kinds of sexual activities.

Demographic characteristics of parents/guardians and community or opinion leaders

The parents and community leaders selected for the qualitative data were 30 participants; 20(66.7%) were females and 10(33.3%) were males. With regard to the age groups, out of 26 parents and 4 community leaders, 10(33.3%) were above 45 years; 8(26.7%) were between 41 and 45 years; 6(20%) were between 31 and 40 years and 6(20%) were between 25 and 30 years. It can be deduced from the findings that most of the participants were old or mature. Moreover, the religious affiliation of parents was as follows: 17(65.4%) were Christians; 6(23%) were Muslims; 2(7.7%) were protestants and 1(3.9%) had no religion. Similar to the adolescents, there were more Christians than the other types of religious affiliation and these variables influenced their opinions on adolescents' sexual and reproductive health concept.

Besides, the educational level of parents and community leaders were as follows: 12(46%) were Uneducated/illiterate; 8(30.8%) had primary education; 4(15.4%) had secondary education; 1(3.9%) had tertiary education and 1 (3.9%) had other forms of education. Most of these participants, due to their educational background, were fish mongers and petty traders. Lastly, among these participants, 25(83.3%) were married; 3(10%) were divorced and 2(6.7%) were neither married, divorced nor separated. There were also more married parents than divorcees which explains why most of the adolescents lived with both parents. With the 10 key informants purposively sampled for the in-depth interviews, 4 were males and 6 were females, who represented heads of various departments in charge of adolescents' sexual and reproductive health in their respective communities.

Major Findings and Discussion

Demographic characteristics and sexual and reproductive health

With regard to adolescents' living arrangements and their vulnerability to risky sexual activities, it was revealed from study that 17(17%) out of the 45(45%) living with both parents, had ever had sexual intercourse. On the other hand, while 10(10%) out of 30 (30%) adolescents living with their mothers had ever had sexual intercourse, 15% out of 17% co-habiting adolescents had had sexual intercourse. From the study, it was evident that adolescents living with both parents delayed their sexual activities as compared to those living away from home. This confirmed the assertions on studies on adolescents' risky sexual behaviours that living in a family with both parents implied the availability of support, supervision, and behavioural control of adolescents and that living away from home (co-habiting) was rather proven to be an important

factor to adolescents' sexual behaviour (Nyarko et al., 2014). The mode age of adolescents who had ever had sexual intercourse was 15 years. Similarly, literature has proven that in Ghana, adolescents between 15-19 years engage in premarital sex or have ever been sexually active.

However, with respect to adolescents' age and use of contraceptives or condoms, while none of the adolescents between 12 and 13 years had never used contraceptives or condoms, 3(3%) out of 21(21%) between 14 and 15 years had ever used at least, one of the modern contraceptives. In addition, 9(9%) out of 34(34%) between 16 and 17 years and 8(8%) out of 44(44%) adolescents between 18 and 19 years all stated to have ever used contraceptives and condoms. Irrespective of the low figures on contraceptive usage, it however corroborated the findings of Morris and Rushwan (2015) that the older the individuals, the more likely they would practice contraceptive use than those who are relatively younger. Nonetheless, the above finding is in line with Ochako et al. (2015) that older adolescents, thus, between 15 and 19 years do not utilise any modern method of contraception and analytical associations between knowledge, behaviour and HIV status have shown little translation of health knowledge into protective behaviour.

Pertaining to adolescents' educational level and use of contraceptive methods, it was found that out of 12(12%) in JHS 1, only 1 had ever used contraceptives or condoms. Yet, while 4(4%) out of 14(14%) in JHS 2 confirmed to have ever used contraceptive or condoms, only 15(15%) out of 74(74%) in JHS 3 had ever used any method at all. It can, therefore, be concluded that educational level also affected the use of contraceptive methods, as evident in other studies by Averiyire (2015), Hagan and Buxton (2012) and

Rokicki et al. (2017). The types of contraceptive methods used by these few adolescents as indicated were condoms and oral contraceptives (OCPs). Finding from GSS (2010) also emphasised that contraception remained comparatively minimal, although the frequently used methods were condoms and oral contraceptives.

Also, comparing adolescents' religious affiliation and the use of contraceptives or condoms, it was found that while 17% of Christians had ever used any contraceptive method, only 1% of Muslims had ever used any. Also, 2 out of the other religious affiliation had ever used any contraceptive methods. These study findings confirmed popular assertions of Anarfi and Owusu (2011) and Vondee (2018), that a person's religious affiliation can influence his/her knowledge and the use of contraceptive methods in promoting pregnancy prevention. As such, these studies argue that teaching adolescents about contraceptives is a way of showing them how to engage in this sinful practice called 'premarital sex'.

In the case of this study, it is very important to consider an adolescents' personal and environmental factors. According to the Social Cognitive/Social Learning Theory, an individual or human behaviour is influenced or determined by a triadic interaction of cognitive/personal factors such as knowledge, expectations, and attitudes; environmental factors such social norms, access in community, and influence on others in addition to behavioural factors including skills, practice, self-efficacy (Bandura, 1971). Therefore, a sexually active adolescent (with a particular demographic background) also realises that his/her friends are happy with the contraceptive methods s/he has chosen. This

motivates that adolescent to copy and model the same behaviour (seeing positive behaviour modelled and practiced).

Moreover, when the adolescents' community becomes more supportive of and vocal about access to contraceptives for adolescent girls her age, she gains the confidence to talk to her mother about getting contraceptives for herself too (increase his/her capability and confidence to implement new skills). Also, the adolescent after learning about contraceptive methods feels confident that she can also maintain its use and focus on achieving her dreams (gain positive attitudes about implementing skills). Lastly, the adolescent realises that the health facility in her community stays open late and on weekends to support youth like herself that go to school during the day, implying that s/he has better access to her counsellor as well as the sexual and reproductive health services (experiences support from his/her environment to use those skills).

In modifying individual/adolescent behaviour, it is important to consider behaviours that are heavily influenced by both the physical and social environment in which the individual lives. It thus, informs the importance of creating an enabling environment in which the desired behaviour change is made easier.

Knowledge on adolescents' sexual and reproductive health

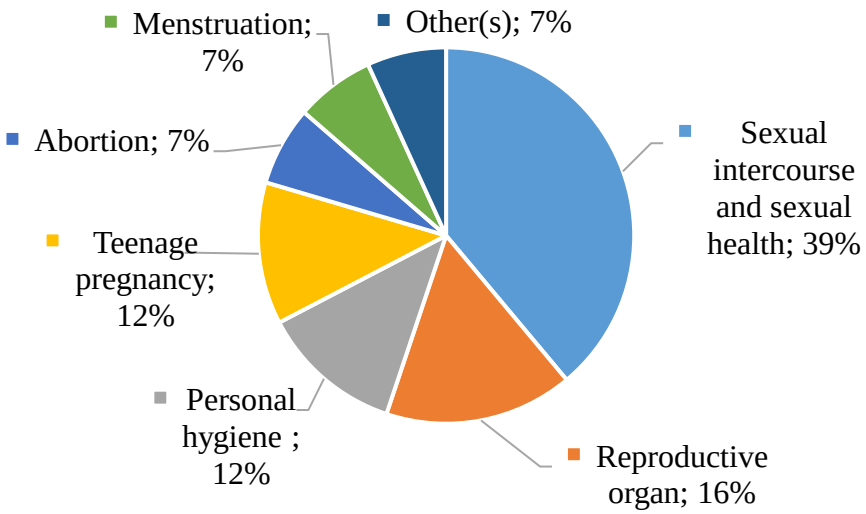

Figure 4: Pie chart showing Adolescents' knowledge on sexual and reproductive health

Source: Fieldwork, Addae (2020)

The study, thus, recorded high level of knowledge and awareness of sexual and reproductive health, although often limited to a particular aspect of reproductive health (thus sexual intercourse, sexual health and teenage pregnancy). Whereas this revelation is in accordance with Darko (2016) who emphasised that adolescents had high knowledge on sexual and reproductive health, it contrasts with that of Biney (2011) and Kyilleh et al. (2018), who argued that adolescents' knowledge on sexual and reproductive health issues had been found not up to mark.

Subsequently, when respondents were asked about the kind of sexual activities going on within their communities, table 3 showed that 71(71%) were into voluntary sexual activities, 18(18%) in abusive relationships and 11% in other relationships which was either situational or conditional. The table also shows the various reasons for engaging in all kinds of sexual activities:

Love/affection 27(27%), and others 5(5%) which also included food and protection. Therefore, most adolescents in the study who had ever had sexual intercourse and were involved in all kinds of risky sexual activities did so voluntarily, out of love and affection. These findings support Tenkorang, and Maticka-Tyndale (2008). assertion that love relationships were the most important factors influencing adolescents' first sexual intercourse.

Again, from Table 3, the highest reason why adolescents engaged in sexual activities with their age/school/classmates, older men/women and SHS students in and outside their communities was money, which represented 68(68%). Thus, from the highest to the lowest reasons were: money, love/affection, food and protection. Most adolescents, therefore, out of poverty/hardships engage in various risky sexual activities for a living. In effect, as argued by Okonta et al. (2013), adolescents and their families living in extreme poverty face many immediate and competing needs and may, therefore, place low priority on efforts to protect their sexual and reproductive health. Indeed, adolescents may engage in, and be exposed to high-risk behaviour because of poverty.

Moreover, the study found that some adolescents were of the view that it was impossible to get pregnant through a 'one-time' or 'first time' sexual encounter. According to them, there should be multiple sexual intercourses before pregnancy can occur. In support of these assertions, Asiedu (2016) also confirmed that most young females assume it is unnecessary to be cautious, since they consider themselves extremely undeveloped to conceive or for the reason that "they had not had sex enough times to conceive". Other preventive measures the study found against teenage pregnancy were 'withdrawal' and

sexuality education. Study findings further indicated that among young people of 15 and 19 years, only a few of them had an in-depth knowledge on pregnancy prevention, female fertile period, ability to disregard numerous common pregnancy misconceptions as well as being acquainted with at least one contemporary family planning method.

Furthermore, regarding abortion, 86(86%) shared their ideas while 14(14%) stated they had no idea. Also, 76(76%) indicated the occurrences of abortion in their communities albeit the known detrimental side effects. To these adolescents, when withdrawal fails, the only pregnancy preventive method they resort to is abortion. This was in line with Shah and Ahman's (2012), assertion that nearly 22 million unsafe abortions occurred worldwide and 3.2 million of the estimated 22 million unsafe abortions occurred among 15- and 19-year-olds.

Regarding parents' perspective of adolescents' sexual and reproductive health, the study revealed a low level of knowledge in the selected communities. This revelation came to light when participants were asked whether they had heard of adolescents' sexual and reproductive health. Some of the themes that emerged from the in-depth interviews were as follows: risky sexual activities, teenage pregnancy, abortions, STIs/STDs. Some of the narrations that emerged were:

> *Adolescents' sexual and reproductive health is whereby young girls engage in sexual activities which lead to pregnancies and STIs/STDs.* (28-year-old female community leader, at Efutu-Koforidua)
>
> *Adolescents' sexual and reproductive health refers to STIs/STDs contracted through sexual intercourse which*

affect pregnancies and sometimes lead to abortions (42-year-old male community leader, at Abura)

The low level of participants' knowledge of adolescents' sexual and reproductive health corroborated Livesey and Rostain's (2017), who reported that demographic factors such as higher education, greater awareness of reproductive health issues and leadership skills of parents, affected their knowledge of adolescents' sexual and reproductive health issues. According to parents/guardians and community leaders, some of the contributing factors to adolescents' risky sexual behaviours were as follows: Love/affection, test of fertility, poverty/hardships, lack of parental care, lack of job opportunities, peer pressure/influence.

According to the teachers and SHEP Coordinators who participated in the study, adolescents' level of knowledge on sexual and reproductive health is minimal. This was revealed when participants were asked if adolescents had knowledge about the concept, based on the form of education and interaction between these young people in their various schools. In the in-depth interviews, 25(25%), said that adolescents were quite knowledgeable on issues such as: teenage pregnancy and STDs/STIs. However, 75(75%) said adolescents were not knowledgeable on the concept since there were no forms of sexual and reproductive health education in their schools offered to these adolescents. Some statements from the participants were:

Oh yes! They will have a fair idea about ASRH because we do organise some sort of programmes with them so at least, they have an idea on adolescents' sexual health. We discuss Sex education, and treat topics such as

STD's, effects of sex on education (specifically teenage pregnancy and the consequences on their education). At least, these are some of the key issues that we discuss during our meetings. (SHEP Coordinator, at Kwaprow M/A JHS)

Hmmm I do not think adolescents are knowledgeable on sexual and reproductive health because… these things are not mostly done at home but since we are in school, we talk about it. But we do not have a time allocated for it so we use 5 minutes of worship time or 10 minutes to educate the whole school on sometimes, a disease or personal hygiene (SHEP Coordinator, at Ekon M/A JHS)

The health care providers of adolescents' sexual and reproductive health services who participated in the study indicated that the kind of health care services generally provided for adolescents across the Metropolis included school health, family planning, GIFTS, Antenatal Care (ANC), and Comprehensive Abortion Care (CAC), mental health, Child Welfare Clinic (CWC) and general Out-Patient Department (OPD) services. In view of this, participants were further asked if the services were provided to all adolescents irrespective of their socio-economic statuses. The participants explained that adolescents' sexual and reproductive health services were provided equally across the Metropolis. In response, it was explained through key informants' in-depth interviews:

In Cape Coast Metropolis here, we give all healthcare services, but then for adolescents, we are particularly

interested in teenage pregnancy and we are also interested to know the identity of the person who made the teenager pregnant because we want to know if it is a teenager or an older person who made the adolescent pregnant. (Metropolitan Health Director, at CCMA)

The school health services are provided at the schools. With this, the nurses go to the schools to talk to the students and give them health education, then the students do physical examination. So, through that, they are able to identify any health-related issues that they are having. Then they refer them to the hospitals for further management if the need arises. Some of the health education they give are on personal hygiene and sex education, menstrual cycle among others. (Physician Assistant, at Efutu).

There are school health education programmes that tackles the adolescent health as well but that is only for those in J.H.S 3. We carry out activities on personal hygiene. There are adolescent health clubs just like they have the drama and debate clubs, whose focus is on adolescent health, from menarche to when they leave school. (Metropolitan SHEP Coordinator, at CCMA)

Adolescents' sources of sexual and reproductive health information

Figure 5 shows adolescents' diverse sources of sexual and reproductive health information which included in-school agents, the media (television,

radio, and internet among others), health centres, home, church/mosque, friends/peers and community members as the other alternative sources of information.

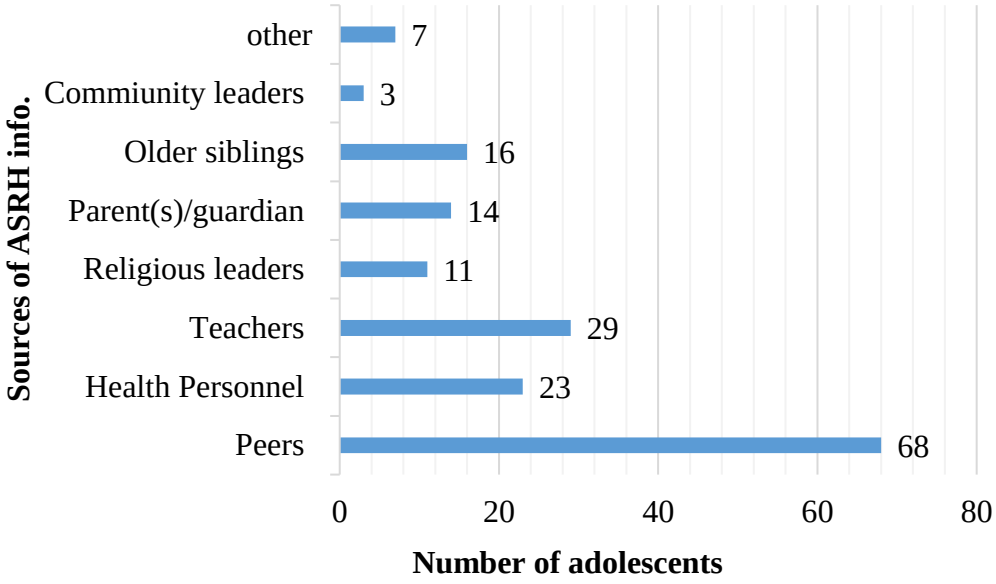

Figure 5: Bar graph showing adolescents' sources of sexual and reproductive health information

Source: Fieldwork, Addae (2020)

In Figure 5, 68(68%) indicated their peers as their main sources of sexual and reproductive health information rather than other people in their communities. Consequently, teenagers possess misleading information including false beliefs or misconceptions. The study also delved into knowing the person(s) with whom adolescents discussed their sexual and reproductive health issues with. The study found that adolescents relied more on friends/peers and the media than their relatives or significant others. The concern remains that usually in several African households, sex and sexuality matters such as abortion and use of contraceptive methods are still widely viewed as taboo subjects (Asampong et al., 2013). In addition, there is little or practically no

communication on sex, even between partners. Therefore, children are compelled to learn about sexuality issues on their own.

However, some of the parents/guardians and community leaders commented in the FGDs and in-depth interviews that adolescents' relied more on social media for their sexual and reproductive health information.

> *This time around, the major contributing factor is this 'WhatsApp' and 'Facebook' thing going on the social media ooh.* (62-year-old female community leader, at Abura)
>
> *If you care to know, phones are the major contributing factors to most of the youth's inappropriate behaviour nowadays* (62-year-old female parent at Ekon)

In addition, teachers and SHEP Coordinators indicated that there were no forms of health curriculum or education rendered on adolescents' sexual and reproductive health in their junior high schools. Rather, teachers did their best to highlight on the following prominent topics such as sexuality education specifically on STDs/STIs, girl-child education issues including the effects of sex on education (specifically teenage pregnancy and its consequences on adolescent education and folic acid distribution, environmental hygiene on how to avoid the occurrences of diseases such as cholera etc., personal hygiene on washing of hands and general body cleanliness, and general health issues. As such, participants made the following statements to support the above:

> *No, we do not have anything of that sort in the school, the teachers only do referral of cases beyond our expertise. The school does not have any ASRH services*

available. (Teacher, at First Fruit International School, in Efutu-Koforidua)

In fact, previously we used to include HIVAIDS in the classroom lessons irrespective of the subject being taught. Apart from this, there is also the school-wise education forums for the students and through this programme, drugs are administered to identified patients among the students. (SHEP Coordinator, at Kwaprow M/A JHS)

There is no specific health or sexual and reproductive health curriculum, so we teach the students some of those related topics as part of the subjects such as Social Studies, Religious and Moral Studies or Integrated Science. So, they will get to know it through all those lessons in class. (SHEP Coordinator, at Ekon M/A JHS)

Due to the lack of training skills and curriculum to guide the teachers on sexuality issues, teachers shy away from teaching sexuality education. This also explains why most adolescents in the study indicated friends/peers as their main source of information because to them, schools do not offer much sexual and reproductive health information as expected.

The Theory of Planned Behaviour emphasises that individuals' behavioural intention is the most important determinant of behaviour (Ajzen & Fishbein, 1980 & 1991). With regards to this study, the adolescent must feel that the behaviour (current behaviour), will be beneficial to him/her (attitude). The adolescent should personally have the feeling that abstinence, contraceptive

or condom use is a good way to prevent sexual and reproductive health issues such as STDs/STIs and unwanted pregnancies. When the individual appreciates the essence of the behaviour, then the behaviour can be initiated and sustained effectively. In addition, since the adolescent appreciates the opinion of the close social networks (partner, family, friends/peers) around him/her, s/he should believe that those people around also accept the 'alternative/suggested behaviour' (subjective norm). At this point, the adolescent will be able to sustain his/her healthy behaviour with the support of the close social network.

Furthermore, the adolescent should also believe that s/he has the capability to change his/her behaviour (current behaviour) (perceived ability). In this regard, based on the necessary and right sexual and reproductive health information or knowledge gained, the adolescent has the confidence to be able to abstain or access and use contraceptives and condoms successfully to prevent any unwanted pregnancy or STDs/STIs. Conclusively, the relationship between the theory of planned behaviour, the conceptual framework and the study is that it can be used to change behaviours that are heavily influenced by peers (since they were considered as the dominant sources of information) and the close social networks (parents, teachers, health care providers). The close social network needs to be targeted to support the desired behaviour change in the adolescent.

Adolescents' perceptions of sexual and reproductive health

Adolescent participants were asked to share their individual thoughts on contraceptives and condoms. While 78(78%) had positive views about contraceptives and regarded it as "life savers", 22(22%) perceived it to be "complicated" and for adult use only. On the other hand, 69(69%) believed that

being on any contraceptive method was a good decision, however, 17(17%) saw those utilising such service to be immoral and promiscuous. Study findings were similar to Godia et al. (2014) where contraceptive use by adolescent girls was not approved of by other young people. According to the authors, it was believed that the use of contraceptives at an early age was considered to negatively affect the reproductive system (fertility) of the adolescent girl.

With respect to adolescents' perceptions concerning health care personnel's provision of adolescents' sexual and reproductive health services, 60(60%) had negative perceptions about health care providers, including Judgmental attitudes, disrespectful, mean, not well trained, not knowledgeable, unfriendly and impolite. 40(40%), however, responded that health care providers were knowledgeable, helpful, caring and provided good health care services. Besides, whereas 14(14%) saw adolescents' health care facilities in their urban communities as well equipped and accessible, 71(71%) saw health care facilities in their rural communities as inefficient and inadequately equipped. Additionally, 15(15%) indicated long queues and over-crowding at their community health care centres. The current study supports a similar study by Anaba and Abuosi (2018), where such similar issues such as long waiting hours, over-crowding and judgmental attitudes of providers were reported by adolescents in the study.

With regards to parent-child sexual and reproductive health communication, the study revealed that 30% discussed sexual and reproductive health with their children in a more precautionary or threatening manner with regards to sexual and reproductive health problems. Seventy percent believed that discussing sexual and reproductive health issues at home 'was not

necessary', a sacred and forbidden topic not worthy of discussion between the elderly and the young. These findings are also in line with Awusabo-Asare et al. (2017), in which sexual and reproductive issues discussed among families were mostly precautionary-based, fearful and characterised by vague warnings. Therefore, these 70% disproved of sexuality education and contraception on the basis of religious beliefs (ungodly/immoral act/uncultured method) as in studies by Anarfi and Owusu (2011), where sexuality education was opposed by religious groups and agents of socialisation.

> *Personally, I think that even before the adolescents are introduced to contraceptive methods, we should start with sex education when both male and female children reach an adolescent stage. So as sex education goes on, the parents can monitor their wards. So that when they see any changes in their behaviour or anything at all (in the case of a female) then they can confront the child and if she is open to you, then you realise that mistakenly she has started having sex, or she could not control herself, then you introduce her to the contraceptives.* (28-year-old male Muslim community leader, at Ekon)

> *Contraceptives should not be introduced to adolescents because its side effects are too much. Even adults like us are not even interested, I do not see why children at such ages should be excited about it. If possible, highlight the consequences to them when such educational programmes are organised and if they are still*

interested, that will be their own problem. But I will not personally advice anyone on such a step. It is dangerous. (55-year-old female Christian community leader, at Kwaprow)

If ASRH programmes are to be organised, it should only be opened to adolescents who are 18 yrs. and above. It would be okay for people within that age category to be educated on such issues, but it will not be helpful if the program is left opened to adolescents within 10-17 years. So, if it will be strictly for the 18 years and above, then it will be gladly acceptable (48-year-old male Christian community leader, at Efutu-Koforidua)

With regard to the reproductive health needs of adolescents, questions were raised on the available adolescents' or youth-friendly reproductive health facilities within their communities, 58(58%) mentioned that they did not receive any sexual and reproductive health information or services from school, church, home or health centres. Again, 59(59%) responded that they had no sexual and reproductive health facility in their respective communities while 41(41%) indicated of the availability of facilities such as: hospitals, CHPS Zones, and PPAG centres in their various communities.

In terms of accessibility, 22(22%) expressed less difficulties while 7(7%) said otherwise. However, regarding cost of services, 15(15%) said that they paid for the services received while 14(14%) opined that they received the services for free. Based on their personal experiences with these facilities, 19(19%) recommended the facility to their peers while 10(10%) did not

recommend on the grounds of: remoteness, expensive cost of services, inefficient health care personnel and irrelevant information received from these health care facilities. Again, 15(15%) opined that they did not have access to condoms and contraceptives and raised concerns such as: increased teenage pregnancies, increased unprotected sexual intercourse and STDs/STIs, while 17(17%) were not too certain about accessibility and availability, 68(68%) on the other hand, confirmed on the availability and accessibility of condoms and contraceptives. As such, 66(66%) mentioned gaining it from drugstore/pharmacy and 2(2%) received condoms or contraceptives from peers. These findings were similar to earlier studies emphasising that most adolescents obtained their supplies from the private sector such as private hospitals, private clinics and pharmacy. (Aninanya et al., 2015; Godia et al., 2014; Hall et al., 2018; Helamo et al., 2017).

The Health Belief Model highlights the importance of individual beliefs about sexual and reproductive health and its related issues (teenage pregnancy, STDs/STIs, abortion) and the costs and barriers associated with changing a behaviour (previous behaviour) (Hochbaum, Rosenstock & Kegels, 1952). This model is based on the understanding that an adolescent is likely to change behaviour if s/he believes to be at risk of becoming pregnant or contracting STDs (perceived susceptibility/seriousness). Also, the adolescent is again likely to change behaviour if s/he thinks that current behaviour (abstinence or contraceptive and condom use) will reduce his/her risk to sexual and reproduction health issues (perceived benefits). Moreover, how an adolescent interprets the cost/barriers of the desired behaviour will influence him/her to change behaviour (perceived barriers). For instance, an adolescent female

believes her partner would not want to use condoms and would neither allow her to use contraceptives but, for her, the benefits of using contraceptives to prevent any unwanted pregnancy or STDs outweigh her partners' reaction.

Furthermore, the adolescent is highly likely to change behaviour if s/he experiences the strategies to activate 'readiness' (cues to action). In this study, if the female adolescent receives the needed sexual and reproductive health education about abstinence, contraception and the different options available to her, she is likely to change his/her risky sexual behaviours. Lastly, if the adolescent has confidence in his/her ability, s/he is likely to change his/her behaviour (self-efficacy). For example; a female adolescent feels confident that she can access and use contraceptives correctly to avoid any unwanted pregnancy. In conclusion, the Health Belief Model promotes adolescent preventive behaviours, such as abstinence, condom or contraceptive use. It also focuses on the beliefs and perceptions of the adolescent to change behaviours that are not heavily influenced by the society and social networks. It also indicates the importance of highlighting both the negative consequences of the current behaviour and the positive consequences of the alternative, suggested behaviour.

Contributions of the Study to Knowledge

This study was an attempt to understand adolescents' sexual and reproductive health needs in the Cape Coast Metropolis. An important contribution of this study to existing knowledge was that adolescents between 15-19 years often engage in risky sexual behaviours or activities in the quest to test their fertility. Whereas younger adolescents mostly consider love and affection as the vital reason for engaging in risky sexual behaviours, this was

not the case for the older adolescents where unplanned pregnancies and illegal abortions (social pressure) signify female adolescents' ability to procreate.

Another important finding of this study was that female adolescents, living with single mothers, mostly abstain from risky sexual behaviours due to fear and the 'precautionary based' parent-child communications on sexual and reproductive health. This was a contrast to popular assertions where among females, the presence of a father at home during childhood and adolescence, was significantly associated with a later sexual activity.

Chapter Summary

The study found that most parents, guardians, community/opinion leaders do not have health adolescents' sexual and reproductive health discussions at home. This is attributed to the perception that such discussions will rather expose the adolescents to indiscriminate sexual activities. Again, teachers are not well train on adolescents' sexual and reproductive health and are therefore unable to educate the students in this regard. Health care providers face a couple of dilemmas in the provision of adolescents' sexual and reproductive health services. Some older adolescents who often visited health care facilities are sometimes unable to afford costs of services and the attitude of health care providers serves as serious barriers to utilisation of the available adolescents' sexual and reproductive health facilities.

Although younger adolescents also wish to seek for confidential counselling services, they are often unable to due to shyness/embarrassment and often the negative misconceptions towards reproductive health facilities. Due to all these barriers, most adolescents often rely on their peers and the media for reproductive health information. Furthermore, to be able to cater for

adolescents' sexual and reproductive health needs, it is necessary for parents, guardians, community leaders, teachers, SHEP Coordinators and health care providers to confidentially and comprehensively educate adolescents on their sexual and reproductive health irrespective of their ages.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter provides a summary of key findings, conclusions and recommendations from the study. It also presents the contributions of the study to knowledge, implications of the study for public health policy and the promotion of adolescents' sexual and reproductive health issues.

Summary

The study tried to understand adolescents' sexual and reproductive needs in the Cape Coast Metropolis in the Central Region of Ghana. This was a mixed method study that employed both qualitative and quantitative techniques. The study employed convenient sampling technique for gathering the quantitative and qualitative data respectively. In-depth interviews, focus group discussions, and a questionnaire were used for data collection. In addition, the Health Belief Model, Theory of Planned Behaviour, the Social Learning/Social Cognitive Theory were also employed to guide the study. Data were analysed both quantitatively and qualitatively.

Key Findings of the Study

1. The findings revealed that demographic variables such as: age, religious affiliation, educational level and living arrangement, influenced adolescents' knowledge on sexual and reproductive health.
2. The study found adolescents' knowledge on sexual and reproductive health to be generally minimal and often limited to sexual health. This

was because, adolescents mostly relied on their peers and the media for sexual and reproductive health information.

3. The study established that adolescents' knowledge did not correspond with their utilisation of the available sexual and reproductive health services due to perceptions such as: judgmental attitudes of some health care providers, geographical location, unavailability of health care facilities and providers, cost of services, misconceptions, personal disinterestedness and unequipped nature of some health care facilities. Adolescents considered these as barriers to achieving optimal sexual and reproductive health needs.

Conclusions

From the study, it can be concluded that understanding adolescents' sexual and reproductive health needs in the Cape Coast Metropolis has been quite challenging on the key findings.

1. Demographic variables such as age, religious affiliation, educational level and living arrangement impacted adolescents' knowledge on sexual and reproductive health. This was because, individual behaviours were heavily influenced by the physical and social environment in which they lived in.
2. Adolescents' knowledge on sexual and reproductive health was very minimal. This was as a result of ineffective parent-child communication and inadequate training of teachers on adolescents' sexual and reproductive health, in addition to the judgmental attitudes of health care providers.

3. Peers and the media were the dominant sources of adolescents' sexual and reproductive health information due to the barriers of adolescents' sexual and reproductive health service utilisation.
4. Adolescents' perception of sexual and reproductive health included judgmental attitudes of some health care providers, geographical location, unavailability of health care facilities and providers, cost of services, misconceptions, personal disinterestedness, and unequipped nature of some health care facilities. According to adolescents, these perceptions served as barriers to achieving optimal sexual and reproductive health needs.

Recommendations

Based on the findings, the following recommendations are made:

1. NGOs interested in adolescents' sexual and reproductive health and the Ghana Health Service, should organise community outreaches for parents and guardians on the essence of parent-child sexual and reproductive health discussions. This will complement the efforts made by the Ghana Health Service and Ghana Education Service to improve on adolescents' sexual and reproductive health.
2. The collaboration between GES and GHS should be intensified and strengthened, with emphasis on comprehensive sexuality and reproductive health education as a compulsory subject for all students. This will adequately equip adolescents with the knowledge on sexual and reproductive health.
3. Adolescents should be encouraged by all stakeholders to visit the available sexual and reproductive health facilities, instead of relying on

their peers and the media for information regarding their sexual and reproductive health. This will effectively reduce misconceptions and other barriers to optimal sexual and reproductive health.

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APPENDICES

APPENDIX A

UNDERSTANDING ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH NEEDS IN THE CAPE COAST METROPOLIS

UNIVERSITY OF CAPE COAST

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

SHEP COORDINATORS' IN-DEPTH INTERVIEW GUIDE

Dear participant,

I am currently carrying out a study on the topic "U*nderstanding Adolescents Sexual and Reproductive Health Needs in the Cape Coast Metropolis*. Please feel free to ask any questions or seek clarifications. The information that you provide will be treated confidentially. The information provided will not be shared with anyone outside the research team and will be used strictly for academic purpose. Participation in this research is voluntary and you are free to withdraw your participation at any time. Please provide response (s) where appropriate. Thank you

1. Position in the school
2. How long have you served in the school?
3. What are your responsibilities as the SHEP Coordinator in the school
4. Do adolescents in your school have knowledge in SRH?
5. How often do you organize these programs for the adolescents?
6. What are some of the specific ASH issues being taught or discussed?

7. What is the period/duration/time set aside for these educational meetings?
8. Does the meetings affect normal classroom lessons?
9. What are the SRH problems that the majority of adolescents face in your school?
10. What are the SRH problems that people (particularly young people) in this school have identified as most important to tackle?
11. Is there a time set aside outside the classrooms lessons for counselling? Do you discuss SRH issues with adolescents in and outside classrooms?
12. Is there any form of ASRH services rendered in the school?
13. Are there any forms of health curriculums, including education on puberty and menstruation; gender and sexuality; FP; HIV prevention; GBV; and age-appropriate life skills such as identifying values and understanding consequences of behaviours (for young adolescents) and negotiating relationships and condom use (for older adolescents) embedded in the classroom lessons?
14. Is there any form of partnership with GHS to support ASRH in your school?
15. Are peer educators available in this school?
16. How would you describe the relationship between peer educators/counsellors and adolescents in the school?
17. Where can adolescents in your school get reproductive health information and services like STI's, contraception, prenatal care, delivery care, and unwanted pregnancy?

18. Have peer educators and counsellors been trained on SRH issues and ways of handling them?
19. Do teachers or school nurses act as community distributors of sanitary materials for menstrual hygiene condoms and other forms of contraceptives (such as OCPs) in this school?
20. How do female students obtain such materials and services?
21. Apart from classroom lessons, how does the school support ASRH?
22. What are some of your challenges as a SHEP coordinator and how you're dealing with these challenges in your school?
23. What are the different SRH needs of those aged 10 to 14 compared to those 15 to 19 or 20 to 24year olds?

Closing question

24. What other information would you like to share concerning ASRH?

APPENDIX B

UNDERSTANDING ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH NEEDS IN THE CAPE COAST METROPOLIS

TEACHERS' IN-DEPTH INTERVIEW GUIDE

Dear participant,

I am currently carrying out a study on the topic "U*nderstanding Adolescents Sexual and Reproductive Health Needs in the Cape Coast Metropolis*. Please feel free to ask any questions or seek clarifications. The information that you provide will be treated confidentially. The information provided will not be shared with anyone outside the research team and will be used strictly for academic purpose. Participation in this research is voluntary and you are free to withdraw your participation at any time. Please provide response (s) where appropriate. Thank you

1. Position
2. How long you've served in the school
3. Your responsibilities or duties in the school
4. Do you think adolescents have adequate knowledge on SRH?
5. What are their sources of information?
6. Do you think in-school adolescents engage in early sexual debut and risky sexual behaviours?
7. Who are their influencers?

i. At what age do boys start?

ii. At what age do girls start?

iii. Who are their partners?

8. What are the SRH problems that the majority of adolescents in your school face?

i. Of the SRH problems that urban adolescents face, which can you address most easily?

ii. What are the SRH problems that receive less attention?

iii. What are the SRH problems that people (particularly young people) in this school have identified as most important to tackle?

9. Do you discuss SRH issues with adolescents in and outside classrooms? Explain your reason

10. What health services are provided generally for in-school adolescents in this school?

11. What sexual and reproductive health services are provided for in-school adolescents in this school?

12. Is there any form of health curriculums, including education on puberty and menstruation; gender and sexuality; FP; HIV prevention; GBV; and age-appropriate life skills such as identifying values and understanding consequences of behaviours (for young adolescents) and negotiating relationships and condom use (for older adolescents) in this school?

- If no, why not?
- If yes, how is this done without conflicting with any class lessons?

13. Where do adolescents in your school seek information and treatment for STI's, contraception, prenatal care, delivery care, and unwanted pregnancy?

14. Are peer educators available in this school?

15. Does peer educators offer age-appropriate Reproductive Health education sessions in this school?

16. Apart from GES, do you receive any form of support in the provision of Sexual and Reproductive Health Services to students?
17. Is there any form of partnership with GHS?
18. Are the services provided equally across the age groups? Irrespective of their socioeconomic status?
19. Or are there any special education programmes for young adolescents in this school?
20. Are there teachers specially trained to offer these services?

i. If yes, how? If not, why not?

ii. Does Reproductive Health outreach staff provide Reproductive Health question-and-answer sessions to older adolescents in classroom settings?

- If yes, how is this done?
- How is the relationship between coordinators and adolescents like?
- Any code of conduct for coordinators?

iii. How are teachers trained to identify high-risk adolescents and develop a system linking them with Adolescents Sexual and Reproductive Health services?

iv. Do teachers or school nurses act as community distributors of condoms and other contraceptives (such as OCPs) in this school?

- If not, apart from classroom lessons, how does the school support ASRH?

v. Are the female teachers in charge of distributing sanitary materials for menstrual hygiene?

- Does the school offer such services here?
- If not, how do female students obtain such materials and services?

vi. Is there any form of health screening done in this school apart from health education programmes?

vii. Are there referral systems in place for emergency services?

viii. Is it effectively functional? Readily accessible and available?

ix. Are the services provided for free? If no, is it affordable?

x. Do adolescents patronize these services?

- If no, why not?
- Any reasons why adolescents may not want to patronize these services? For instance; barriers to Sexual and Reproductive Health services (socio-cultural, parental perception, beliefs/norms)? Any governmental policy barriers?
- If it's in existence, what could be done about these barriers?

xi. Challenges in the execution of your responsibilities or duties to adolescents in your school

- How are you dealing with the challenges?

APPENDIX C

UNDERSTANDING ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH NEEDS IN THE CAPE COAST METROPOLIS

HEALTH CARE PROVIDERS' IN-DEPTH INTERVIEW GUIDE

Dear participant,

I am currently carrying out a study on the topic "U*nderstanding Adolescents Sexual and Reproductive Health Needs in the Cape Coast Metropolis*. Please feel free to ask any questions or seek clarifications. The information that you provide will be treated confidentially. The information provided will not be shared with anyone outside the research team and will be used strictly for academic purpose. Participation in this research is voluntary and you are free to withdraw your participation at any time. Please provide response (s) where appropriate. Thank you

1. Name of the organization: .....
2. Position in the organisation: .....

As the ……at this institution, I am sure that you have a wealth of experience and in-depth knowledge in reproductive health matters. I would like you to share some of this information with me. At this juncture, I would like to ask you a number of questions.

3. What do you think are the major health needs/concerns facing adolescents in Ghana and in Cape Coast today?
4. How should the sexual and reproductive health needs of adolescents in the community be addressed?

5. What health programs or opportunities have been designed to reach adolescents?
    i. By whom were they designed?
6. What are the reasons that adolescents might not seek care for sexual and reproductive health problems?
7. As far as you know, is anything being done by the government, NGOs or other agencies to address these issues or concerns?
8. Is there a place in your community where young people like you are able to visit to talk and find out about relationships, sex, contraception, sexually transmitted infections, HIV/AIDS, etc.? Please explain……
9. Where do adolescents in the community seek treatment for STI's, contraception, prenatal care, delivery care, and unwanted pregnancy?
10. What are the reproductive health services that are offered at this Institution or in the district?
11. Among the services that you have mentioned, which ones are offered especially for adolescents?
12. What are the reproductive health services that are most sought by the adolescents at your health centre/ facility?
13. Is the facility located near a place where adolescents (both female and male) congregate? (Youth centre, school, market, etc.) please specify
14. Is the facility open during hours that are convenient for adolescents (both female and male) particularly in the evenings or at the weekend; please specify
15. Are there specific clinic times or spaces set aside for adolescents?

16. Do counselling and treatment rooms allow for privacy (both visual and auditory)?
17. About how many boys/girls seek reproductive health services from your health centre/ facility per day?
18. Are the services offered in the same setting as those of the adults?
19. If both adults and adolescents are treated in the facility, is there a separate, discreet, entrance for adolescents to ensure their privacy? Please explain
20. What kinds of sexual and reproductive health services are provided for adolescents? Please specify
21. Can you tell me how your institution/ organisation is involved in the provision of reproductive health services to adolescents in the district?
22. Are RH services offered for free, or at rates affordable to adolescents? Please explain
23. Are waiting times short? Please explain
24. What do you do when an unmarried adolescent presents to the clinic with an STI for HIV counselling and testing, for contraception, for prenatal care, for delivery care, for an unwanted pregnancy or after a sexual assault?
25. Is there a Code of Conduct in place for staff at the health facility? Please explain
26. Is there a transparent, confidential mechanism for adolescents to submit complaints or feedback about SRH services at the facility?
27. How would you describe adolescents' knowledge about correct condom use?
28. How do you deal with a married adolescent client who comes to the facility for sexual or reproductive health services?

29. Do you or your institution/organisation face any specific challenges when offering reproductive health services to adolescents?
30. What are some of the challenges that you or your institution/organisation face in offering reproductive health services in general?
31. In your opinion, how best can these challenges be resolved?
32. Please tell me about the existing government policies on reproductive health care in Ghana?
33. In your opinion, how do these policies influence provision and utilisation of reproductive health services by adolescents in the district?
34. What are the major challenges in implementation of these policies?
35. In your opinion, how best can these challenges in policy implementation be addressed?

Closing question:

36. What additional information that you would like to share with me?

FOCUS GROUP DISCUSSION GUIDE FOR PARENTS

1. Sex
2. Age
3. Religious Affiliation
4. Residence (Urban or Rural)
5. Educational level
6. Ethnic Group
7. Marital Status
8. Number of Children
9. Sex of Children

10. Occupation
11. The perceived behaviours of 10-14 and 15-19 yrs. adolescents in the community
12. Are adolescents in the community having sex?
13. What are the ASRH problems present in this community?
14. What is the community's attitude (beliefs and perceptions) towards sexual and reproductive programs (contraception, family planning, abortion) for adolescents 10-14 and 15-19 years?
15. Should it be socially acceptable for married and unmarried adolescents in this community?
16. At what age do you think an adolescent is due/ready to have sexual intercourse?
17. At what age do you think an adolescent is due/ready to have sexual intercourse?
18. What are their sources of SRH information?
19. What or who influences their behaviours?
20. How should the SRH needs of adolescents in the community be addressed?
21. What kind of programs would you like to be designed for adolescents 10-14yrs and 15-19 yrs.?
22. How would you like the programs to be organized in the community?

Closing question

23. What other information would you like to share concerning ASRH?

APPENDIX D

UNDERSTANDING ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH NEEDS IN THE CAPE COAST METROPOLIS

COMMUNITY/OPINION LEADERS' IN-DEPTH INTERVIEW GUIDE

Dear participant,

I am currently carrying out a study on the topic "U*nderstanding Adolescents Sexual and Reproductive Health Needs in the Cape Coast Metropolis*. Please feel free to ask any questions or seek clarifications. The information that you provide will be treated confidentially. The information provided will not be shared with anyone outside the research team and will be used strictly for academic purpose. Participation in this research is voluntary and you are free to withdraw your participation at any time. Please provide response (s) where appropriate. Thank you

1. Sex
2. Age
3. Religious Affiliation
4. Residence (Urban or Rural)
5. Educational level
6. Ethnic Group
7. Marital Status
8. Number of Children
9. Age (s) of children
10. Sex of Children
11. Occupation

12. What is ASRH?
13. What are the ASRH problem (s) present in this community?
14. What factors contribute to the problem (s)?
15. What causes or contributes to those factors?
16. Who are those mostly affected by the problem (s)? (10-14yrs/15-19yrs; male/female)?
17. What knowledge do youth have on this SRH problem (s)?
18. What are adolescents' sources of SRH information?
19. What or who influences their behaviours?
20. How are relationships within (10-14) & (15-19) year olds perceived in this community?
21. What attitudes do youth have about this SRH problem?
22. What attitudes (beliefs/perceptions) do you have of SRH? (contraception, family planning, abortion)
23. Are adolescents in the community having sex?
24. At what age do boys start?
25. At what age do girls start?
26. Who are their partners?
27. Have their partners changed over a period of time?
28. Why do you think adolescents have sex?
29. At what age do you think an adolescent is due/ready to have sexual intercourse?
30. What is the average age for adolescents to have sexual intercourse in this community?

31. What is the average age for adolescents to have sexual intercourse in this community?
32. Are there any social norms that may support or act as barriers adolescent risky sexual behaviours?
33. What kinds of traditional rites of passage or ceremonies are practiced in the community? (FGM, forced marriage, abduction, wife-inheritance, etc.)
34. Do adolescents have access to contraception and condoms?
35. How do you feel about this?
36. Do adolescents use contraception? Reasons for their behaviour?
37. Are the contraception used consistently and correctly?
38. How do 15 to 19-year-old adolescents feel about contraception? Are there myths or barriers that need to be addressed?
39. What would be the best methods to promote contraception among them?
40. At what age do you think an adolescent is due/ready to marry?
41. What is the average age of marriage for adolescent girls in the community?
42. What of adolescent boys?
43. What are the reasons for marriage?
44. At what age do you think an adolescent is due/ready to have babies?
45. What is the average age for adolescents to have babies in the community?
46. Which 10 to 19year olds are most likely to become pregnant or to make a girl pregnant?
47. What are the SRH problems that the majority of urban adolescents in your community face?
48. Of the SRH problems that urban adolescents face, which can you address most easily?

49. What are the SRH problems that people (particularly young people) in this community have identified as most important to tackle?
50. Do you discuss SRH issues with your child (ren)? Explain your reason
51. Which family members or other adults can adolescents go to for support and advice?
52. What are the different SRH needs of those aged 10 to 14 compared to those 15 to 19 or 20 to 24year olds?
53. Where **can** adolescents get reproductive health information and services including family planning?
54. Where **do** adolescents in the community seek information and treatment for STI's, contraception, prenatal care, delivery care, and unwanted pregnancy?
55. Are RH services offered for free, or at rates affordable to adolescents? Please explain
56. Does your child visit the facility either for information or treatment on SRH issues? Please explain……
57. What are the reasons why adolescents might not seek care for sexual or reproductive health problems?
58. Where do you think that adolescents **should** get information about sexual and reproductive health?

Closing question

59. What other information would you like to share concerning ASRH?

APPENDIX E

UNDERSTANDING ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH NEEDS IN THE CAPE COAST METROPOLIS

UNIVERSITY OF CAPE COAST

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

QUESTIONNAIRE FOR ADOLESCENTS

Dear respondent,

I am currently carrying out a study for the purpose of writing a thesis as a requirement for the award of MPhil in Sociology at University of Cape Coast. The topic for the study is "U*nderstanding Adolescents' Sexual and Reproductive Health needs in the Cape Coast Metropolis*. Please feel free to ask any questions or seek clarifications. The information that you provide will be treated confidentially and will be used strictly for academic purpose. Participation in this research is voluntary and you are free to withdraw your participation at any time. Please tick or provide answer (s) or response (s) where appropriate. Thank you

SECTION A: Socio-demographic Characteristics

1. Sex a. Male [ ] b. Female [ ]
2. Age a. 12-13 [ ] b. 14-15 [ ] c. 16-17 [ ] d. 18-19 [ ]
3. Religious Affiliation a. Pentecostal/Charismatic [] b. Catholic [] c. Protestant [] d. No Religion [ ] e. Muslim [ ] f. Other (please specify)……
4. Educational Level a. JHS 1[ ] b. JHS 2 [ ] c. JHS 3 [ ]
5. Tribe .....

6. Relationship Status a. Single [ ] b. Dating [ ] c. Broken-hearted [ ] d. Never dated [ ] e. Other (please specify)……

7. Living Arrangement a. Father [ ] b. Mother [ ] c. Both parents []d. Other (please specify)…….

8. Number of siblings……

9. Educational level of parent (s) /guardian (s) (Select from this; Primary, Secondary, Tertiary, None, Other level, specify). a. Father……..... b. Mother……..…….. c. Other specify……..……

10. Occupation of parent (s)/guardian (s) a. Father……..... b. Mother……..…….. c. Other specify……..……

Section B: Knowledge on Adolescents' Sexual and Reproductive Health

11. Have you heard of adolescent sexual and reproductive health? a. Yes [ ] No [ ]

    i. If yes, how do you understand adolescent sexual and reproductive health?

    ii. If no, how do you understand sexual health? ……

12. Have you ever had sexual intercourse? a. Yes [ ] b. No [ ]

    If yes:

    i. What age did you first have sexual intercourse? ……

    ii. Whom did you have sex with? .....

    iii. Were you in the relationship with him/her? a. Yes [ ] b. No [ ]

    iv. Was it….. a. Voluntary [ ] b. Forced/Abused [ ] c. other specify……..

    v. Why did you have sexual intercourse with him/her? A. Food [ ] b. Money [ ] c. Protection [ ] d. Others, specify

vi. Was your intention/reason satisfied afterward? a. Yes [ ] b. No [ ] c. Other specify…….

If no:

vii. Have you thought of having sexual intercourse? Yes [ ] No [ ]

viii. What age would you like to have sexual intercourse? …….

ix. Do you know any of your friends who has ever had sexual intercourse? Yes [ ] No [ ]

If Yes,

x. At what age did your friend have his/her first sexual intercourse? ……

xi. Was your friend in a relationship with the person he/she had sexual intercourse with? Yes [ ] No [ ]

xii. Was it...

a. Voluntary
b. Forced/Abused
c. Other

If no,

xiii. Are the adolescents in the community having sex?

a. Yes [ ] b. No [ ]

If Yes,

xiv. At what age do adolescent boys start having sex? ……

xv. What about adolescent girls? ……

xvi. Who are their partners? a. Age/School/Class mates b. older men/women c. Other

xvii. What kind of sexual activity do adolescents engage in? a. Voluntary [ ] b. Forced/Abused [ ] c. Tricked or Persuaded [ ] d. Other [ ]

xviii. Have their partners changed over a period of time? a. Yes b. No [ ] c. No idea [ ]

xix. Why do adolescents in the community have sex? a. Food [ ] b. money [ ] c. protection [ ] d. other [ ]

13. What do you think rape is? .....

i. Have you seen or heard any adolescent been raped? a. Yes [ ] b. No [ ]

ii. If an adolescent is raped, will he/she tell to anyone? a. Yes [ ] b. No [ ] c. Maybe [ ]

If Yes,

iii. Whom will s/he tell? a. friends [ ] b. Parent(s)/Guardian(s) [] c. Teacher [] d. Religious leader (s) [] e. Community leader (s) [] f. health worker [] g. Other, specify……

If No,

iv. Why not?

.....

v. If an adolescent is raped, will he/she report to anyone? a. Yes [ ] b. No [ ] c. Maybe [ ]

If yes,

vi. Whom will s/he report to? a. Parent(s)/Guardian(s) [ ] b. Teacher [ ] c. Religious leader d. Community leader [ ] e. Police [ ] f. Other [ ]

If no,

vii. Why not?

……..

viii. If an adolescent is raped, will s/he go to anyone for help? a. Yes [ ] b. No [ ] c. Maybe [ ]

If Yes,

ix. Whom will s/he go to? a. Health Worker [ ] b. Parent(s)/Guardian(s) [ ] c. Teacher [ ] d. Religious Leader [ ] e. Community leader [ ] f. Other specify …….

If no,

x. Why not? ……

14. Do adolescents have the right to decide whom, when and where to have sexual intercourse? a. Yes [ ] b. No [ ]

If yes,

i. Why do you think you have the right to? ……

If no,

ii. Why not? ……..

15. Have you ever heard of contraceptives? a. Yes b. No

If yes,

iii. What do you know about contraceptives? ……

If no,

iv. What are condoms and oral contraceptives (pills) used for? ……

v. Have you ever used contraceptives? a. Yes [ ] b. No [ ]

If yes,

vi. What types of contraceptives did you use? a. Oral [ ] b. IUD [ ] c. Injectable [ ] d. Condoms [ ] e. other (specify) ……

16. Are you aware that one can get an infection through unprotected sexual intercourse? a. Yes [ ] b. No [ ]

If yes,

i. What are some of the infections? …….

If no,

ii. Have you heard of STI's/STD's? a. Yes [ ] No [ ]

If yes,

iii. Mention some of these infections/diseases

iv. Do you think adolescents in this community are at risk of getting HIV & AIDS? a. Yes [ ] b. No [ ]

Explain your answer ……

17. Are you aware of teenage pregnancy? a. Yes [ ] b. No [ ]

i. Is teenage pregnancy common in this community? a. Yes [ ] b. No [ ]

ii. Can a girl get pregnant the first time she has sex? a. Yes [ ] b. No [ ] c. Maybe [ ]

iii. Can a girl get pregnant if she has sex only once? a. Yes [ ] b. No [ ] c. Maybe []

iv. What are some of the influences that can lead adolescents in this community to become pregnant? ……

v. What are some of the influences that prevent adolescents in this community from becoming pregnant? (Cultural norms and

values, parental care, community health services, religious beliefs, education, others) ……

18. Do you know anything about abortion? a. Yes [ ] b. No [ ]

If yes,

i. What do you know about it? …….

ii. Any side effects? ……

iii. Do girls have the right to abort pregnancies? a. Yes [ ] b. No [ ]

iv. Do girls in this community abort pregnancies? a. Yes [ ] b. No [ ]

Section C: Sources of Information on Adolescent Sexual and Reproductive Health

19. Is there a place in your community where adolescents visit to talk and find out about their sexual and reproductive health issues like relationships, sex, puberty/menstruation, pregnancy, family planning and abortion, rape, STIs, HIV/AIDS, marriage, female genital mutilation etc.? a. Yes [ ] b. No [ ]

20. Where **can** adolescents get information about sexual and reproductive health? a. Home [ ] b. Media, like TV, radio, magazines, internet, etc. [ ] c. Church/Mosque [ ] d. School [ ] e. Community [ ] f. Health centre [ ] g. Other, specify……

21. Where **do** adolescents get information about sexual and reproductive health? a. Home [] b. Media [ ] c. Church/Mosque [ ] d. School [ ] e. Community [ ] f. Health centre [ ] g. Other, specify……

22. How useful are the information received from these sources? a. Not useful [ ] Useful [ ] c. Very useful [ ]

23. Whom do adolescents get information about sexual and reproductive health from? a. Peers [ ] b. Teachers [ ] c. Health personnel [ ] d. Parent(s)/guardian(s) [ ] e. Religious leaders [ ] f. Older siblings [ ] g. Community leaders [ ] h. Other, specify……..
24. Which sexual and reproductive health issue do you like discussing? .....
25. Which person do you usually discuss your sexual and reproductive health issues with? ……. /……/and……
26. How do you feel while/when discussing sexual and reproductive health issues with such a person? a. Comfortable [ ] b. Uncomfortable [ ] c. Happy [ ] d. Shy [ ] e. Other feeling, specify……..

Section D: Perceptions on Sexual and Reproductive Health

27. Do you think a girl is ready for sex when she starts menstruating? a. Yes [ ] b. No [ ]
28. At what age do you think an adolescent is due/ready to have sexual intercourse? .....
29. At what age do you think an adolescent is due/ready to marry? .....
30. At what age do you think an adolescent is due/ready to have children? .....
31. Do adolescents have the right to decide the number of children to bear? a. Yes [ ] b. No []
32. What is your perception on family planning (e.g. condoms, pills, etc.)? ……..……

33. How do you see adolescents who patronize family planning services?

……

……

34. Do you think patronizing family planning services prevents pregnancy?

a. Yes [ ] b. No [ ] c. Somehow [ ]

35. Do you think patronizing family planning services prevents STIs and HIV/AIDS?

a. Yes [ ] b. No [ ] c. Somehow [ ]

36. In what way (s) can one avoid or prevent STIs or HIV/AIDS?

……

37. What is your perception on health care providers?

……

……

38. What is your perception on health care facilities?

……

……

Section E: Sexual and Reproductive Health Needs of Adolescents

39. What do you think are the major sexual and reproductive health problems facing adolescents in this community?

……

40. Do adolescents have a place to turn to when faced with sexual or reproductive health problems like pregnancy, STIs, etc.? a. Yes [ ] b. No [ ]

If Yes, where? .....

- Is the facility useful? a. Yes [ ] b. No [ ] c. Somehow [ ] explain your answer…….

41. Is someone available to talk to adolescents on issues relating to sexual or reproductive health? a. Yes [ ] b. No [ ]

If yes, who is mostly available at the facility?

.....

- Is this person useful? a. Yes [ ] b. No [ ] c. Somehow [ ]

If No, why not? .....

- Do you see that to be a problem for adolescents? a. Yes [ ] b. No [ ] c. Somehow [ ]

42. Does your school provide you with information that helps you to meet your sexual and reproductive health needs? a. Yes [ ] b. No [ ]

If Yes,

- Briefly explain……..……

If No,

- Briefly explain what could be done……

43. Does your church/mosque provide you with information that help you to meet your sexual and reproductive health needs? a. Yes [ ] b. No [ ]

If Yes,

i. Briefly explain……..……

If No,

ii. Briefly explain what could be done……

44. Does your family provide you with information that help you to meet your sexual and reproductive health needs? a. Yes [ ] b. No [ ]

If Yes,

i. Briefly explain……...……

If No,

ii. Briefly explain what could be done……

45. Does the community provide you with information that help you to meet your sexual and reproductive health needs? a. Yes [ ] b. No [ ]

If Yes,

i. Briefly explain……...……

If No,

ii. Briefly explain what could be done……

46. Does your health centre provide you with information that help you to meet your sexual and reproductive health needs? a. Yes [ ] b. No [ ]

If Yes,

i. Briefly explain……...……

If No,

i. Briefly explain what could be done…….……

47. To the best of your knowledge, has something been done by the government, NGOs or other organisations to address sexual and reproductive health needs of adolescents in the community? a. Yes [ ] b. No [ ] please explain…….

48. Is there any additional information that you would like to share with me about sexual and reproductive health that are necessary for adolescents? .....……..

APPENDIX F

INFORMED CONSENT FORMS

UNDERSTANDING ADOLESCENTS' SEXUAL AND REPRODUCTIVE HEALTH NEEDS IN THE CAPE COAST METROPOLIS

NANCY ADWOA ADDAE

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY, UNIVERSITY OF CAPE COAST, CAPE COAST; GHANA

INFORMED CONSENT FORM FOR ADULT

PART I: INFORMATION SHEET

Title: [**Understanding Adolescents' Sexual and Reproductive Health Needs in the Cape Coast Metropolis]**

Principal Investigator: **[*Nancy Adwoa Addae*]**

Address**: [Department of Sociology and Anthropology, University of Cape Coast, Cape Coast; Ghana]**

General Information about Research

In trying to understand adolescents' sexual and reproductive health needs as a form of social research, the study objectives will be to; ascertain adolescents' knowledge of sexual and reproductive health, explore adolescents' perceptions of sexual and reproductive health and examine adolescents' sexual and reproductive health needs. It is believed that appreciating adolescents' personal, social and cultural perspectives is essential in addressing their health needs to empower them make informed decisions about their sexual behaviour. You are being invited to take part in this interview because your contribution will help

towards the success of this research project. If you accept to be in this study (participation is voluntary), your participation will last for about (30-75 minutes). Again, the study will comprise interviews, survey questionnaires and FGDs and questions related only to Adolescents' Sexual and Reproductive Health will be asked during the data collection. Hard copies of survey questionnaires will be distributed and thoroughly explained by myself at the school premises. I will further moderate interviews and FGDs at the preferred location of the participants. There will no form of coercion nor usage of names as ethical issues pertaining to confidentiality and anonymity will strictly be adhered to. Any shared information pertaining to the research will be not be shared with anyone else.

Procedures

To find answers to some of these questions, we invite you to take part in this research project. If you accept, you will be required to:

(The following applies only to focus group discussions) take part in a discussion with 7-8 other persons with similar experiences. This discussion will be moderated by myself.

(The following applies only to in-depth interviews) participate in an interview with myself.

(The following applies only to questionnaire surveys) fill out a survey which will be provided by myself and collected by myself.

You are being invited to take part in this discussion because we feel that your experience as a student, health care provider, SHEP coordinator, teacher, and parent/guardian and community/opinion leader can contribute much to this discussion).

Survey questionnaires will be distributed to in-school JHS adolescents between the ages of (12-19) to assess their knowledge, sources of information, perceptions, and sexual and reproductive health concerns besides accessibility as well as utilization of sexual and reproductive health services.

Group of parents/guardians from different ethnic groups, religion, educational level, marital status and occupation and further having children between the ages of (12-19) years will each be selected for focus group discussions in the study area to solicit information on perceived behaviours of adolescents, adolescents' sexual and reproductive health problems, contributing factors to these issues, major adolescents' sexual and reproductive health needs of (10-14) and (15-19) years, parents' attitude/perceptions towards adolescents' sexual and reproductive health programs (FP, contraception etc.), and sexual right issues (marriage, sexual intercourse, child birth).

Through discussions with experts (community/opinion leaders, teachers, SHEP coordinators, and health care providers), the researcher will gain rich information about the subject under study and perceptions of sexual and reproductive health due to the varying cultures displayed in the various communities. The assumption was that, such people have a unique cultural characteristic and social bases that deserve special consideration and attention so as to have a deeper understanding of their perspective on sexual and reproductive health programs and the major sexual and reproductive health needs of adolescents aged (10-14) and (15-19) years. This will enable a better understanding as to why some adolescents will prefer self -medication or the popular way of treatment to visiting a health center.

(***The following applies only to focus group discussions***) During this discussion, however, we do not wish you to tell us your personal experiences, but give us your opinion on the questions that we will pose to the group based on your personal experiences and your experience within your community. If you do not wish to answer any of the questions or take part in any part of the discussion, you may say so and keep quiet. The discussion will take place in the group's preferred serene environment of your choice, and no one else but the interviewer will be present, and no one else but the people who take part in the discussion and myself will be present during this discussion. The entire discussion will be tape-recorded, but **no-one will be identified by name on the tape**. Additionally, the tape will be kept securely in a locker and I will be the only person having access to the keys. The information recorded is considered confidential, and no one else except myself will have access to the tapes.

(***The following applies only to interviews***) If you do not wish to answer any of the questions posed during the interview, you may say so and the interviewer will move on to the next question. The interview will take place in the interviewee's preferred serene environment (office or any preferred location), and no one else but the interviewer will be present. The information recorded is considered confidential, and no one else except myself will have access to the information documented during your interview.

(***The following applies only to surveys***) If you do not wish to answer any of the questions included in the survey, you may skip them and move on to the next question. Hard copies of survey questionnaires will be personally distributed and collected by myself within the specified duration. The information recorded

is considered confidential, and no one else except myself will have access to your survey.

(***The following applies to all instruments***)

The expected duration of the discussion is about 45-75 minutes; interview is about 30-45 minutes and survey is about 40-75 minutes.

Possible Risks and Discomforts

There is no health risk associated with the research study should you decide to be a participant. Some of the questions however are a bit sensitive. If you do not wish to answer any of the questions included in the survey, FGDs or interview due to this sensitivity, you may skip or move on to the next question. I shall safeguard and guarantee a full level of confidentiality of information at the same time. The information retrieved or recorded is considered confidential and no one else except myself will have access to your survey. Similarly, this document contains no personal identification information, thereby assuring total anonymity of your participation in the research study.

Possible Benefits

It is expected that due to your participation, the research will result in providing adolescent-friendly sexual and reproductive health services to limit their exposure to sexual health risks of unintended pregnancies, HIV/AIDS and early sexual debut. This will consequently contribute to knowledge on public health and Adolescent Sexual and Reproductive Health education.

Confidentiality

The information that you will share with me will strictly be kept out of reach of other students and will not be known to the general public. Myself and some selected teachers will conduct the survey which will be used strictly for research

only. The report will take the form of collective responses and will not reveal names or any identifiers that may be linked back to the person who gave the information. Nor will anyone who is not directly involved in this research be allowed to access the information that we obtain from you. Your recorded responses on tape and questionnaires will not have any names or any information that could be used to trace your identity. This consent form will be kept separately from the research instrument and will be destroyed in a (1) year. The research instrument will be locked and will not be accessible by anyone but myself (principal investigator). The completed research instruments will be destroyed within a year after the study is completed. These will be destroyed using the paper shredder. Both the questionnaires, soft copies and recorded tapes will have no personal identification information whatsoever. We would like to re-assure you that the information you provide will not be shared to anyone except the researcher (Nancy Adwoa Addae) and will be strictly classified.

Compensation

You may not receive any compensation packages for your participation in this study, either cash or kind however, your participation will greatly be appreciated in the designing of adolescents' sexual and reproductive health package to curb sexual and reproductive health risks of unintended pregnancies and STDs.

Voluntary Participation and Right to Leave the Research

You are free to join this study and you can stop participating at any time if you feel uncomfortable without any penalty (SHEP Coordinators, teachers, health care providers, parents/guardians and community/opinion leaders). No one will be angry with you or punish you if you do not want to participate or stop

participating. Please talk about this study with your parents before you decide whether or not to participate. I will also ask permission from your parents before you are enrolled into the study. Even if your parents/guardian say "yes" you can still decide not to participate (adolescents below 18 years).

Contacts for Additional Information

You may ask me any questions about this study. You can call me at any time [Nancy Adwoa Addae] (Principal Investigator): +233545483298/+233506377619] or talk to me the next time you see me. You may also contact Dr. Eric Koka (Principal Supervisor): +233243374637/+233204073323.

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant you can contact the Administrator at the IRB Office between the hours of 8:00 am and 4:30 p.m. through the phones lines 0558093143/0508878309/0244207814 or email address: irb@ucc.edu.gh.

PART II: VOLUNTEER'S AGREEMENT

The above document describing the benefits, risks and procedures for the research title *"Understanding Adolescents' Sexual and Reproductive Health Needs in the Cape Coast Metropolis"* has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

Volunteer's Name: ……

Volunteer's Mark/Thumbprint……..……

Date: **……..…**

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

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

Witness's Name: ……..

Witness's Mark/Thumbprint: ……

Date: **……..……**

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

Researcher's Name: ……

Researcher's Signature: ……..……..….

Date: **……..……**

INFORMED CONSENT FORM FOR CHILD OR MINOR

PART I: INFORMATION SHEET

Introduction

My name is Nancy Adwoa Addae and I am a post-graduate student and the principal investigator, of the Department of Sociology and Anthropology, University of Cape Coast, Cape Coast; Ghana. I am conducting a research entitled "Understanding Adolescents Sexual and Reproductive Health Needs in the Cape Coast Metropolis". I am asking you to take part in this study because I am trying to learn more about I am asking you to take part in this study because I am trying to learn more about adolescent between the ages of 12-19 years in junior high school. Appreciating adolescents' personal, social and cultural perspectives is essential in addressing their health needs to empower them make informed decisions about their sexual behaviour. You are being invited to take part in this interview because your contributions as adolescents will help towards the success of this research project.

Procedure

If you accept to be in this study, you will be asked to participate and fill out a hard copies of survey questionnaires which will be personally distributed and collected by myself within a specified duration. If you accept to partake in this research study, questions related only to adolescents' sexual and reproductive health will be asked during the surveys in the completion of the survey. This will take (40-75 minutes). If you do not wish to answer any of the questions

included in the survey, you may skip them and move on to the next question. The information recorded is considered confidential, and no one else except myself will have access to your survey.

Possible Benefits

There are no direct compensations but it is expected that due to your participation, the research will result in providing adolescent-friendly sexual and reproductive health services to limit their exposure to sexual health risks of unintended pregnancies, HIV/AIDS and early sexual debut. This will consequently contribute to knowledge on public health and Adolescent Sexual and Reproductive.

Possible Risks and Discomforts

There is no health risk associated with the research study should you decide to partake in this interview. Some of the questions however are a bit sensitive. If you do not wish to answer any of the questions included in the survey or interview due to this sensitivity, you may skip and move on to the next question. I shall safeguard and guarantee a full level of confidentiality of information at the same time. The information recorded is considered confidential and no one else except myself will have access to your survey. Similarly, this document contains no personal identification information, thereby assuring total anonymity of your participation in the research study.

Voluntary Participation and Right to Leave the Research

You are free to join this study and you can stop participating at any time if you feel uncomfortable. No one will be angry with you or punish you if you do not want to participate or stop participating. Please talk about this study with your

parents before you decide whether or not to participate. I will also ask permission from your parents before you are enrolled into the study. Even if your parents/guardian say "yes" you can still decide not to participate.

Confidentiality

The information that you will share with me will strictly be kept out of reach of other students and will not be known to the general public. Myself and some selected teachers will conduct the survey which will be used strictly for research only. The survey will take the form of collective responses and will not reveal names or any identifiers that may be linked back to the person who gave the information. Nor will anyone who is not directly involved in this research be allowed to access the information that we obtain from you. Your recorded responses on tape and questionnaires will not have any names or any information that could be used to trace your identity. This consent form will be kept separately from the research instrument and will be destroyed within a (1) year. The research instrument will be locked and will not be accessible by anyone but myself (principal investigator). The completed research instruments will be destroyed within a year after the study is completed. These will be destroyed using the paper shredder. Both the questionnaires and soft copy will have no personal identification information whatsoever. I would like to re-assure you that the information you provide will not be shared with anyone except the researcher (Nancy Adwoa Addae) and will be strictly classified.

Contacts for Additional Information

You may ask me any questions about this study. You can call me at any time [Nancy Adwoa Addae] (Principal Investigator): +233545483298 /+233506377619] or talk to me the next time you see me. You may also contact Dr. Eric Koka (Principal Supervisor): +233243374637/+233204073323.

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant you can contact the Administrator at the IRB Office between the hours of 8:00 am and 4:30 p.m. through the phones lines 0558093143/0508878309 or email address: irb@ucc.edu.gh.

PART II: VOLUNTEER'S AGREEMENT

By making a mark or thumb printing below, it means that you understand and know the issues concerning this research study. If you do not want to participate in this study, please do not sign this assent form. You and your parents will be given a copy of this form after you have signed it.

The information which describes the benefits, risks and procedures for the research titled *understanding adolescents' sexual and reproductive health needs in the Cape Coast Metropolis* has been read and or explained to me. I have been given an opportunity to ask any questions about the research answered to my satisfaction. I agree to participate.

Child's Name:……

Child's Mark/Thumbprint……

Date:……

Witness for volunteer must sign here:

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

Witness's Name:……

Witness's Mark/Thumbprint……

Date: ……..……

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above volunteer in the presence of the witness *[name of witness]*.

Researcher's Name: ……..…….....

Researcher's Signature: ……

Date: ……