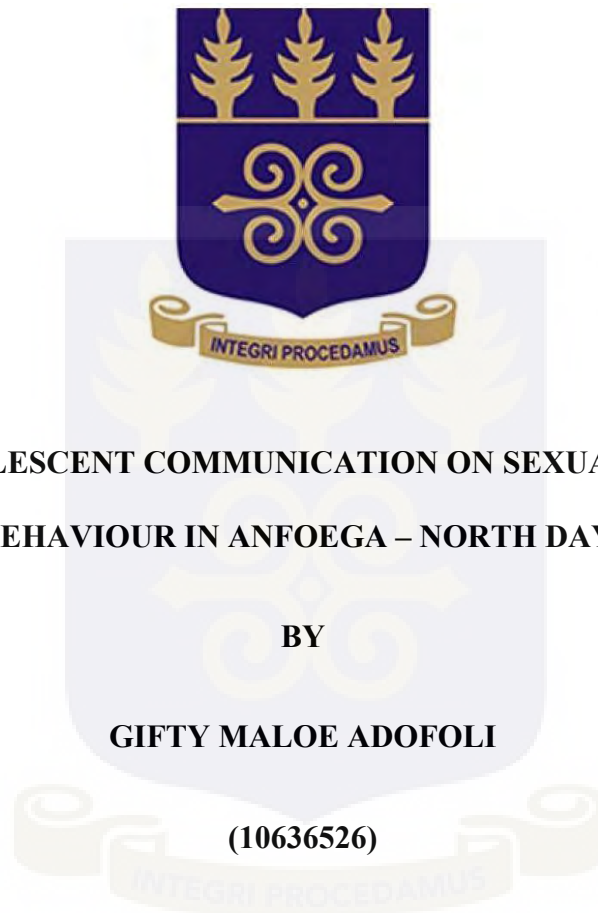


SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA



**PARENT – ADOLESCENT COMMUNICATION ON SEXUAL HEALTH AND
BEHAVIOUR IN ANFOEGA – NORTH DAYI**

BY

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**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON
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DECLARATION

I hereby declare that apart from people's knowledge that I have acknowledged, this research proposal is the result of my dedication and hard work under supervision by Dr Franklin Glozah.

I take full responsibility for this work.

.....

.....

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.....

.....

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(Supervisor)

DEDICATION

This work is dedicated to my husband Martin Tettey Nartey for his immense support and encouragement during the course of my study and to my son Earl Setri Nartey for the joy he brought.

ACKNOWLEDGEMENT

I wish to express my sincerest appreciation to Dr Franklin N. Glozah my supervisor for his time, patience, guidance and quick response throughout the preparation and completion of this dissertation.

My profound gratitude goes to the North Dayi District health directorate for granting me the opportunity to conduct this study and providing me with all the information needed.

To the young, vibrant and intelligent adolescents in Anfoega who took time off their busy schedules to partake in this study thank you.

To my parents, course mates, colleagues and friends I am grateful for your immeasurable support.

ABSTRACT

Background: Adolescents who are active sexually involve themselves in acts that are risky to their sexual health including an increasingly premature age of sexual growth, the absence of sex information, decreasing cultural and religious impacts, urbanisation and growing numbers of early marriages. The purpose of this study was to examine parent – adolescent communication on sexual health and behaviour in Anfoega in the North Dayi District of the Volta Region.

Methodology: A quantitative cross-sectional study design was used. A multistage sampling design which included proportionate sampling, systematic sampling and simple random sampling was employed to select 290 respondents for questionnaire completion. Descriptive and inferential statistical analysis was performed.

Results: The results showed that there is good receiving of sex education (46.2%) by adolescents from parents. The results also revealed that majority of the adolescents (60.3%) have knowledge of contraceptives and 85.91% of them know of condoms with only 4.1% claiming to have engaged in premarital sex. Most (32.4%) of the adolescents first heard of sex from their friends and 53.4% are influenced by their peers to engage in premarital sex. Finally, there was a statistically significant positive relationship between parent-adolescent communication and receiving of sex education.

Conclusion: Interventions such as capacity building, and taking responsibility for adolescent sex education are needed by the family, schools, government and the entire society in order to enhance parent adolescent communication on sexual health and behaviour.

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DEFINITION OF TERMS

The following definitions were used for the purposes of this study:

PARENT: A guardian of an adolescent.

ADOLESCENT: A person within the age bracket of 10 and 19.

COMMUNICATION: The exchanging of information from a person or group to another by speaking, writing or use of another medium.

PARENT-ADOLESCENT COMMUNICATION: A process through which beliefs, attitudes, values, expectations and knowledge are conveyed between parents and adolescents.

SEX EDUCATION: It is a process of providing adolescents with the information and skills needed to make informed decisions about their sexuality and reproductive health.

CONTRACEPTIVE: It is a device or drug use to prevent pregnancy.

SEXUAL BEHAVIOUR: It is the approach to the state of physical, mental and social well-being in relation to sex and sexual relationships as expressed through sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction.

SEX: It refers to the biological characteristics that define humans as female or male.

SEXUALITY: It is the way people experience and express themselves sexually.

CHAPTER ONE

INTRODUCTION

1.1 Background

The World Health Organisation (WHO) defines sex as the biological characteristics that distinguish a female or male. However, these sets of biological characteristics are not mutually exclusive, as there are individuals who possess both, they tend to distinguish humans as males and females.

Sexual behaviour, from the perspective of the WHO, is the approach to the states of physical, mental and social well-being with regards to sex and sexual relationships. It is a pivotal aspect of being human as life is made of sex, identification by gender and roles, sexual orientation, being erotic, intimacy, pleasure and reproduction. Sexual behaviour is practiced and expressed through the individual's thoughts, fantasies, beliefs, attitudes, desires, values, behaviours, roles, practices and relationships. However, not all of these dimensions are expressed and experienced. The interaction of biological, psychological, social, economic, political, cultural, legal, historical, religious and spiritual factors influences sexual behaviour (WHO, 2006).

Sex education has generally been believed to be as old as man and it exists in various forms in our various cultures and sub-cultures. Its foundation is rooted deeply in the sociology, psychology and ethical values existing in our traditional societies (Esuabana, 2017). However, our African traditional societies mostly regard sex as sacred, and as such it is treated with reverence. As Akpama (2013) has shown in his study, culture and religion prohibit adolescent's knowledge of matters relating to sex before marriage, Esuabana (2017) confirmed that sex education in some

primitive societies could not be considered culturally and socially permissible and acceptable to the extent which stops the youth from “sexual democracy” and permissiveness”.

Sex education is a system of learning about how an individual learns to be comfortable with all aspects of humanity (Ajuwon, 2005). According to Bridges and Hauser (2014), provision of information on sexual behaviour, sex, bodily development, relationships, alongside with the building of skills to help young people better communicate and to make informed decisions about their sexuality and their sexual health. Sexual health is a positive and respectful approach to sexual behaviour and sexual relationships since it entails having pleasurable and safe sexual experiences, free of coercion and discrimination, and violence (WHO, 2006).

According to Akpama (2013), adolescents’ sexual behaviour has now resulted in controversy between families, schools and the churches with each of these agents accusing each other. Parents believe that sex education is the responsibility of the school, the teachers, on the other hand, feel that it is the traditional responsibility of the parent to train children on sexual behaviour and sexual living. Sexual behaviour is an important part of an adolescent’s identity. The process of learning about sexual behaviour and accomplishing a good sexual health begins with childhood and continues throughout their lives. Curiosity about sexual health increases during adolescence and thus sex education must commence before the adolescent’s sexual initiation. Though parents and caregivers ought to be the primary sex educators of their children, adolescents also acquire sexual behaviour from other sources (FHI 360, 2013). These sources, if polluted, has the potential of exposing these young people to distorted information the dire consequences of which could lead to indelible imprints in their lives. However, it is the view of FHI 360 that sex education has the potential to help adolescents to correct misconceptions and myths that they might have acquired from unreliable medium or sources.

Esuabana (2017) remarked that: The school must be aware of the drastic changes in human sexual behaviour and its function to ensure that the right information is provided to learners at all levels of education. Parents are also obligated to acquaint themselves with the modern trends of sexual activities influencing their wards and must rise to the challenges of educating young people on sexual behaviour. She also observed that; the most universal and ideological basis for sex education is procreation. Negative and irresponsible attitude to sex has resulted in abortion, child abuse, child neglect, child abandonment, venereal disease, illegitimacy and unhappy family life. Others include school dropout, teenage pregnancy and armed robbery. This is not only sad but dangerous to modern life. Tradition imposes sanctions in the form of taboos among other restrictions which inhibit or regulate sex and sexual behaviour to the anguish of the youth and curious adults. Modern science and technology have over-exposed children to the experiences of sex and sexual behaviour.

Parents are one of the earliest and critical influences on the sexual development of children, thus they may be the most suitable source of the provision of sex information to their children due to extensive involvement in the lives of their children.

1.2 Problem Statement

Sex education plays a vibrant role in the reproductive and sexual health of adolescents. The responsibility for the provision of sex education lies on the shoulders of parents and schools. However, there exist diverse factors that can influence the quality of sex information available to adolescents with varying political and legal context that shapes sex education. As they mature,

adolescents face important decisions about their relationships, sexual behaviour and decision-making that can impact their sexual health and general well-being for the rest of their lives.

According to Burgress *et al.* (2005), effective communication regarding sexuality has the tendency to limit adolescent risky sexual behaviours when joined with effective parent-adolescent communication in relation to the adolescent's sexuality issues. Adolescents usually involve themselves in sexual behaviours that are risky and can result in adverse health, social and economic outcomes. Parents and adolescents experience discomfort in talking about adolescent reproductive health and this can impede communication of effective reproductive health from happening (Bastien *et al.*, 2011).

Several studies on sexual behaviour in Africa have found that adolescents' sexual behaviours are always issues of contention between families, schools and churches with each of them accusing each other (Esuabana, 2017). Perception of parents of the teaching of sex education has been examined to be significantly negative and this strong parental resentment to the teaching of sexual health is due to the strong inclination to religious teachings and culture by parents as they are of the belief that they were inherited from their fore parents (Akpana, 2013). While parental and societal resentments to sex education seem not to be compromised over time, there seems to be a resultant overlooking of young people as they receive little or no reproductive health care and education (Nyarko *et al.*, 2014). Klemp, Moore and Moore (2003) have listed some consequences of poor sex education as HIV/AIDS, teenage pregnancy, teen abortion, overpopulation, high illiteracy, and poverty.

The Volta Region was one of the two regions in Ghana that recorded a high prevalence of teenage pregnancy in 2016, accounting for 15.5% of all adolescent pregnancies in the country (Wilson,

Ameme and Ilesanmi, 2017). The North Dayi district with Anfoega as its capital recorded an average of 8.5% of the teenage population getting pregnant as of 2010 (GSS, 2014). This means that at least 8 out of 100 teenagers in the North Dayi district got pregnant during this period. The unrecorded pregnancy cases may even be greater as large sections of the population are in rural communities. There are limited documented records of other reproductive health consequences like abortion rate, STI transmission, for the North Dayi District.

According to Barnes and Olson (1985), although several factors were identified as contributions to problems of risky sexual behaviour, effective parent-adolescent sex communication has been identified as the critical strategy in reducing these risky sexual behaviours by adolescents.

1.3 Research Questions

1. What are the characteristics of adolescents' knowledge on sexual health in Anfoega?
2. What proportion of adolescents receive sex education from their parents in Anfoega?
3. What is the relationship between parent-adolescent communication on sex education and the receiving of sex education in Anfoega?

1.4 Objectives of the Study

1.4.1 Main Objective

The main objective of the study is to examine parent-adolescent communication on sexual health and behaviour in Anfoega in the North Dayi District of the Volta Region.

1.4.2 Specific objectives

1. To characterize adolescents' knowledge on sexual health in Anfoega.
2. To identify the proportion of adolescents that receive sex education from their parents in Anfoega.
3. To determine the relationship between parent-adolescent communication on sex education and receiving of sex education in Anfoega.

1.5 Theoretical Framework

The theoretical framework for this study is adopted from the Theory of Planned Behaviour (Munro *et al.*, 2007). The theoretical framework shows how the variables affect sexual behaviour among adolescents. This is partly based on the reason for the negative perception of parents towards sex education (Esuabana, 2017). There was a claim that the recent upsurge in considering sex more as a means of gratifying the body than of raising offspring has led to diverse social problems such as misuse of contraceptives, unwanted pregnancies, abortion, child abandonment, child neglect, child abuse, illegitimacy, among others. These social vices sometimes stem from the fact that the adolescent initiates sexual behaviour without understanding the meaning of sex and its implications. It was however noted that this situation is hardly surprising because, in many traditional societies, sex is rightly associated with the origin of life. And since life was regarded as sacred, its sexual origins tended to be regarded with a certain awe and reverence.

Also, African parents traditionally believe that the best way to prevent risky sexual behaviour among adolescents is by keeping them in complete ignorance of sexual issues.

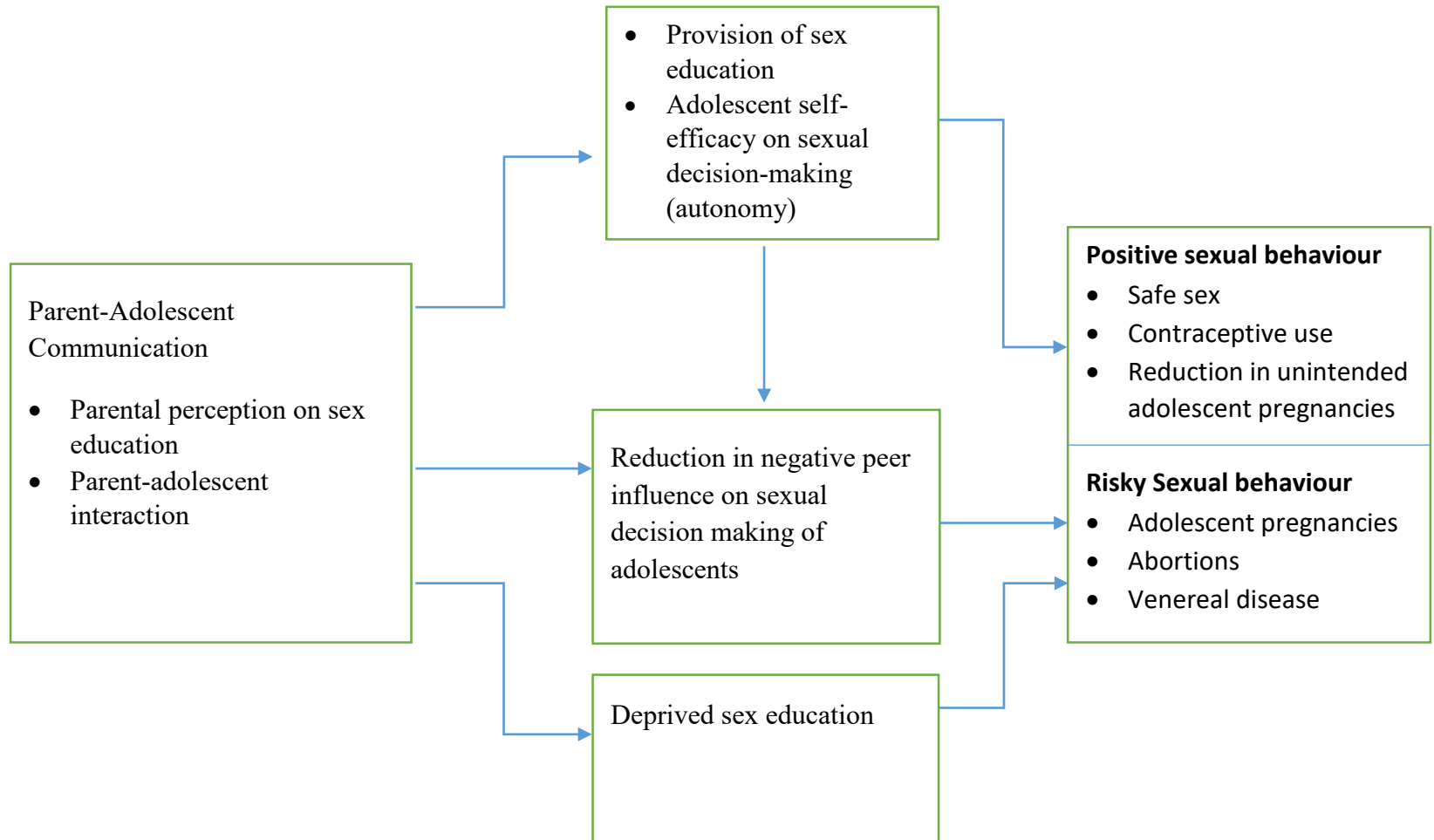
Furthermore, it was also noted that sex education is often constrained to urban settlements because of strict resistance to the programmes in rural communities. Even in urban areas, sex education is hardly given a priority among educators. This is because sex is perceived as a sacred practice, which must not be discussed in the open particularly among adolescents. This is hardly surprising since most culture, due to the strong adherence to deities, while others believe that sexual discussion is against their gods and as such, they try to avoid sex education.

This study focused on parent adolescent communication on sexual health and behaviour because it is the researcher's belief that the effects of parental influence on sex education by far outweigh that of the other factors where young people are concerned.

1.6 Conceptual Framework

The conceptual framework indicates that among the many possible factors that affect sexual behaviour, parent-adolescent communication is critical. The perceptions of parents on sex education provision to adolescents will lead to either positive or risky sexual behaviours. However, parent-adolescent communication encapsulates the many minor factors captured in many types of research in related areas. This study seeks to explicitly examine parents as an influence on sex education.

Figure 1: Conceptual framework on factors affecting adolescents' sexual behaviour



Source: Student Author (2017)

1.7 Justification for the Study

Reproduction related health problems are on the rise in the North Dayi district and in Ghana as a whole as at 2010 (GSS, 2014). This assertion is supported by empirical research on sex education and their reproductive health consequences. Several studies carried out in this area of influences on adolescent behaviour, like Kumi-Kyereme *et al.* (2014) and Decat *et al* (2015), looked at the holistic influences of social factors on sex education but much more is still needed most especially in the assessment of individualistic societal factors such as the influences of parents on sex education and sexual behaviours. This study would contribute to literature by examining the factors that affect the parental provision of sex education and its reproductive health consequences on teenagers. Finally, this study would support stakeholders in examining parent-adolescent communication on sexual health behaviours among adolescents. This work would also serve as a guide in helping the adolescent to develop a more mature and responsible behaviour towards sex-related activities.

1.8 Organisation of the Study

This study is organised into six chapters. Chapter one is made of the background to the study, statement of the problem, the research questions, objectives of the study, the theoretical framework, the conceptual framework, justification for the study and organisation of the study. Chapter two reviews relevant literature related to the study. Chapter three describes the study design, target population, sampling procedure, sample size, the research instrument used, data and sources, data processing and analysis, and the ethical issues arising from the research. Chapter four presents the results of the study while chapter five provides the discussions study results. Chapter six comprises of conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

INTRODUCTION

This chapter first presents the sexual knowledge characteristics of adolescents followed by the identification of the proportion of adolescents that receive sex education from their parents in Anfoega. It finally looks at the relationship between parent-adolescent communication on sex education and receiving of sex education in Anfoega.

2.1 Sex Education

Ajuwon (2005) describes sex education as a process of acquiring knowledge about the capability of an individual to be comfortable with all aspects of humanity. Sex education is also the process of the provision of information, skills and services for the adoption of safe sexual behaviours by people. These behaviours include abstinence and non-penetrative sexual activities such as holding hands, hugging, and consistent safe use of condoms. The Sex Information and Education Council of the U.S (SIECUS) defines sex education as the continuous consistent process in laying a strong foundation for sexual health through the acquisition of information and attitude formation, and the development of beliefs and values about identity, and relationships, including intimacy.

For people to be healthy sexually, it is essential to provide them with knowledge and information through sexual health education. In ensuring that adolescents learn and adopt sexual behaviours that are safe and healthy, for the mitigation of risk and vulnerability to poor sexual health (such as unplanned pregnancies, abortions, etc.), the right sexual education needs to be provided (WHO, 2010).

According to Bridges and Hauser (2014), sex education must comprise of puberty and reproduction information, abstinence, contraception, relationships, sexual violence prevention, body image, gender identity and sexual orientation and it ought to be taught by trained teachers. Furthermore, the sex education schedule or curricula must be informed by empirical evidence of what works best and the respect of the adolescents' right to complete must be factored into the designing of the schedule or curricula.

Ayuk and Achu (2014) describe sex education as the empowerment of young people to negotiate in their relationships so as to minimise early or unplanned parenting, reduction in risky sexual behaviours, and building of confidence, as well as the significance to take the decision from an informed position. This assertion by Ayuk and Achu (2014) explained that sex education must involve learning about the sexuality of humans like the development of the understanding of mental, physical, social, psychological and economic phases of human relations as they affect the adolescents' existence.

Bridges and Hauser (2014) highlighted the importance of sex education to young people to include:

- Avoidance of negative health consequences like unintended pregnancy, STI, etc.
- Communication about sexuality and sexual empowerment by parents, friends, etc.
- Delay in sexual debut
- Understanding healthy and responsible relationships
- Understanding of autonomy over individual bodies
- Respect for the right of others' autonomy of their bodies
- Exhibition of respect for all people
- Protection of academic success

2.2 Adolescent Sexual Behaviour

Sexual behaviour, according to Brian *et al.* (2016), is the expression and experience of human sexuality. In other words, it involves any act that induces sexual arousal. The human sexual behaviour is a function of inherited sexual response pattern as well as the impact the externalities exerted by the society on the individual (Brian *et al.*, 2016). Behaviours like the engagement of multiple sex partners, having unprotected sex; the use of unhealthy contraception and inconsistent contraception use were identified by Brian *et al.* (2016) as risky sexual behaviours. According to Emma-Slaymaker (2009), some implications of risky sexual behaviours include sexually transmitted infections or diseases, unplanned pregnancies and psychosocial implications of sexual violence.

According to Kourtis *et al.* (2006), the adolescence period is an interim phase of growth beyond childhood but before adulthood. At this developmental and biological susceptible period, most adolescents are involved in the unwholesome sexual behaviours, which make them prone to undesirable health consequences than adults. Although curiosity and experimentation are expected among adolescents, sexual behaviour places a higher risk of undesirable consequences including pregnancy and sexually transmitted diseases (Luwaga, 2004). In the views of Martin *et al.* (2002), adolescence marks a time of increased responsibility and challenge of previously established freedoms. It marks the developmental stages of increased likelihood of engaging in sexual activity, substance use, and risk-taking behaviours as a youth began to explore their own self-identities and test limits with authority figures.

Falaye (2004) reported that premarital sexual deeds of adolescents are becoming an issue of health and social distress since sexually active adolescents are involved in activities that pose risks to their sexual health. Falaye (2004) further suggested that there is the existence of factors that influence the early commencement of sexual behaviours of adolescents in developing countries. They include the increasingly early age of sexual initiation, lack of knowledge about sexuality, the decline in culturally-backed and religious influences, rapid urbanisation and adoption of alien societal values as well as and the increase in the numbers of early marriages. However, sex education aids to prepare adolescents to have a good sexual life and attitude (Bhan *et al*, 2005).

2.3 Sex Education and Sexual Behaviour

Sex education, according to Mueller *et al.* (2007), is intended to make available the information and skills needed to make informed decisions about their sexuality to adolescents since adolescents have a great need for accurate and reliable information about their sexuality, these include the physical changes that are taking place within them and the changes that take place in human relationships at this stage.

The relationship between sex education level and sexual health outcomes has been well documented. One of the efficient ways of improving sexual health is through the commitment to the sufficient education of adolescents so as to make healthy decisions about their sexuality (WHO, 2010).

According to Kwankye *et al.* (2015), sex education has been reported to be associated with behavioural changes such as engaging in safer sex practices. Furthermore, Kaye *et al.* (2009) also reported that adolescents who are provided with information and counselling were able to delay

the age of sexual initiation, prevent early family formation and sexually transmitted infections. Mueller and Kulkarni (2008) has postulated that educating adolescents on sex has an association with an increase for promoting consistent condom, as well as effective contraception for those who are sexually active and Lindberg and Maddow-Zimet (2012), also revealed that adolescents who were engaged in the United States Healthy People goal 2020 sex education package for its component to promote responsible sexual behaviour especially among adolescent include providing information on abstinence, family planning and relationships had been observed to have led to more responsible behaviour. Although there are criticisms against adolescent sex education in that people believe it has the ability to increase sexual behaviour amongst young people, there are continued indications of sex education positively reducing adolescent sexual activity.

The proportion of adolescents that receive sex education from their parents

2.4 Parents as a source of Sex Education

According to Esuabana (2017) parents in our African traditional settings, believe that the best way to prevent sexual immorality among youths is by keeping them in complete ignorance of sexual issues. As it was, children obeyed their parents' instructions and both boys and girls cherished chastity. It was a common feature for both the bride and bridegroom to be ignorant about sex until their marriage although there were some exceptions. However, Brocato and Dwamena-Aboagye (2008) revealed that a culture of silence had been created due to a parent-adolescent communication gap in the home and it accounts for the basis for the punishment of children for misbehaviours and lacked the right question parents. Nganda (2004) also revealed that a key reason why parents have abdicated their role in their teen's sex education in recent times is due to the

belief that schools and teachers have replaced the parent in imparting this education since the impact of the adult mentor cannot be overestimated. Nganda (2004) also concedes that in most studies, children have consistently ranked their parents as one of their primary sources of information on sexual behaviour issues since that adult-child communication can minimise risky sexual behaviour.

Perrino *et al.* (2000) noted that parents are among the earliest and most important influencers on sexual development of their children as well as their socialisation. Now, that children have early sexual initiation, it is imperative that parents begin to early childhood sex education so as to aid their children in making deliberate decisions about their sexuality. Perrino *et al.* (2000) report then that, parents are the most ideal influencers of their children acquisition of sex education.

In the view of Ayuk and Achu (2013), parents must be the primary influencers on their children's sex education and should be responsible for the communication of specific values about sexuality to their children. They asserted that parents need to initiate the conversation about sex and sexual behaviour with their adolescents. Parents are therefore encouraged to use everyday situations and occurrences like the watching movies to initiate a conversation about sexuality and must be circumspect so as to know the point to stop when it is necessary. In the views of Ogunlaja *et al.* (2016), matters of sexual health and sexuality should be taken with so much seriousness as demanded. Parents are mandated the significant role to play in the sexual health of their children since the overall finding of their study stressed the importance of parents' communication, their socioeconomic status and the role these factors play in the education of their adolescents on sexual health. Nnebue *et al.* (2016) also reported an association with age, staying with parents, living with one parent and low socioeconomic status of parents.

The relationship between parent-adolescent communication on sex education and receiving of sex education.

2.5 Parent-Adolescent Communication

Jerman and Constantine (2010) define parent-adolescent communication as the process through which values, beliefs, expectations, attitudes and knowledge are carried from parents to their children. In their view, parents have the opportunity to communicate with their children on a daily basis, as such they are considered a critical influencer or role player in their children's sexuality development.

Many researchers have associated parent-adolescent communication with a reduction in adolescent risky sexual behaviour as reported by Markham *et al.*, (2010) that adolescents who have a cordial relationship with their parents and have trust in their parent-child relationship are more likely to have better parent-adolescent sexual communication. Eisenberg *et al.*, (2006) stated that parents are pivotal to the socialisation of adolescents into sexually-healthy adults. Furthermore, Shtarkshall *et al.*, (2007) reported that adolescents often refer to their parents as their desired source of sex education, active participation of parents is encouraged in their children's sexual socialisation.

Esuabana (2017) noted that parents' attitudes and beliefs form a basic foundation for the values of their adolescents. Although there is limited direct communication between parents and adolescents about sexuality in many families, parents are sources of guidelines for adolescents as they both, directly and indirectly, transfer their standards of healthy conduct during the socialisation process.

Simons and Conger (2007) also revealed that communication between parents and their children is important to understand that the overall tone or quality of the relationship between the parents and their adolescents strongly influences the quality of their parent-adolescent communication. In other words, parent-adolescent communication does not exist independent of other parenting behaviours and the parent-adolescent relationship. In order to produce a good communication between parent and adolescent warmth and involvement are necessary.

2.6 Parent-Adolescent Communication and Sexual Behaviour

Parent-adolescent communication about sex and sexuality concerns, according to Ayele *et al.* (2016), is still a controversial issue in many African countries as the societal values in many traditional communities has limitations on such communication. This results in adolescents feeling not connected to their homes and family, thus they end up getting involved in activities that put their sexual health at risk. Religious beliefs and acculturation differences between parents and adolescents may serve as a barrier to communication.

According to Wang (2000), mothers found it embarrassing to talk to their daughters about sex education hence they are reluctant. Though gender disparities are critical in parent-adolescent communications, the father and mother may possibly have impacts on the adolescents' sexual behaviours.

Boyas *et al.* (2012) reported that the effects of parenting communication can influence future adolescent health behaviours and choices. Parent-adolescent communication is critical to creating and maintaining a positive bond that will affect the long-term well-being of adolescents. It is the

quality and the frequency of communication that positively impacts youth as demonstrated in studies that examined adolescent sexual health.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter discusses the various methods and techniques that were employed in this study. It addresses issues concerned with the research design, study area, the study variables, the study population, sample size, sampling method, data collection techniques, ethical issues, data processing and analysis. The chapter also includes the challenges that were encountered on the field during the research.

3.2 Study Design

A cross-sectional study design was used in this research to establish the relationship between parent-adolescent communications on sex education. Questionnaires were completed by adolescents during the study.

3.3 Study Area

Anfoega is the capital of the North Dayi District in the Volta Region. The district was established by Legislative Instrument (L.I.) 2076 of 2012 after it was carved out of the then Kpando District. The District lies within latitudes 6^o 20'N and 7^o 05'N, and Longitude 0^o 17'E. It shares boundaries with Kpando Municipality to the north, South Dayi District to the south, and the newly created Afadzato South District to the east. The Volta Lake which stretches over 80km of the coastal line demarcates the western boundary of the district. The district covers a total land area of 462.8 square kilometres with almost 30 per cent of the land being submerged by the Volta Lake. The most

conspicuous physical features of the district are the Akwapim-Togo-Atakora ranges which are at the eastern corridor between Ho and Kpando Districts. The district is dotted with scattered hills and ranges of varied length and height resulting in an undulating feature of the district. According to the 2010 population census, the population of North Dayi District is 39,913 representing 1.9 per cent of the region's total population. Females constitute 53.3 per cent and males represent 46.7 per cent. The district has a sex ratio of 88 males per 100 females. The population of the district is youthful (36.4%) depicting a broad base population pyramid which tapers off with a fairly small number of elderly persons (13.5%) who are 60 years and older. The communities under Anfoega traditional area, namely Anfoega Adame, Anfoega Dzana, Anfoega Akukorme, Anfoega Gblenkor, Anfoega Wuve, Anfoega Tokome and Wadamaxe had a total population of 8845 persons. Details as captured in Tables 1 and 2 show 1,888 households and 1,687 adolescents as at the 2010 PHC.

Table 1: Population by sex, number of households and houses in Anfoega

Sn	Community Name	Sex			Households	Houses
		Total	Male	Female		
1	Anfoega Adame	2,260	981	1,279	597	382
2	Anfoega Dzana	1,309	564	745	302	263
3	Anfoega Akukorme	1,290	557	733	320	272
4	Anfoega Gblenkor	1,154	505	649	231	214
5	Anfoega Wuve	926	405	521	217	183
6	Anfoega Tokome	752	323	429	221	162
7	Wadamaxe	1,154	560	594	348	238
	Total	8,845	3,895	4,950	2236	1,714

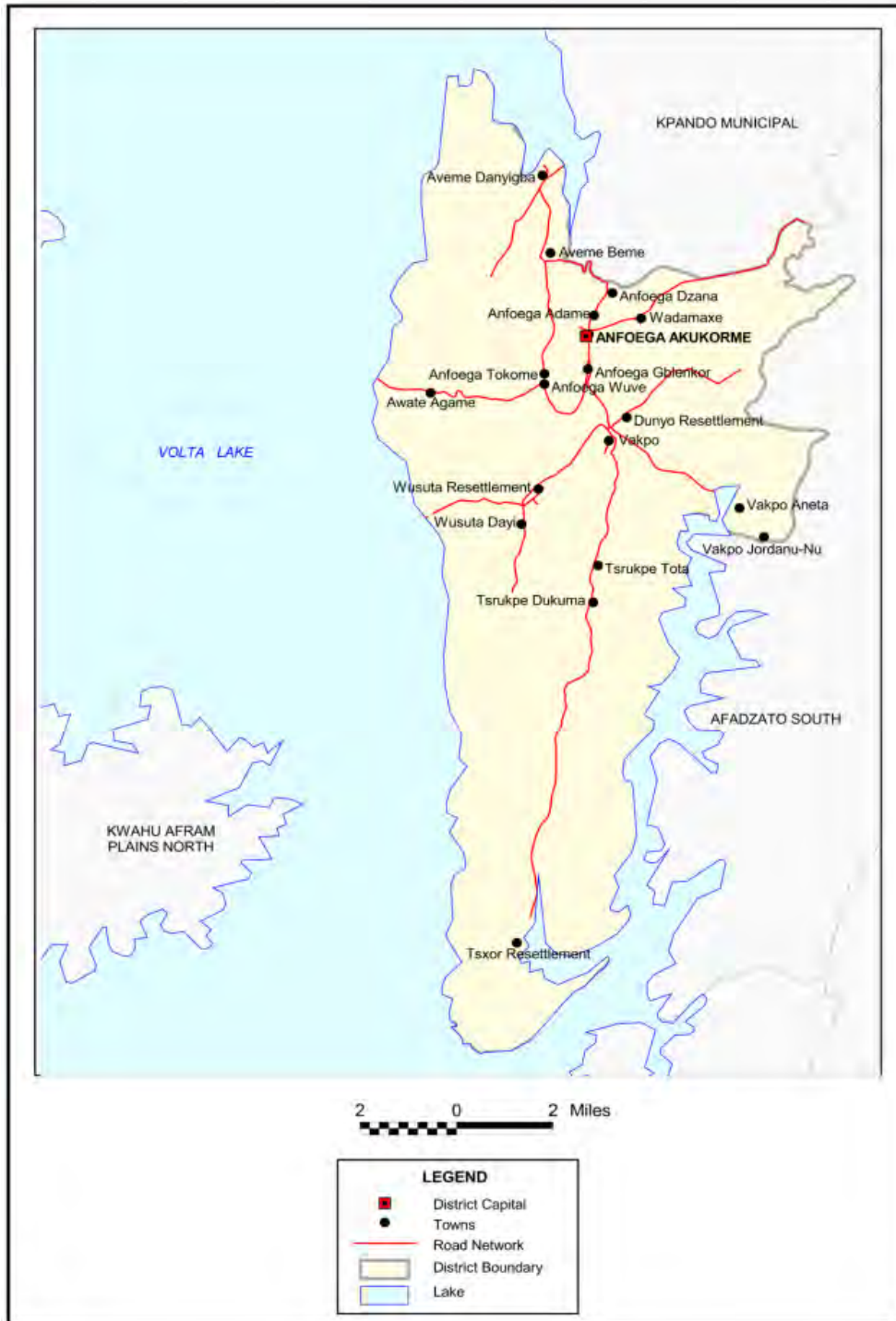
Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 2: Population by age group in Anfoega

	Community Name	Age Group			
		Total	0-9	10-19	20+
1	Anfoega Adame	2,260	544	526	1,190
2	Anfoega Dzana	1,309	280	294	735
3	Anfoega Akukorme	1,290	267	276	747
4	Anfoega Gblenkor	1,154	239	241	674
5	Anfoega Wuve	926	213	185	528
6	Anfoega Tokome	752	180	165	407
7	Wadamaxe	1,154	265	265	624
	Total	8,845	1,988	1,952	4,905

Source: Ghana Statistical Service, 2010 Population and Housing Census

Figure 2: Map of North Dayi District



Source: Ghana Statistical Services, GIS

3.4 Study Variables

3.4.1 Independent variables

- Educational level
- Religious background
- Socio-demographic characteristics; example age, gender,
- Knowledge and attitude on selected sexual and reproductive health issues
- Receiving of sex education
- Parent-adolescent communication on sex education

3.4.2 Dependent variable

- Parent-adolescent communication

3.5 Study population

The study involved adolescents (both males and females) between the ages of 10 and 19 years who are residents of Anfoega. Per the definition of WHO (2014), adolescents are within the age bracket of 10 and 19.

3.5.1 Inclusion criteria for cases

Male and female residents who are between the ages of 10 and 20 years, who are staying with a parent or guardian and who are residents of Anfoega. Respondents who agreed to be part of the study and give consent by signing the consent form were included in the study.

3.5.2 Exclusion criteria for cases

Male and female residents who are between the ages of 10 and 19 years, who are not staying with a parent or guardian but are residents of Anfoega were exempted from the study. Respondents who were not willing to be part of the study were also exempted from the study.

3.6 Sample Size

A sample size of 290 was used for the study. This sample was drawn from the population of adolescents in Anfoega.

3.6.1 Sample size determination

The sample size for this study was determined by adopting the formula by Smith (2013), putting the following factors into consideration:

- Desired confidence level in this study will be 95% (correspond Z-score is 1.96)
- An acceptable margin of error will be 5% with a standard value of 0.05
- Prevalence of teenage pregnancy is 0.22 (GDHS, 2014)

$$\begin{aligned}\text{Necessary Sample Size} &= [(Z\text{-score})^2 \times \text{StdDev} \times (1\text{-StdDev})] / (\text{Margin of error})^2 \\ &= [(1.96)^2 \times 0.22(1-0.22)] / (0.05)^2 \\ &= 264\end{aligned}$$

Necessary Sample Size = 264 respondents are needed

Factoring 10 per cent non-respondent rate the new sample size is 290.

3.7 Sampling method

A multistage sampling design was used for the study. The proportionate sampling method was used to allocate the number of respondents to be enrolled in the study in each community. A simple random sampling method was used to select four towns out of the seven towns in Anfoega. Anfoega Akukorme, Anfoega Adame, Anfoega Wuve and Anfoega Gblenkor were used for the study. Calculation of the number of respondents in each community is based on the proportion of the population of adolescents in the selected communities. That is, the population of adolescents per community divided by the sum of adolescents within the selected communities multiplied by the sample size. The sample size determined for each community was 65, 124, 44, and 57 for Anfoega Akukorme, Adame, Wuve and Gblenkor respectively. Systematic sampling methods were used to select houses for the study. At the community level, based on the population density, a sampling interval was developed for the houses to be randomly selected for the study. For example, in communities where the population is not dense, a sampling interval of every fourth house was used to select houses while a sampling interval of every third house was used in denser communities. The sampling interval was derived by dividing the number of houses per community by the number of respondents per community. The simple random sampling method was used to select households within houses. Simple random sampling was employed to select respondents. One respondent was selected from a household in the study area. Respondents in the selected households were interviewed; not more than one respondent per household. In households where there was more than one adolescent, one person who accepted to be part of the study was randomly selected through simple random technique, where papers with yes and no written on them were randomly picked. The one who picked yes was included in the study. In households where there

was no adolescent, a different household which was not part of the already chosen households was used.

3.8 Data collection tools

Structured questionnaires were used to collect data. The questionnaire had four subscales. The questionnaires covered questions on demographics such as age, sex, educational level among others. Multiple response options were used to measure knowledge of the sexual knowledge characteristics of adolescents. Two subscales had a Likert scale of measurements which covered questions on adolescent receiving of sex education, effects of parent-adolescent communication, and the perception of adolescents on the importance of sex education. Questions 20, 24 and 36 were reversed to check for acquiescence bias.

The Parent/Adolescent Communication Scale was developed to assess the quality of communication among adolescents and their parents regarding issues of sex and it contains two subscales. One subscale consists of 16 items for adolescents and 21 items, for a parent or guardians (Jaccard *et al.*, as cited in Wang, 2009). This study used the subscale for the adolescents. A five-point Likert scale with options (ranging from strongly disagree = 1 to strongly agree = 5) was used to indicate the range of their agreement with the items (e.g., “My parents only talk to me about sex when I am in trouble”). Scores ranged from 11 to 50. Some scores are reversed in value, high scores mean a low quality of communication and a low score means high quality of communication.

3.9 Data collection procedure

Self-administered questionnaires were given to respondents. However, the questions were read and filled for respondents who could not read and write after it has been explained in the local language (ewe). For participants who could read and write, the questionnaires were given to them to answer by themselves. The consent of the participants was sought before questionnaires were given. Participants were asked to sign or thumbprint on a well-written consent form after the study has been explained to them to agree to participate voluntarily. In situations where guardians were present for respondents who were below 18 years, the guardians signed and the adolescents assented before questionnaires were administered. After the questionnaires were answered and collected, participants were appreciated for their contribution and time.

3.10 Pre-testing

A pre-testing was carried out after the research assistants have been trained in data collection. It was conducted in Awate within the South Dayi district where the respondents had similar characteristics to those in the study area. After the pretesting, the questionnaires were reviewed and the necessary corrections were made before data was collected. The pretesting helped in testing the reliability and validity of the questionnaires. It also clarified the adequacy of the questions, estimated the approximate time for each questionnaire and helped in making the necessary corrections in the questionnaire for the actual study.

3.11 Data Processing and Analysis

The questionnaires at the end of administration were cross-checked for completeness. The data was entered and analysed quantitatively using Statistical Package for Social Sciences (SPSS) version 21. The data was sorted into the class of respondents, coded and cleaned to ensure the accuracy of information.

The descriptive statistical analysis was used to describe responses on sexual education being present or absent and it was computed using frequency tables. Mean was used to determine the composite response for parameters of receiving of sex education from parents by adolescents and effects of Parent-Adolescent Communication on sex education bivariate correlation analysis of key variables was run to determine all significant relationships.

3.12 Ethical consideration

Ethical clearance was obtained from Noguchi Memorial Institute for Medical Research IRB, CHS, and University of Ghana NMIMR-IRB CPN 066/17-18. Letters from the School of Public Health introducing the principal investigator were sent to the District Assembly.

3.12.1 Informed consent

All participants consented before they were recruited into the research. The participants were not forced or coerced to take part in the study. The whole study including the methodology, the benefit of the study, the harm involved and the voluntary aspect was made known to the participants to aid them in making informed decision to be part of the study.

3.12.2 Assent

Parents or Guardians for adolescents who are below 18 years were asked to give consent before the data was taken from the adolescents. The adolescents also assented before participating in the study. An informed written consent was used for both parents or guardians and the adolescents.

3.12.3 Confidentiality

Data collected was secured with a password and stored on the computer. A backed up was put on an external hard drive. Printed copies were secured in cabinets which could only be accessed by the principal investigator and the supervisor of the study. Participants were assured of the anonymity of their data, their names will not be published anywhere.

3.12.4 Privacy

During data collection, participants were excused to enable them to feel comfortable in filling out the questionnaire. However, those who could not read and write were reassured to feel comfortable in the presence of the researcher.

3.12.5 Compensation

Each participant was given an exercise book and pen after filling out the questionnaire.

3.13 Training of Data Collectors

Adolescent reproductive health issues are sensitive since adolescents are vulnerable. As a result, professionalism and skills must be employed during data collection so trained teachers from schools in Anfoega were recruited as data collectors. Prior to data collection, data collectors for the study were trained to equip them with the necessary knowledge and skills needed for data collection. Data collectors were taken through the techniques of data collection, ethical interaction

with human participants such as; the role of the data collector, importance of respect, voluntary participation, informed consent, vulnerable populations, personal privacy, protection of personal information and response to participant questions. Data collectors were taken through issues of data integrity which included respect for the science of the study, collecting, recording, and storing study data. With the role of the data collector, participants were made to know that the person who collects information on behalf of a research team is an “ambassador” for the study. Therefore, the data collector has the responsibility of making sure that the information collected for the study comes from individuals who understand what they are agreeing to do. Participants were made aware that each person who is part of the research team must show respect for: the goals of the research project, the individual study participant, the study area and the data collected that will help achieve the objectives of the research. In the area of voluntary participation, research assistants were made aware that no individual person is required to participate in a research project. If the study includes an informed consent process, then each person approached by a study team member has the right to refuse to hear about the study, and the right to refuse to join the study. Even if a person joins the study, he or she may refuse to answer specific questions in a survey or questionnaire and may decide to withdraw from a study at any time. Data collectors were taught how to conduct an interview, how to explain to the participant what the research is about, thanking the respondent and asking if they have questions at the end of the interview and the need to listen and show interest in what the respondent is saying during the interview.

CHAPTER FOUR

RESULTS

4.1 Objective One: Socio-demographic and Sexual knowledge characteristics of adolescents

Table 3 presents the age of adolescents in this study. From Table 3, the majority of the adolescents (87%) were between the ages of 13 to 18 while the rest (13%) were of the ages below 13 years and above 18 years. Also, a majority (53.4%) of the adolescents were males while the rest (46.6%) were females.

Table 3 also presents the highest level of education of adolescents. From the table, a majority of the adolescents (77.6%) had received Junior High School education. The rest, 21% and 1.4% of adolescents, had received primary and are under some sort of apprenticeship. With religious affiliation of adolescents, Table 3 presents the results where almost all adolescents (96.2%) claimed to be Christians while 2.1%, 1%, and 0.7% of the adolescents claimed to be traditionalists, Muslims, and other religious affiliates respectively.

Table 3 finally presents people who adolescents stay with. According to the results, a majority of adolescents (75.9%) stay with at least one biological parent. Specifically, the percentages of those who stay with both parents, mother only, and father only were 32.1%, 34.1%, and 9.7% respectively. With the rest, the percentages of those who stay with the relative, non-relative guardians, and partners were 16.6%, 6.9%, and 0.7% respectively.

Table 3: Socio-demographic Distribution

Age	Frequency	Percentage
10	3	1.0
11	6	2.1
12	19	6.6
13	51	17.4
14	49	16.9
15	49	16.9
16	43	14.8
17	38	13.1
18	23	7.9
19	9	3.1
Total	290	100.0
Sex		
Male	155	53.4
Female	134	46.6
Total	290	100.0
Religious Affiliation		
Christian	279	96.2
Muslim	3	1.0
Traditionalist	6	2.1
Others	2	0.7
Total	290	100.0
Educational Level		
Apprenticeship	4	1.4
Primary	61	21.0
JHS	225	77.6
Total	290	100.0
Guardian of Adolescents		
Both parents	95	32.8
Mother only	99	34.1
Father only	28	9.7
Relative	48	16.6
Non-relative guardian	20	6.9
Total	290	100.0

4.2 Knowledge and attitude on selected sexual and reproductive health issues

Table 4 presents the results of the test of knowledge of contraception by adolescents. The results as tabulated in Table 6 shows that a majority of adolescents (60.3%) responded in the affirmative.

With the test of knowledge of the types of contraception by adolescents, Table 4 presents the results of the types of contraception. From the table, the most commonly known contraceptives are condom use (known by 85.9% of adolescents), followed by Natural Family Planning (known by 57.6% of adolescents). The other known contraception options are Contraceptive injection, Contraceptive pills, Spermicide, Sterilisation and Intrauterine Device which were recorded to be known by 23.8%, 22.8%, 6.9%, 6.2% and 4.5% of adolescents respectively.

Table 4: Knowledge of contraception and types of contraception

Knowledge of contraception	Frequency	Percentage
Knowledge of contraceptive	175	60.3
No knowledge of contraceptive	115	39.7
Total	290	100.0
Types of Contraception		
Contraceptive pills	66	22.8
Condom	249	85.9
Intrauterine Device	13	4.5
Contraceptive injection	69	23.8
Spermicide	20	6.9
Sterilisation	18	6.2
Natural Family Planning	167	57.6

Table 5 presents the results of the test of knowledge of STIs by adolescents. The results as tabulated in Table 5 shows that a majority of adolescents (85.9%) responded in the affirmative.

With the test of knowledge of the types of STI by adolescents, Table 5 presents the results of the types of STI. From the table, the most commonly known STI is HIV/AIDS (known by 90.3% of

adolescents), followed by Gonorrhoea (known 68.3% of adolescents). The other known contraception options are syphilis, genital herpes, Chlamydia Trachomatis, and Human Papillomavirus Infection (HPV) which were recorded to be known by 48.6%, 8.3%, 7.6%, and 3.1% of adolescents respectively.

Table 5: Knowledge of STI and Types of STIs

Knowledge of STI	Frequency	Percentage
Knowledge of STI	249	85.9
No Knowledge of STI	41	14.1
Total	264	100.0
Types of STIs		
HIV/AIDS	262	90.3
Gonorrhoea	198	68.3
Syphilis	141	48.6
Genital Herpes	24	8.3
Chlamydia Trachomatis	22	7.6
Human Papillomavirus Infection	9	3.1

Table 6 presents the source of first sex information by adolescents. According to the results, the leading source of first sex information is friends as selected by 32.4% of adolescents. This was followed by school, a book, and the media as selected by 27.9%, 15.2%, and 11% of adolescents respectively. The table also presented parents as the least source of first sex information as selected by 11% of adolescents.

Table 6: Sources of First Sex Information

Sources	Frequency	Percentage
Parents	32	11.0
Friends	94	32.4
Media	39	13.4
School	81	27.9
A book	44	15.2
Total	290	100.0

Table 7 presents the responses of adolescents on the test of their acceptability of having sexual feelings as an adolescent. A half of adolescents responded in negative while 34.5% of adolescents responded in the affirmative. However, 15.5% of the adolescents didn't know the choice to make, thus they were indifferent to accepting on having sexual feelings as an adolescent.

Table 7 also presents the responses of adolescents on the test of their acceptability of engaging in pre-marital sex as an adolescent. 88.6% of adolescents responded in negative while 4.1% of adolescents responded in the affirmative. However, 7.3% of the adolescents didn't know the choice to make, thus they were indifferent to accepting on engaging in pre-marital sex as an adolescent.

Table 7: Acceptability of having sexual feelings and engaging in pre-marital sex as an adolescent

Responses for having sexual feelings	Frequency	Per cent
Yes	100	34.5
No	145	50.0
I don't know	45	15.5
Total	290	100.0

Responses for engaging in pre-marital sex	Frequency	Per cent
Yes	12	4.1
No	257	88.6
I don't know	21	7.3
Total	290	100.0

Table 8 represents the results of the test of engagement in pre-marital sexual intercourse by adolescents. The results as tabulated in Table 10 shows that a majority of adolescents (86.9%) responded in the negative while the rest (13.1%) responded in the affirmative.

In determining adolescents' perception of what influences the initiation of pre-marital sexual intercourse, Table 10 presents the results of some tested variables. From Table 8, most adolescents (53.4%) were of the view that peer pressure was the leading influencer for the initiation of pre-marital sexual intercourse. The other variables including; the individual self, addiction and receiving were thought as influencers for the initiation of pre-marital sexual intercourse by 21.4%, 9.7%, and 9% of adolescents respectively. However, a small percentage of adolescents (0.7%) had no idea of what influences the initiation of pre-marital sexual intercourse.

In determining adolescents' perception of the engagement of pre-marital sexual intercourse, Table 8 also presents the results of some tested variables. From the table, most adolescents (84.5%) claim not to have engaged in pre-marital sexual intercourse. The other variables including; the individual friends, relatives and unknown persons who they engage in pre-marital sexual intercourse by 10.7%, 1.4%, and 5.2% of adolescents respectively.

Table 8: Engagement, Influencers and Engagers of Pre-Marital Sexual Intercourse

Responses	Frequency	Percentage
Yes	38	13.1
No	252	86.9
Total	290	100.0
Influencing Variables		
By myself	62	21.4
By peer pressure	155	53.4
By addiction	28	9.7
By receiving	26	9.0
No idea	2	0.7
Potential Engagers		
Friends	31	10.7
Relatives	4	1.4
Unknown person	15	5.2
No one	245	84.5

4.3 Objective Two: To identify the proportion of adolescents that receive sex education from their parents in Anfoega

Table 9 presents the results of the categorised summated scores of receiving of sex education. The total summated scores were categorised into three– poor, moderate and good receiving of sex education. The poor reception of sex education ranges from 10.00 to 25.00, moderate ranges from 26.00 to 33.33 and the good receiving of sex education ranges from 33.34 to 50 Table 9 shows that 13.3% of adolescents had poor receiving of sex education while 40.3% of adolescents had moderate receiving of sex education and 46.2% had good receiving of sex education.

Table 9: Receiving of Sex Education

Category	Frequency	Percentage (%)	Range
Poor receiving of sex education	39	13.4	10-25
Moderate receiving of sex education	117	40.3	26-33
Good receiving of sex education	134	46.2	34-50
Total	290	100.0	

Table 10 presents the results of the measurement of parameters for receiving of sex education from parents by adolescents. A composite mean score of 3.6 was reported and this means adolescents generally agree to all parameters used in measuring receiving of sex education by adolescents. A perusal at the individual mean scores of the parameters in Table 10 revealed that adolescents agreed to all parameters with the exception of ‘Relationship with the opposite sex should not be discussed by parents’ where adolescents somewhat disagreed to it as a parameter for the receiving of sex education.

Table 10: Parameters for Receiving of Sex Education from Parents by Adolescents

<u>Parameters</u>	<u>Mean Score</u>
Composite Mean	3.6
Parents talk to me freely on sex-related issues	3.5
My parents only talk to me about sex when I am in trouble	3.6
Parents talk to me on puberty related issues such as menstruation, breast development, pubic hair, etc.	3.8
Parents talk to me about reproduction	3.6
Parents discuss abstinence with me	4.2
Contraception and condom use is never mentioned at homes	3.2
Relationship with the opposite sex should not be discussed by parents	2.4
Sexual violence prevention such as sexual assault, rape and defilement have been discussed with adolescents	3.7
Parents talk to me about gender identity and sexual orientation issues	3.8
Body image; How I should see and value myself should be discussed with adolescents	3.9

Likert Scale: 1= Strong disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly agree

Table 11 presents the results of correlation analysis conducted to determine the associations between key demographic characteristics and sex knowledge of adolescents and mean of receiving of sex education. These key demographic characteristics are age, sex, highest educational level and religious affiliation. The table shows that only sex is significantly associated with the scope of sex education received. The other variables did not have any significant association with the scope of sex education received.

Table 11: Correlation Analysis of Key variables and Scope Receiving of Sex Education (N=290)

<u>Key variables</u>	<u>The scope of Sex Education received</u>
Age	-.102
Sex	.192**
Highest Education level	-.098
Religious Affiliation	.040
Knowledge of contraception	.028
Knowledge of STI	.036

The first source of sex information	-.022
Engagement of pre-marital sex	.066

**. Correlation is significant at the 0.01 level (2-tailed).

4.4 Objective Three: To determine the relationship between Parent-Adolescent Communication and receiving of Sex Education in Anfoega

Results of a Pearson correlation analysis that was performed to examine the relationship between Parent-adolescent communication and receiving sex education show that they are statistically significant with a positive relationship ($r = 0.39$, $p < 0.05$).

Table 12 presents the results of correlation conducted to examine the relationship between key demographic characteristics and parent-adolescent communication. These key demographic characteristics are age, sex, highest educational level and religious affiliation. Table 12 displays a statistically significant relationship between age and highest education level individually and the parameters of the parent-adolescent communication on sex education at 0.01 level. The rest did not show any significant relationship.

Table 12: Correlation Analysis of Key Demographic Characteristics and Parent-Adolescent Communication (N=290)

Key Variables	Parent-Adolescent Communication
Age	-.249**
Sex	-.063
Highest Education level	-.193**
Religious Affiliation	.008
Knowledge of contraception	-.075
Knowledge of STI	.054
The first source of sex information	-.115
Engagement of pre-marital sex	-.032

**. Correlation is significant at the 0.01 level (2-tailed).

CHAPTER FIVE

DISCUSSION

The research sought to examine parent – adolescent communication on sexual health and behaviour in Anfoega in the North Dayi District of the Volta Region. Though there are limited documented records of adolescent reproductive health information for the North Dayi District. The district recorded an average of 8.5% of the teenage population getting pregnant in 2010 (GSS, 2014).

5.1 Socio-demographic and Sexual knowledge characteristics of adolescents

The study revealed that a majority of adolescents (87%) were between the ages of 13 to 18, and a majority (53.4%) of them were males. This is in contrast to the GSS 2010 PHC information which gave the percentage of 56% of females to 44% of males in Anfoega. The 96.2% of adolescents claimed to be Christians as revealed by the study confirms the GSS 2010 PHC information that inhabitants in Anfoega are predominantly Christians. With educational level, a majority of adolescents (98.6%) were in the formal education system. This also confirms the GSS 2010 PHC information that Anfoega has the highest percentage of adolescents in schools. According to the results, a majority of adolescents (76.8%) stay with at least one biological parent. It can, therefore, be assumed that most adolescents in Anfoega have better general communication and better sexual communication as reported by Markham *et al.*, (2010) who found that sexual communication is mostly high between biological parents and their adolescents compared to all other parent-adolescent relationships.

These results of the study were similar to some previous studies by Ogunlaja, *et al.* (2016) and Nnebue, *et al.* (2016). Ogunlaja, *et al.* (2016) reported that a significant outcome of their study was the fact that teenagers from monogamous family setting were more likely to have a better knowledge and practice of safer sex than their contemporaries from other family settings. In the study of Nnebue, *et al.* (2016), they reported that adolescence is a transition period to adulthood which is linked with series of issues that affect their body, behaviour and social interactions, thus behaviours that are acquired during this period have immense implications for their health and wellbeing

5.2 Knowledge and attitude on sexual and reproductive health issues

The survey revealed the knowledge levels and attitude of the adolescents on some selected sexual and reproductive health issues. Over 60% of adolescents claimed to have some knowledge about contraception and at least 4.5% of adolescents had knowledge of the types of popular contraception options available in the country. With the contraception options, a majority (85.9%) of adolescents knew of condoms while the least minority (4.5%) of adolescents knew of Intrauterine Device (IUD). The study also revealed that about 86% of adolescents claimed to have some knowledge about sexually transmitted infections (STIs) and at least 3.1% of adolescents had knowledge of the popular types of STIs. With the types of STIs, a majority (90.3%) of adolescents knew of HIV/AIDS while the least minority (3.1%) of adolescents knew of Human Papillomavirus Infection. Knowledge and information provided through sexual health education are essential if individuals are to be sexually healthy (WHO, 2010). In the views of Bridges and Hauser (2014), sex education should be informed by evidence of what works best to prevent unintended pregnancy and sexually transmitted infections, but it should also respect young people's right to complete and

honest information and it should treat sexual development as a normal, natural part of human development.

The study also revealed that the most sourced agent of first sex information is the peers of the adolescents and the least sourced agent of first sex information is the parents of these adolescents. This was in sharp contrast to Perrino *et al.* (2000) who noted that parents seem to be one of the earliest and most important influences on children's sexual development and socialization. Though Madunagu (2006) reported that parents ought to be primary sex educators of their children and should be the ones to communicate to them specific values about sexuality because it is the parents' right and responsibility, this study is suggesting parents have relegated that responsibility for peers of their adolescent to take over and offer such information.

The study also revealed that a majority of adolescents did not accept the idea of adolescents having sexual feelings as well as adolescents engaging in pre-marital sexual intercourse. Moreover, a good majority of adolescents responded in the negative in not engaging in pre-marital sexual intercourse. Additionally, the majority of adolescents claimed that peer pressure was the greatest influencers for the initiation of pre-marital sexual intercourse. Finally, the results also revealed that peers were identified as the highest potential engagers of pre-marital sexual intercourse. It was clear from the results that the adolescents of this generation, in general, do not obey parents' instructions and both boys and girls did not cherish chastity as postulated by Esuabana (2017).

These results were similar to some previous studies by Adeonkun, *et al.* (2009) and Neema *et al.* (2006). Adeonkun, *et al.* (2009) reported that only about a tenth of their respondents who are adolescents were of the opinion that young people should be involved in premarital sex, however, almost a third of them were of the opinion that young people should be allowed to use

contraception in order to prevent pregnancy. Also, Neema *et al.* (2006) reported that although most adolescents who are not in the union have not engaged in sexual intercourse, most have heard of sex. A large percentage had also heard of other STIs. They also reported that interestingly enough, the adolescents are more likely to have heard of STIs than contraception.

5.3 Proportion of adolescents who receive sex education from their parents

The research results revealed that parents educated their adolescents on abstinence, contraception, relationship with the opposite sex, sexual violence prevention, gender identity and sexual orientation issues, and finally body image. These results were in contrast to Perrino *et al.* (2000) who reported that a majority of adolescents have received poor sex education from their parents. However, the results confirm highlighted topic areas of sex education for young people by Bridges and Hauser (2014). The study also revealed a significant relationship of sex as key demographic characteristic and the scope of receiving of sex education. This confirms the report by Bridges and Hauser (2014) that, approaches to sex information communication should differ from male to female as they both have different modes of processing and receiving information.

Opcit (2006) is of the view that sexuality is a natural and positive aspect of being human, therefore parents should freely discuss sexuality intrigues with their wards using real-life applications, be sincere and be sure the meaning of new words is clear and understood. Parents may be the ideal source of providing children with information about sex because of their long-term involvement in the lives of their children according to Perrino *et al.* (2000), parents seem to be one of the earliest and most important influences on children's sexual development and socialization. Given that children nowadays have sexual intercourse at an earlier age it is important that parents begin to

discuss sexuality in childhood so that they can help their children to make deliberate decisions about having sex and can inform them about safe sex practices.

Albertos *et al.* (2016) concurs with the results but add up more socio-demographic variables. They reported that being younger, being female and having a high degree of religiosity were associated with greater parental knowledge of sexuality. However, the results were in contrast to a study by Amoateng, *et al.* (2014). Amoateng, *et al.* (2014) reported a significant association of religious affiliation and the receiving of sex education. They suggested the reason to be that almost all religious organisations prohibit antisocial behaviours such as early initiation of sexual activities and sex outside of marriage

5.4 Relationship between parent-adolescent communication and receiving of sex education

The results of the study show that there was a statistically significant positive relationship between parent-adolescent communication and scope of receiving sex education. This is supported by Markham *et al.* (2010) who reported that adolescents who feel close and connected to their parents and express trust in the parent-child relationship are more likely to have better general communication and better sexual communication. Although direct communication between parents and children about sexuality is limited in many families, parents may be sources of guidelines for children as they both, directly and indirectly, transmit their standards of conduct during the socialization process (Esuabana, 2017).

The study also revealed a significant relationship between age and education level as key demographic characteristics and parent-adolescent communication. This result supports the revelation of Esuabana (2017) who noted that today's children are much more intelligent, alert,

curious and conscious of the fact that their parents and elders talk some secret behind them. They want to know the secret. If the secret is concealed from them they may take some wrong approach and develop undesirable habits. Parents are so much traditional and orthodox in their outlook that they do not prefer imparting sex-education as a noble work. Sometimes children satisfy their instincts and get mythical information about sex from other sources such as servants, friends, relatives, and T.V. programmes etc., this information may be incorrect and could have a spurious effect on them.

The findings of the study corroborate previous empirical evidence provided by Amoateng, *et al.* (2014) who reported that adolescent development in general, and adolescent anti-social behaviours in particular, are affected by both personal characteristics and such broad societal conditions as family, school and peer influences.

Limitation of the study

The research was restricted to only four out of the seven towns in Anfoega due to funding to recruit more research assistants.

Some questions of the survey which related to sexual morality may not have been honestly answered.

The findings of this study are limited to Anfoega, thus findings cannot be generalised in other geographical and cultural settings in Ghana.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This study examined parent-adolescent communication on sex education and adolescent sexual behaviours in Anfoega in the North Dayi District of the Volta Region. The study also established the significance of the various variables as identified in the conceptual framework.

6.1.1 Socio-demographic and Sexual knowledge characteristics of adolescents

From the study, it was established that the population of males exceeded that of the females and the adolescents are predominantly Christians. The findings also established that almost all the adolescents in Anfoega are in the formal education system and most of them stay with at least one biological parent.

6.1.2 Knowledge on sexual and reproductive health issues

The findings of the study established that a majority of the adolescents have some knowledge about contraception with most of them knowing about condoms. It was further established that a majority of the adolescents had some knowledge about STIs with almost all of them knowing of HIV/AIDS. Peers of adolescents were identified as the most sourced agent for first sex information and parents were the least sourced agent for first sex information.

The findings of the study also established that the adolescents see the idea of having sexual feelings as unacceptable and a majority of the adolescents were not sexually active. It was also established that peer pressure was the greatest influencer for the initiation of pre-marital sexual intercourse.

6.1.3 Proportion of adolescents who receive sex education from their parents

The findings of the study established that all adolescents had received education from parents on at least one of the following: abstinence, contraception, relationship with opposite sex, sexual violence prevention, gender identity, sexual orientation issue and body image. The findings further established that there is a significant relationship between sex and the scope of receiving of sex education.

6.1.4 Relationship between Parent-Adolescent Communication and Scope of Receiving Sex Education

The findings of the study established that there is a significant relationship between parent-adolescent communication and scope of receiving sex education. The findings further established that age and education level have a significant association with parent-adolescent communication.

6.2 Recommendations

The study findings parent-adolescent communication on sex education and adolescent sexual behaviours. The following are the recommendations made based on the study:

6.2.1 Knowledge on sexual and reproductive health issues

I. Government and Ghana Education Service

The government should take a keen interest in the sexual status of its adolescent citizenry since it is the duty of the government to protect its citizen from all potential harm. The government should, therefore, undertake an intentional and structured process to impart sex knowledge and skills through formal and informal means so as to positively influence the adolescents' sexual developmental course.

The Ghana Education Service (GES) should plan and approve a curriculum for the compulsory learning content in sex education for our schools in accordance with the law. The GES should also ensure that teachers selected to lead sex education has undergone the requisite training and there should be refresher courses for the exposure to new situation and learnings.

II. Schools

Beyond the provision of academic instructions and qualifications, the school is a social environment where students interact and have many other opportunities to learn how to live in the society. In many instances, some adolescents prefer to discuss sexuality with friends or with trusted adults at the school, rather than with their parents since some parents find discussions on sex embarrassing and difficult to open up on such subjects. More awareness should be created on all other types of contraceptives aside condom and all types of STIs aside HIV/AIDS.

There is the need for interventions by the school and their staff to be well equipped to handle this situation to employ the most appropriate educational approach of sex education to adolescents and all students. Schools should provide effective guidance and counselling sessions to help reassure, encourage, answer and to create a platform for the provision of accurate sexual health information to students.

6.2.2 Proportion of adolescents who receive sex education from their parents

Receiving of sex education should be sustained and appraised intermittently. Parents need to continue education their adolescents on contraceptives, STIs, self-image, respect for others, and autonomy among others. Parents should also seek the needed information and supported from resource persons, establishments, or other sources so as to provide accurate information to their adolescents.

6.2.3 Relationship between Parent-Adolescent Communication and Receiving of Sex

Education

Parent adolescent communication on sex education should be sustained and improved. Delay of sexual initiation, prevention of unintended pregnancies, respect for other people's right to bodily autonomy, protection of academic success among others should be encouraged and communicated frequently in order to sustain this positive relationship.

Future Research

Further research to be conducted in this area of study should investigate the impact of the media, religion and society on sex education of adolescents so as to explore the effect of externalities on the sex education of adolescents. A qualitative study would help to provide a deeper understanding of the role these external institutions and sex education have on receiving of sexual behaviour.

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APPENDICES

APPENDIX 1: PARTICIPANT INFORMATION SHEET

Title: Parent-adolescent communication on sex education and adolescent sexual behaviours in

Anfoega in the North Dayi District of the Volta Region

Chief Investigator: GIFTY MALOE ADOFOLI

Address: the University of Ghana, School of Public Health, Department of Social and

Behavioural Science, P.O. Box LG 25, Legon- Accra

General Information about Research

The aim of this study is to find out how parents educate their children about sex and to identify some sexual behaviours exhibited by adolescents. This study will also explore your knowledge on some sex-related issues such as your perception on sex education, contraceptive use, sexual behaviour, Sexually Transmitted Infections (STIs) and some Socio-demographic information such as your age, sex, educational level, and who you are staying with. You have been selected to be part of the study because you are between the ages of 10 to 19 years. As a participant, you are required to fill out the questionnaire with your best answers. This will take about 30 minutes of your time.

APPENDIX 2: DATA COLLECTION INSTRUMENT QUESTIONNAIRE

Date: Community:

PARTICIPANTS' INSTRUCTIONS: Do not write your name; tick only one correct response and multiple responses where applicable. Only adolescent aged between 10 and 19 years are eligible for this study.

Part One: Socio-demographic information

What is your age in years? []

What is your sex? i. Male [] ii. Female []

What is your marital status? i. Single [] ii. Co-habiting [] iii. Married []
iv. Divorced []

Are you currently schooling? i. Yes [] ii. No []

What is your highest-level of education attained? i. No formal Education []
ii. Primary [] iii. JHS [] iv. SHS [] v. Tertiary []

What is your religious affiliation? i. Christian [] ii. Muslim []
iii. Traditionalist [] iv. Others []

What is your occupation? i. Clerical/Salaried worker [] ii. Farming []
iii. Trading [] iv. Artisan [] v. Casual worker [] vi. Student [] vii. Unemployed []

Whom do you stay with? i. Both Parents [] ii. Mother only []
iii. Father only [] iv. Relative [] v. Non-relative Guardian [] vi. Partner []

Part Two: Knowledge and attitude on selected sexual and reproductive health issues

Do you have any knowledge of what a contraceptive is? i. Yes [] ii. No []

Which of the following types of contraceptives have you heard of? Tick as many as applies.

- i. Contraceptive Pill [] ii. Condom [] iii. Intrauterine device (IUD) []
iv. Contraception injections [] v. Spermicide [] vi. Sterilisation []
vii. Natural Family Planning []

Do you have any knowledge of what an STI is? i. Yes [] ii. No []

Which of the following types of STIs have you heard of? Tick as many as applies.

- i. HIV/AIDS [] ii. Gonorrhoea [] iii. Syphilis [] iv. Genital Herpes []
v. Chlamydia trachomatis [] vi. Human papillomavirus infection []

Where did you first hear of sex? i. Parents [] ii. Friends [] iii. Media []

iv. School [] v. A book []

In your view, is it acceptable to have sexual feelings as an adolescent?

- i. Yes [] ii. No [] iii. I don't know []

In your view, is it acceptable to engage in pre-marital sex as an adolescent?

- i. Yes [] ii. No [] iii. I don't know []

Have you engaged in pre-marital sexual intercourse? i. Yes [] ii. No []

What influences the initiation of pre-marital sexual intercourse? Tick as many as applies.

- i. By self [] ii. By peer pressure [] iii. By addiction [] iv. By reception []

Who do you engage in the pre-marital sexual intercourse with?

- i. Friends [] ii. Relatives [] iii. Unknown Person [] iv. No one []

Part Three: Receiving of sex education from parents by adolescents.

The following items are seeking to find whether adolescents receive sex education from their parents. Kindly respond with the response that matches your opinion. Please tick as appropriate in the boxes using a tick (√).

Likert Scale: 1= strongly disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly agree

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Parents talk to me freely on sex-related issues					
My parents only talk to me about sex when I am in trouble					
Parents talk to me on puberty related issues such as menstruation, breast development, pubic hair etc					
Parents talk to me about reproduction					
Parents discuss abstinence with me					
Contraception and condom use is never mentioned at homes					
Relationship with the opposite sex should not be discussed by parents					
Sexual violence prevention such as sexual assault, rape and defilement have been discussed with adolescents					
Parents talk to me about gender identity and sexual orientation issues					
Body image; How I should see and value myself should be discussed with adolescents					

Part Four: Effects of Parent-Adolescent Communication on sex education

The following items are postulated effects of parent-adolescent communication. Kindly respond with the response that matches your opinion. Please tick as appropriate in the boxes using a tick (√).

Likert Scale: 1= Strong disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly agree

APPENDIX 3: CONSENT FORM

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Autonomy (confidence in stating one’s opinion)					
Taking an active role in the family decision-making process					
Asserting and affirming the independence					
Fostering healthy intimate parent relationship					
Avoidance of negative health consequences like unintended pregnancy, STI, etc.					
Delay sexual initiation until they are ready					
Understanding healthy and unhealthy relationships					
Makes one timid and reserved					
Understanding of value and feel of autonomy over their bodies					
Respect for others’ right to bodily autonomy					
Protection of academic success					

Title: **Parent-adolescent communication on sex education and adolescent sexual behaviour in Anfoega – North Dayi**

Principal Investigator: **Gifty Maloe Adofoli**

Address: **the University of Ghana, School of Public Health, Department of Social and Behavioural Science, P.O. Box LG 25, Legon- Accra**

General Information about Research

The aim of this study is to find out how parents educate their children about sex and to identify some sexual behaviours exhibited by adolescents in Anfoega. This study will also explore your knowledge on some sex-related issues such as your perception on sex education, contraceptive use, sexual behaviour, Sexually Transmitted Infections (STIs) and some Socio-demographic information such as your age, sex, educational level, and whom you are staying with. You have been selected to be part of the study because you are between the ages of 10 to 19 years. As a participant, you are required to fill out the questionnaire with your best answers. This will take about 30 minutes of your time.

Possible Risks and Discomforts

You may experience minimal physically, social and psychological discomfort while answering some questions on the questionnaire. When this happens, you can take a break and refresh yourself, skip the question or stop answering the questionnaire.

Possible Benefits

There is no direct benefit to you as a participant. However, the findings of this study will be made available to the North Dayi District and this will be used in policy formulation to benefit the District.

Confidentiality

The information and answers you have provided will be kept secure by protecting your information with a password and storing it on a computer. Another copy will be kept on an external hard drive. Hard copies will be locked in a cabinet where only my supervisor and I can access. Your names will not be printed or mentioned anywhere when talking about the findings of this study.

Privacy

When you are filling out the questionnaire, you will be excused to enable you to feel comfortable in filling out the questionnaire. However, if you cannot read and write, you will be reassured to feel comfortable in the presence of the researcher, and the questions will be translated in ewe for your understanding.

Compensation

You will be given an exercise book and pen after you have filled the questionnaire.

Voluntary Participation and Right to Leave the Research

Your participation in the study is voluntary, however, you have the right to withdraw from the study at any time in the study. It will not be held against you.

Contacts for Additional Information

In case of doubt or any harm caused during the study participants are free to contact the principal investigator on 0247958612 or send an email to giftyadofoli@gmail.com or the Supervisor on 057 2000 534 Email: fglozah@ug.edu.gh or the School of Public Health, Department of Social and Behavioural Science on 0302500381 or send email to pad@ug.edu.gh

Your rights as a Participant

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

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **Parent – adolescent communication on sex education and adolescent sexual behaviour in Anfoega – North Dayi**, has been read and explained to me. I have been given an opportunity to ask any questions about the research and they have been answered to my satisfaction. I agree to participate as a volunteer.

Date

Name and signature or mark of volunteer

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

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

Date

Name and signature of witness

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

Date

Name and signature of Person Who Obtained Consent

CHILD ASSENT FORM

Introduction and General information

My name is Gifty Maloe Adofoli and I am from the Department of Social and Behavioural Science at the University of Ghana School of Public Health, Legon Accra. I am conducting an investigation entitled **Parent-adolescent communication on sex education and adolescent sexual behaviour in Anfoega – North Dayi**. You have been selected to be part of this investigation because you are between the ages of 10 to 19. The investigation will explore your knowledge on some sex-related issues such as your perception on sex education, contraceptive use, sexual behaviour, Sexually Transmitted Infections (STIs) and some information on your age, gender, educational level, and who you are staying with. Once you have agreed to be part of this investigation you will be required to fill a form that contains some questions with your best answer. You don't have to be afraid because it is not an exam and there are no right or wrong answers. This will take about 30 minutes of your time.

Possible Benefits

There is no direct benefit to you as a participant. However, the findings of this study will be made available to the North Dayi District and this will be used in making future decisions to benefit everyone in the District.

Possible Risks and Discomforts

You may experience minimal discomfort while answering some questions on the questionnaire. When this happens, you can take a break and refresh yourself, skip the question or stop answering the questionnaire.

Voluntary Participation and Right to Leave the Research

Your participation in the investigation is out of free will, however, you have the right to withdraw from the investigation at any time. It will not be held against you.

Confidentiality

The information you provided while answering the questionnaire will not be disclosed to anyone. No one will know how you responded to the questions and your name will not be mentioned when talking about the findings of this study.

Privacy

When you are about to start answering the questions, the researcher will step back to allow you to feel comfortable. If you cannot read the questions it will be translated into ewe for your understanding. The researcher will help you answer the questions and you don't have to be afraid.

Compensation

You will be given an exercise book and pen after answering the questions.

Contacts for Additional Information

You may ask me any questions about this study. You can call me at any time on 0247958612 or send me an email on giftiyadofoli@gmail.com or you can talk to me the next time you see me

Please talk about this investigation with your parents before you decide whether or not to participate. I will also ask permission from your parents before you are enrolled in the investigation. Even if your parents say "yes" you can still decide not to participate.

Your rights as a Participant

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

VOLUNTARY 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.

This assent form which describes the benefits, risks and procedures for the research titled **Parent-adolescent communication on sex education and adolescent sexual behaviour in Anfoega-North Dayi**, has been read and or explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate.

Child's Name: **Researcher's Name:**

Child's Mark/Thumbprint..... **Researcher's Signature:**

Date: **Date:**

PARENTAL CONSENT FORM

Title: **Parent-adolescent communication on sex education and adolescent sexual behaviour in Anfoega-North Dayi,**

Principal Investigator: **Gifty Maloe Adofoli**

Address: the **University of Ghana, School of Public Health, Department of Social and Behavioural Science, P.O. Box LG 25, Legon- Accra**

General Information about Research

The aim of this study is to find out how parents educate their children about sex and to identify some sexual behaviours exhibited by adolescents in Anfoega. This study will also explore your wards knowledge on some sex-related issues such as your perception on sex education, contraceptive use, sexual behaviour, Sexually Transmitted Infections (STIs) and some Socio-demographic information such as their age, sex, educational level, and who they are staying with. Your ward has been selected to be part of the study because he/she is between the ages of 10 to 19 years. As a participant, your ward will be required to fill out the questionnaire with their best answers. This will take about 30 minutes of their time.

Possible Risks and Discomforts

Your ward may experience minimal physically, social and psychological discomfort while answering some questions. When this happens, the child can take a break and refresh, skip the question or stop answering the questionnaire.

Possible Benefits

There is no direct benefit to your child as a participant. However, the findings of this study will be made available to the North Dayi District and this will be used in policy formulation to benefit the District.

Confidentiality

The information and answers provided by your child will be kept secure. The information will be protected with a password after it has been computed and it will be stored on a computer. Another copy will be kept on an external hard drive. Printed copies will be locked in a cabinet where only my supervisor and I can access. Your child's names will not be printed or mentioned anywhere when talking about the findings of this study.

Privacy

When your **child** is about to fill out the questionnaire, the researcher will excuse him/her to enable your child to feel comfortable in filling out the questionnaire. However, if your child cannot read and write, reassurance will be given to make the child comfortable in the presence of the researcher, and the questions will be translated in ewe for the child's understanding.

Compensation

Your child will be given an exercise book and pen after filling out the questionnaire.

Voluntary Participation and Right to Leave the Research

Your child's participation in the study is voluntary, however, the child has the right to withdraw from the study at any time. It will not be held against **the child**.

Contacts for Additional Information

In case of doubt or any harm caused during the study participants are free to contact principal investigator on 0247958612 or send an email to giftyadofoli@gmail.com or the Supervisor on 057 2000 534 Email: fglozah@ug.edu.gh or the School of Public Health, Department of Social and Behavioural Science on 0302500381 or send email to pad@ug.edu.gh

Your rights as a Participant

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

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **Parent-adolescent communication on sex education and adolescent sexual behaviour in Anfoega-North Dayi**, 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 that my child should participate as a volunteer.

Date

Name and signature or mark of parent or guardian

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

I was present while the benefits, risks and procedures were read to the child's parent or guardian. All questions were answered and the child's parent has agreed that his or her child should take part in the research.

Date

Name and signature or mark of witness

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

Date

Name and signature of Person