

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI, GHANA
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF POPULATION, FAMILY AND REPRODUCTIVE HEALTH**



**ASSESSING PARENTAL INFLUENCE ON ADOLESCENT SEXUAL BEHAVIOUR
IN THE BANTAMA-METRO**

**BY
FIAGBEY, JOSEPHINE**

JUNE, 2019

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES,
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF PUBLIC HEALTH IN POPULATION, FAMILY & REPRODUCTIVE
HEALTH.**

JUNE, 2019

DECLARATION

This thesis is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature and acknowledgement of collaborative research and discussions.

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DEDICATION

This thesis is dedicated to my husband (Ing. Godswill Elorm Fiagbey) whose encouragement have meant so much to me during the pursuit of my program and my daughter Diamond Ewoenam Fiagbey.

ACKNOWLEDGEMENTS

I would first thank God for seeing me through this program successfully. I would also thank Dr. Nakua whose door was always opened whenever I had a question about my research. He made sure I did the work myself but directed me when he thought it necessary. Without his input, my thesis would not have been successfully completed. To my beloved Elorm and Aunty Ama, I say God bless you and thank you. I owe a debt of gratitude to my dear colleagues who supported me because of my condition during the program.

ABBREVIATIONS/ACRONYMS

AIDS: Acquired Immunodeficiency Syndrome

ECP: Emergency Contraceptive Pills

F.M: Frequency Modulation

HIV: Human Immunodeficiency Virus

IUD: Intrauterine Device

OCP: Oral Contraceptive Pills

SIECUS: Sexuality Information and Education Council of United States

STI: Sexual Transmitted Infection

UNDP: United Nations Development Programme

UNFPA: United Nations Fund for Population

UNICEF: United Nations Children's Fund

UNAIDS: United Nations Program on HIV/AIDS

WHO: World Health Organisation

ABSTRACT

Introduction

According to the WHO, the term adolescence is defined as a period of life between 10-19 years. It is a unique period of age characterized by significant physical, cognitive, emotional and social changes.

Parents-adolescent's influence is vital for the outright growth and development in all aspects including sexual and reproductive health of adolescence. However, parents-adolescence communication on sexual issues, supervision and monitoring and provision of basic needs are sometimes lacked. This behavior most often results in a larger proportion of adolescents engaging in unhealthy or risky sexual behavior. Thus, the purpose of this study was to assess the influence of parents in adolescent sexual behavior.

Methods

A cross-sectional study was conducted among 400 adolescents aged 10-19 years in the Bantama metropolis. A structured questionnaire was used to assess socio-demographics of respondents, sources of information regarding reproductive health, parental roles, adolescent's knowledge on sexual and reproductive health and sexual behavior. Simple random sample was employed to select participants. Data in the questionnaires was coded and entered using MS Excel Version 2016 for windows and then exported to Stata Version 14.0 for analysis. The mean, standard deviation, percentages and cross tabulations were used for the descriptive analysis.

Results

A total of 400 adolescence aged 10-19 participated in the study. There was high knowledge on condom use 269 (67.25%) and adolescents main source of information on sexual and reproductive health were from peers, 105 (26.25%).

Academics issues are the most issues discussed with parents by adolescents, (52.50%) whilst sexual and reproductive health issues are the least issues discussed with parents, (3.75%).

The study found that, more than half 247 (61.75%) had never had sex before, out of the respondents who have had sex, majority 81 (52.94%) had had sex for the last six months and condom was the most common 50 (76.54%) . Most 62 (76.54%) had had sex with only one person whiles 8 (9.88%) had had sex with three or more persons.

Conclusion

Poor parental relationship with their children in matters related to sexual and reproductive health as they enter adolescent were high in this study. Adolescence knowledge on emergency contraceptives, birth control pills were low compared to knowledge on condom use, abortion services and STIs including HIV/AIDS.

Adoption of behavioral change strategies such as family gathering, real lifestyle experience story-telling that would enable them have cordial relationships with their adolescent children Health facilities should intensify their education on long lasting family planning services and emergency contraceptive pills for adolescents. Comprehensive health education about sexual and reproductive health should be infused into the school curriculum to enable adolescents have adequate knowledge on sexual issues.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Growing into adolescence is a gradual process and entails different stages of development with diverse behavioural pattern. WHO defines adolescence as a person between the ages of 10 and 19 and it is the period in human growth and development that occurs after childhood and before adulthood (WHO, 2015). Adolescence marks the transition between childhood and adulthood and is usually characterized by secondary sexual growth, emotional changes, hormonal milieu as well as psychological and cognitive development (Olukoya & Ferguson, 2001; Olukoya & Ferguson, 2002). According to (UNICEF,2011) the adolescence stage is in two parts; early adolescence spanning between 10-14 and late adolescence is from 15-19. The adolescence stage is very important in the life cycle because what happens at that stage whether good or bad, is sometimes a pointer to what develops of the person in future. Therefore, the adolescence stage must be guided especially by parents and other significant stakeholders in the area of sex so that adolescents are not misguided.

The role of parents appears to be vital during adolescent years especially concerning reproductive health issues (Leshabari, 2009). Parent roles affect adolescent identity formation and role-taking ability and in exhibiting appropriate sexual behaviour. Researchers, suggest that adolescents whose parents communicate on sexual behaviour are more likely to feel free expressing to their parents their reproductive and sexual behaviour (Kajula, 2011).

Again, parents' discussions with their children on reproductive health and sexual behaviour is significant in facilitating good sexual behaviour among adolescents (Jaccard, 2002).

According to Leshabari (2009) the role of parents in ensuring that adolescent practice acceptable sexual behaviour cannot be underestimated. A study by Leshabari, (2009), it was found that adolescents whose parents educate them on their sexual and reproductive health learn better and share their sexual and reproductive experience and difficulties with the parents than those who do not. Parents role in adolescent sexual behaviour and reproductive health tend to vary from place to place. A study by Arnett (2006) showed that 42 percent of Latino adolescents reported learning sexual behaviour and reproductive health practices from their parents compared to 13 percent of African adolescents who learn sexual behaviour and reproductive practices from their parents. The study further found that 65% of white adolescents learn sexual behaviour and reproductive health from their parents. It was found that more sexual health issues were been discussed between parents and white adolescents compared to parents and African American adolescents (Amoran et al., 2005). It is reported that adolescents and youth in Sub- Saharan Africa engage in riskier sexual behaviour and reproductive health practices such as inconsistent use of condom during sexual intercourse and having sexual intercourse with more than one partner than white adolescents (Barker, 2010).

Relatively low number of adolescents and youth in Sub- Saharan Africa engage their parents on issues relating to reproductive and sexual behaviour (Botchway, 2004). This situation increases the risk of most adolescent in Africa to engage in sexual behaviour and reproductive health practices that negatively affect their reproductive system and lead to several implications for the adolescent during adult age (Brook, 2006).

According to (Izugbara, 2008), the issue of unplanned pregnancies among African adolescents and increasing number of sexual transmitted infections are all causes of lack of

communication between adolescents and the parents. (Namisi et al., 2009) reported that in terms of roles parents play in adolescent sexual and reproductive health education, mothers play more roles than fathers. Parents' roles in adolescents sexual behaviour and reproductive health practices is further limited by gender of parents. Mothers are more likely to communicate with their adolescent girls about their reproductive health than boys. fathers' role is reducing in terms of sexual education due to economic pressure

Within the Ghanaian context, most parents do not communicate with their adolescent on issues regarding sexual behaviour and reproductive health. Most of the changes that occur during adolescence require that parents help the adolescent to cope with the experience during adolescent period but this is not always the case for most parents in Ghana. Although parents have much more experience in life than the adolescent, they fail to share with their adolescents. Thus, the adolescents being unaware of the challenges and changes in the reproductive health and age engage in risky behaviour (Botchway, 2004). The situation is not different within the Bantama-metro in the Ashanti Region. If Parents, community leaders and stakeholders would make adolescent sexual and reproductive health education a priority, some sexual risk behaviors of their sons and daughters would be prevented and unplanned pregnancies and sexual transmitted infections reduced. It is against this backdrop that this study assesses parental influence on adolescent sexual behaviour.

1.2 Problem Statement

Parental roles regarding adolescent sexual and reproductive health has the tendency to help adolescent avoid risky sexual behaviours. Parent-adolescent communication, provision of needs and supervision and monitoring are noted to influence adolescents to practice sexual

behaviour that does not put the adolescent at risk of any sexual misconduct (Burgess, 2005). However, many parents have neglected their responsibilities by not providing basic needs of their adolescent, engaging them in hawking on the streets and markets places which expose them especially the girls to older males who harass them sexually. The end result of these are; early sexual intercourse and prostitution.

Another problem is parent-adolescent communication on issues of sexual and reproductive health. Some parents have left the responsibility of sex education to the schools thus, they rarely discuss sexual matters with the adolescent. Also, parents assume sexual issues for the adolescent is not important since the adolescent is too young to know about sex and also many parents are uncomfortable to discuss sexual issues with their children. They believe that, discussion on sexual issues would rather make the adolescent curious which would lead to trial, thus, they prefer not to talk about it all.

The above problems make the adolescent engage in risky sexual behaviour such as early sexual debut, unprotected sex, multiple partners, and even gay, lesbianism, bisexual, unintended pregnancy, sexually transmitted infections including HIV/AIDS, unsafe abortion which can result in death. Bantama- metro cannot be left out when issues of risky sexual behaviour and its consequences is talked about. For example, the recent gang rape by two adolescents which occurred in the area. Hence this study attempts to assess the influence of parents in adolescent sexual behavior.

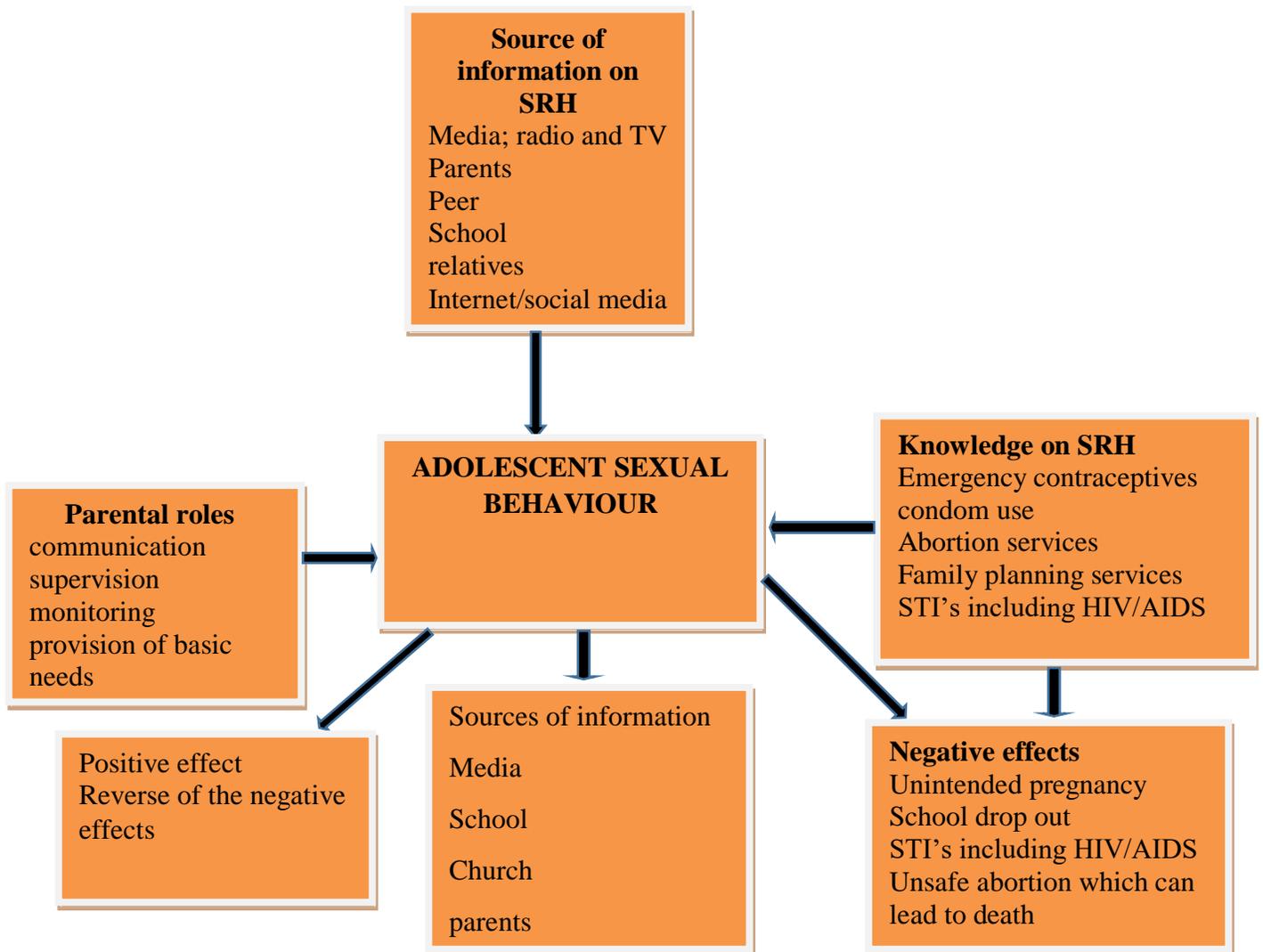
1.3 Rationale of Study

Effective parental role or contribution is noted to influence adolescents to practice sexual behaviour that does not put the adolescent at risk of any sexual misconduct (Burgess, 2005) However, many adolescents have difficulty talking to their parents on sexual and

reproductive health. Hence resorting to opinions from their peers who sometimes have limited or no knowledge, consequently exposing them to unhealthy sexual practices. Thus, it is against this backdrop that this study seeks to assess whether there is a relationship between parental influence and adolescent sexual behaviour.

1.4 Conceptual framework

Figure 1.1 Conceptual framework on adolescent sexual behaviour



Source: Researcher's construct 2018

The diagram above shows the conceptual framework of adolescent sexual behaviour. The tendency of adolescent engaging in risky sexual behaviour varies from person to person and it could be based on either adolescent's exposure or parental factors. This study will concentrate on factors such as source of information, knowledge on sexual and reproductive health (i.e. condom use, use of emergency contraceptives, STI's including HIV/AIDS, etc) and parental roles such as parent- adolescent communication, supervision, monitoring and provision of adolescent basic needs. The above factors are the likely predictors of adolescent sexual behaviour, and they can either influence the adolescent positively or negatively. The aftermath of the negative or risky behaviour are the following; abortion, death, unintended pregnancy, school dropout, STI's including HIV/AIDS and among others and the reverse is true for a positive behaviour

Parents play a significant role in the sexual development and the behaviours of their children. Parental monitoring, supervision, provision and communication are important avenues for keeping adolescents from risky situations and activities. If parents are able to provide for their children, especially, the adolescent girl, most girls will not depend on men for survival. Also, Parents find it difficult in communicating sexual issues with their adolescent children, since discussions concerning sex seems like a taboo in most communities in Ghana. However, if parents will communicate sex issues with their adolescents, there will be correct transfer of knowledge to their adolescent children hence, making adolescents not to turn to their peers whose knowledge are sometimes inadequate and untrue.

Another contributing factor of sexual behavior is peer influence. Some teenagers decide to have sexual relationships because their friends think sex is cool and also believe having sex

is the best way they can prove their love. Adolescents who do not engage in any sexual relations are sometimes mocked at and may even feel intimidated by the behaviour of their peers, hence, pushing them to engage in sexual activities.

Adolescents who don't have any formal education have limited or no knowledge on sexual and reproductive health; such as use of contraceptive, which make them engage in early intercourse making majority of the girls have unintended pregnancy which eventually make them school dropouts. Also, girls who stay long in school up to tertiary level, delay in having intercourse and also getting pregnant and the reverse is true. Religious practice is correlated with lower levels of adolescent sexual behaviour. Adolescents who attend religious services regularly do not easily engage or have difficult attitudes towards sexual activity and vice versa.

In addition, source of information also has impact on adolescent sexual behaviour. Online social networking and topics discussed can potentially increase or decrease sexual risk behaviours. Social media is an auspicious channel to deliver health information, including health promotion and diseases prevention messages. Nonetheless, social media platforms might also have negative consequences leading to a more offensive behaviour and discussion around sex coupled with less parental supervision. A study by Journal of Medical Internet Research Public Health and Surveillance (2017) concluded that Latino adolescents who sent or received more than 100 SMS per day were significantly more likely to ever have vaginal sex and adolescents who logged into a social networking account at least once per day were significantly more likely to ever have vaginal sex.

1.5 Research Questions

1. Do adolescents have knowledge on their sexual and reproductive health?
2. What are the main sources of information of adolescents' sexual and reproductive health?
3. Do parental roles have an impact on adolescent sexual behaviour?
4. What are some sexual behavior of the adolescent?

1.6 General Objective(s)

The general objective is to assess parental influence on adolescent sexual behaviour in Bantama-metro in the Ashanti Region.

1.7 Specific Objectives

1. To assess adolescent's knowledge on sexual and reproductive health.
2. To determine main sources of information on sexual and reproductive health among adolescents.
3. To determine the effect of parental roles on adolescent sexual behaviour.
4. To determine sexual behaviour of the adolescents in the community.

1.8 Profile of the Study Area

Bantama- metro is one of the nine metros created under Kumasi Metropolitan Assembly in the year 1995. It shares boundary with Atwima Nwabiagya District at the north, Suame, Tafo and Asokore Mampong Municipal Assembly at the east, Kwadaso metro at the west and Subin and Nhyiaso metros at the South. The land size is about 28.8sq/km. There are 12

communities under the Bantama metro with a population of 327,965 and its rate is 5% per annum. Bantama has about 7,056 houses giving a household size of 4.9%.

The Bantama metro has one (1) teaching hospital being Komfo Anokye Teaching Hospital; the country's second largest teaching hospital, one (1) Government hospital being the Suntreso hospital and seven (7) private health facilities, a number of laboratories, pharmacies and maternity homes. There are fourteen (14) primary schools, fourteen (14) junior high schools and four (4) senior high schools in the Bantama metro. There are 3 main markets in the Bantama metro; the Bantama, Bohyen and Abrepo markets. Also, a number of financial institutions are within the Bantama metro; Barclays Bank, Ghana Commercial Bank, Merchant Bank, Beige Capital Micro Finance, Ecobank Ghana Limited and Atwima Mponua Rural Bank, Nwabiagya Rural Bank. Hotels, guest houses, restaurants and traditional catering facilities with variety of both continental and local dishes are found in the metro. The Bantama metro can boast of 2 local Frequency Modulation (F.M) stations; these are Angel F.M and New Mercury F.M. Travel and tour agencies also exist in this area. The sub- metro houses many important traditional and administrative landmarks in Kumasi. The Center National Culture, the mausoleum where Asantehene lie in state before their transfer to their final resting home at Breman and the Kumasi Zoological Gardens. Females form 52.2% of the population, which is predominantly Asante, with a significant concentration of Northerners. The educational background of the local citizenry, especially the females, is primary school graduates and the main occupation is retail trading.

One major challenge in the Bantama metro is water and sanitation and since most houses are overcrowded, there are some serious implications for the public health. Also, due to the fact that Bantama is a business hub, there exists some undesirable social consequences, with

youngsters drawn to engage in indiscriminate abuse of drugs, alcohol and sex that ultimately results in high prevalent rates of HIV/AIDS, juvenile delinquency and teenage pregnancy. The Bantama-metro has an unenviable record of being one of the sub-metros with a teenage pregnancy rate of over 17% (Akumoa-Boateng, 2012).

1.9 Scope of the Study

The study was limited to adolescents between the ages of 10 to 19 years. These adolescents were sampled from (6) six out of 12 communities in Bantama metro. Structured questionnaire was administered to participants to elicit information on their socio-demographics, knowledge on sexual and reproductive health, parental contributions or roles and their sexual behaviour.

1.10 Organization of the Report

This study is divided into six chapters. Chapter one includes a background information on parental influence on adolescent sexual behaviour, problem statement, rationale of the study, conceptual framework, research questions, general and specific objectives, profile of study area and scope of the study.

Chapter two reviews literature based on theories and models related to the topic and objectives. Chapter three described study methods employed in the collection and analysis of data, study variables to be measured, study design, sampling technique and size, study population, pre-testing, data handling and ethical issues. Limitations and assumptions also exists in this chapter. Chapter four and five includes results and discussions respectively. Lastly, chapter six entails conclusion and recommendations.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter concentrates on reviews of relevant writings on the influence of parental roles on adolescent sexual health and behaviour. It consists of relevant ideas from books, journals, articles and reports identified with the objectives of the study.

2.2 Adolescence stage

Adolescent sexual behaviour is of importance due to the far reaching implications of such behaviour on the family and society at large. Although, sexual activity is a part of normal behaviour and development, it may also be associated with negative outcomes, especially, if sexual behaviour includes early sexual debut, or without due attention to the risks involved (Maswikwa et al., 2015). Adolescents may face many sexual and reproductive health risks stemming from early and unprotected sex and unwanted pregnancy and sexually transmitted infections such as syphilis, gonorrhoea, Human Papilloma Virus and Human Immunodeficiency Syndrome. The social environment in which adolescents live and learn also has an influence on them, thus parents and families are a crucial part of this social environment. World Health Organization (WHO), the United Nations Population Fund (UNFPA), and the United Nations Children's Fund (UNICEF) mentions "home" as the core intervention setting and "family" as key players for intervention delivery (WHO, 2012). Report from these organisations indicate that the family provides support and love, promotes moral development and a sense of responsibility, provides role models and education about culture, sets expectations, negotiates for services and opportunities and counteracts harmful

influences from the social environment (WHO, 2007). Again, Fitzpatrick and Ritchie, (2001) also place much emphasis on family. According to them, family is a setting inside which children develop and it is important to grasp how relatives speak with each other and the impact that those interactions have on the well-being of an individual. WHO (2007) defines parents as “all those who provide significant and / or primary care for adolescents, over a significant period of the adolescent’s life, without being paid as an employee,” including biological parents, foster parents, adoptive parents, grandparents. According to WHO (2007), there are three parental roles and these are; advocating for needed resources, behaviour control and connectedness. These three roles are known as the ABCs about parenting.

2.3 Knowledge of adolescents on sexual and reproductive health

Knowledge and access to reproductive health services is essential for both the adolescents’ physical and psychological health. This is because as people transit from childhood to adulthood, they are often not ready for these changes. Thus, this unreadiness leads to inadequate knowledge and misconceptions on the effect of unprotected premarital sex, among adolescents. In Africa and Asia, for example, there is a high knowledge gap and misconceptions especially among adolescent girls (WHO, 2018).

Consequently, the outcome of these are; unwanted pregnancies, unsafe abortion and sexually transmitted infections. These outcomes in turn have adverse effect on social and economic implications for a nation at large. For example, some adolescent mothers could become school dropouts and the boys may also engage in social vices such as drugs, armed robbery and among others.

2.3.1 Abortion

It is estimated that 3.9 million girls aged 15-19 years go through unsafe abortion every year in the developing countries. About 8% of maternal mortality that occurred between 2012 and 2013, was attributable to abortion and studies showed that majority of the women were adolescent girls who sought abortion service from unskilled providers, had self – induced abortion and also delayed in seeking medical care when complications arose (WHO, 2018). (Kyilleh et al., 2018) also revealed that majority of adolescents use local preparations and herbs as abortifacients. This could be alluded to the fact that access to abortion services in most countries are highly restricted and even in countries where safe abortion care is accessible to adolescents, it is usually not adolescent friendly. Some restrictions include consent from parents and spouse and also age, marital status are some factors considered before safe abortion is performed in most countries. In Nigeria for example, 50-70% of adolescents' girls suffer from complications due to unsafe abortion (UNFPA, 1998).

2.3.2 Family Planning

Again, a study on sexual and reproductive health knowledge among adolescents in Zambia revealed that 47% of respondents had knowledge on ways to delay pregnancy. Among the various ways of delaying pregnancy, condom use was more common, followed by birth control pills whilst majority were unaware of other FP methods such as diaphragm, sterilization and implants (Ndongmo et, al 2017). Also, Abiodun et, al., (2016) findings in Eastern Nigeria, Ghana and Ethiopia support Ndongmo et al., that condom and oral contraceptive pills (OCP) were the most famous- contraceptive methods as against the long lasting contraceptive methods.

2.3.3 Sexually Transmitted Infections Including HIV/AIDS

Most adolescents lack basic knowledge on how to prevent HIV, especially in Sub-Saharan Africa. According to (WHO, 2018) adolescent girls not being able to negotiate condom use due to financial difficulty, gender issues, violence put them at risk of contracting STI's. In contrast, studies by (Olumide et al., 2016), revealed that 71.0% of adolescents (respondents) had knowledge on HIV/AIDS STI and this is attributable to the pandemic widespread of the disease throughout the world and also via awareness created by government and non-governmental organizations.

(Clark et al., 2002) findings corroborates the assertion of Olumide et. al, that HIV was the commonest STI's mentioned by adolescents in their survey. According to them, 91% of adolescents named HIV as the commonest STI's, followed by gonorrhea (77%), syphilis (65%), trichomonas infection (22%), human papillomavirus infection (22%) and hepatitis B (15%). Although HIV was the commonest STI's known by adolescents, according to Clark et al, the Centre for Disease Control and Prevention stated that C, trachomatis infection is the commonest STI in Philadelphia.

Again, the argument by Clark et al., is supported by (Samkange et al., 2011) who mentioned that a study by Gottvall et al reported that knowledge on HPV was also very low, with 5.8% and 1.1 girls and boys respectively in Sweden.

2.4.4 Emergency Contraceptives

Emergency contraception (IUD and pills) is one of the numerous methods of preventing pregnancy, but its usage requires that adolescents need adequate knowledge and access as well. This is because the effects of using and using them wrongly can have serious

implications to the health of the individual and also have effect on society at large. For example, abuse of EC pills can have negative health implications such as infertility in women. (Adusa-Poku, 2018). Again, the effect of not using EC can also lead to unintended pregnancy making adolescents girls to be school dropouts hence, becoming social misfits and increasing the economic burden of their parents and the nation as a whole.

Globally, there exist some differences in the knowledge, availability, cost and use of EC. In the US and the European countries, although teenage pregnancy is high, knowledge in EC is higher than the developing countries, especially Sub-Saharan Africa. Thus, low knowledge on EC serve as a barrier to its use. A study conducted in 45 developing countries showed that less than 3% of adolescent's girls had ever used EC and this was due to availability and cost of EC (Sujatha et al., 2016).

Furthermore, a study conducted by (Katama & Hibstu, 2014) in South Ethiopia among female adolescents in second cycle and preparatory school revealed that 94.7% had knowledge in emergency contraception. This high number of people defeat the assertion that not all countries in Sub-Saharan Africa have low knowledge. They attributed this to the fact that perhaps, because the study was conducted in a preparatory school, the students might have better information exposure.

2.4 Main sources of information regarding reproductive health among adolescents

Adolescents may receive information from various sources ranging from parents, educational bodies, religious bodies, media just to mention a few.

2.4.1 Parents

One constraining cultural communication by parents concerns the belief that adolescence is a time of separation from one's parents in order to create a sense of self and establish one's place in society (Goldberg, 2000). Parents who hold such a belief may stress their teens into doing what they (the parents) see as in the teens' best interest. Therefore, such parents assume too active a role in their children's' decisions as if it is their last chance to influence their teenagers. The children in the study typically avoided conversation and withheld information on sexual matters. The explanation for these complexities was that their daughters' wanted independence.

Goldberg, (2000) established that when parents do not allow their adolescents the chance to develop their own lives, then the adolescent might turn to others to help them develop. Davis, (2000) also noted that adolescents turn away from their parents because they think that they are supposed to make their own decisions and plan for themselves.

Furthermore, adolescents may turn away from their parents because they do not feel that their parents will be in support with what they want and therefore may judge them negatively. Generally, the separation discussion may lead both parents and adolescents to interpret relationship as being at odds with the adolescent' growing up to be his/her own. Additionally, Halpern-Felsher, (2004) reported that just as parents are unwilling about talking with their children about sex, so are the children unwilling about discussing sex with their parents. It is significant to recognize such reluctance for both parents and adolescents as lack of effective communication. The researchers identify that, adolescents at times feel that their parents do not treat them as equals and that parents lack sufficient knowledge about current adolescent lifestyles and peer pressure. Other studies have also shown that

adolescents complained that their parents are not open, helpful, truthful and sympathetic, nor do parents adequately value their (adolescents) privacy (Clawson, 2003), noted that, adolescents also express concern about sexual conversations being embarrassing to them as well as to their parents.

Mbugua (2007) noted that in Kenya one main barrier to effective sex-education between mothers and their daughters was the traditional taboos. This prevents parents from discussing sexuality with their children. She also observed that majority of the mothers (90%) had no sex-education either from their parents therefore, could not educate their own daughters on sexual issues. Similarly, (Wilson et al., 2010) in focus group discussions with parents in the United States found that the parents complained that their parents did not educate them about sex therefore it had made it difficult for them to know how to talk to their own children about sex adolescents.

Guilamo-Ramos (2010), established that gender and cultural differences had resulted in mothers' disclosing more to their daughters than to their sons. In the Latino society, mothers were more concerned with their daughters than their sons because they believe that daughters need to be protected against male sexual exploitation. The society offers men more freedom to engage in sexual activity at a younger age than women. Gender roles and sexual socialization play a vital part in Latino youth risk and prevention behaviours. At a young age, a Latino learns that 'good' women are not supposed to know about sex (Cianelli & Ferrer, 2008). This concept is consistent with 'marianismo', the idea that women are expected to follow the example of the Virgin Mary, and remain a virgin until marriage and be submissive and humble in relationships.

However, adolescents in the United States aged 15-19 years with 70% males and 78% females mentioned that at least they had once talked to their parents about sexual issues (Guttmacher Institute, 2017).

2.4.2 MEDIA

Mass media is defined as those media that are designed to be used by large audiences through the agencies of technology. Mass media targets large number of persons through radio, television, newspapers, movies, magazines and internet. The first time the media impacted on sexual behaviour was reported in 1981, and from that time, there have been reports on adolescent using media as a source of information on their sexual behaviour. Although, the mass media has advantages by providing information on adolescent sexual health, however, studies have shown that the mass media has negative influence on adolescent sexual behaviour (Asekun- Olarinmoye, et al., 2013).

Furthermore research suggest that adolescents aged 8 to 18 years spend an average of 6 to 11 hours per day with some form of media and about 24% of adolescents are online virtually all the time. This is due to accessibility of the internet on smartphones and at least 75% of adolescents have access to a smartphone. According to (Bercedo et al., 2005) the earliest age by which adolescents get their first mobile phones was 13 and by that age 40.8% had visited a pornographic web site, especially boys.

Nudity has increasingly become part of our media product where content regularly show 'sexy' women in music videos and television shows. This suggest to adolescents that such looks are trending and that they are 'normal' thus, the adolescent girl may also dress like that for others to know that she is updated and not old fashioned. Some would even desire

for plastic surgery just to look the way someone was shown on television and this can in turn influence adolescents sexual behaviour negatively.

2.4.2 Religious body/organization

Religion can influence the attitudes and beliefs of parents in terms of whether they talk to their children or not about sexual issues. Regnerus, (2005) studied religion and patterns of parent-child communication about sex and contraception and realized that the different religious affiliations present various views. Parents who affiliate with traditional Black Churches clearly appeared to talk the most and with most ease about all sex-related topics, whereas Jewish and unaffiliated parents exhibited lower levels of communication about sexual morality. Mormon parents appeared more likely to avoid conversations about birth control than most other religious types. In the same study Regnerus (2005), reported that when it comes to the importance of religious faith to the parents, the more important religion was to the parents the more frequently they talk to the adolescents about sexuality.

Swain, and Ackerman (2006), in a study explored the relationship between parents and adolescent's demographic characteristics, and parent-adolescent sexual communication, involving 1000 parents of 13 to 17 year olds using the structural equation model. The results of the study showed that religious parents reported more discussions with their adolescents about the negative consequences of sex than their liberal and non-religious counterparts. On the other hand, non-religious parents reported more discussion about where to obtain birth control than religious parents.

2.4.3 Educational institution /schools

School-based sex education can be a very important factor to affect adolescents' sexuality. There is a general agreement that formal education should involve sex education. (Asmal, 2001) observed that teachers play a formative role in the development of children's identity and sexuality. Bleakly, Hennessy, and Fishbein (2006), conducted a study on public opinion about sex education in schools in the USA. A cross-sectional survey was conducted with 1096 adults between the ages of 18 and 83 years. The outcome measures were in support of three (3) types of sex education in school: abstinence-only, comprehensive sex education and condom instruction. The results showed that 82% of the respondents supported the program that teaches students about both abstinence and other methods of preventing pregnancy, and STIs. Another 68.5% supported teaching about proper use of condoms. Abstinence-only education received the least levels of support of 36%. Many studies also found that 80% of parents in the USA, across political and religious lines, want comprehensive sex education taught to their children (Foust, & Leon., 2006).

According to Sexuality Information and Education Council of United States (SIECUS), 93% of adults surveyed in the USA, support sexuality education in High School and 84% support it in Junior High School (SIECUS, 2005). Again, 88% of parents of Junior High School students and 80% of parents of Senior High School students believed that sex education in schools makes parent-adolescent communication about sex easier (Schalet, 2004). Furthermore, 92% of adolescents indicated that they wish to talk to their parents about sex and also want comprehensive in-school sex education (Locker, 2001).

According to Mitchell, (2010) it is essential for schools to involve parents in sex education of their children. Schools need to involve parents in sex education programs so that parents

will be abreast of what their children are learning in order to complement what the school is teaching. Fentahun and Ambaw (2012), studied parents' perception, and students and teachers' attitude towards school sex education, in Merawi Town, Northwest Ethiopia. The study recruited 386 students, 94 teachers and 10 parents. Both quantitative and qualitative methods were used to collect data from participants. The findings of the study showed that 364(96.8%) of students and 93(98.9%) of teachers had a positive attitude towards the importance of school sex education. The parents admitted that the importance of school sex education is an 'unquestionable idea'. The participants in the students' part of the study 328(84.7%) and 79(84%) teachers wanted sex education in school to be started at an age not more than 15 years.

However, in the qualitative study, parents thought that sex education in schools should be introduced between ages of 7 and 12 years. Iyaniwura (2005) assessed the attitude of teachers to school-based adolescent reproductive health intervention in Saganu, Ogun State in Southwest Nigeria, using seven public secondary schools in a study. A total of 225 teachers (105 family life educators and 120 non-family life educators) were recruited. The results indicated that 87% of the teachers approved of teaching sex education to adolescent in school, 56.6% approved of contraceptive use by adolescents and 52.9% approved of condom use. The teachers showed an interest in being involved in promoting the sexual health of their students but they preferred to counsel about abstinence. The family life educators had a more positive attitude towards condom use than other teachers.

2.5 Parental roles on adolescent's sexual behaviour

2.5.1 Time factor

When to talk to children about sexuality has been a complicated issue. Few studies have observed the timing of parents and their children's discussions on sex-related topics and young people's sexual behaviour. These discussions were before the start of sexual intercourse, during the year of initiation of sexual intercourse or never discussed sex, and adolescents' condom use and the follow up sexual intercourse practices. The study recruited and interviewed 372 sexually active adolescents in New York, Alabama and Puerto Rico who were between the ages of 13 to 17 years with their mothers. The findings of the study showed that mother-adolescent discussions about condom use took place before the initiation of first sexual intercourse.

In a longitudinal study, (Beckett et al., 2010) assessed the timing of parent-adolescent discussion about sexual topics relative to child-reported sexual behaviour. About 141 parents with their adolescents aged 13 and 17 years were enrolled. It was realized that more than one third of parents had discussed 14 out of the 24 sex related topics with adolescents before they started exploring sex.

Moreover, more than half of the adolescent boys had not discussed 16 out of the 23 sex-related topics with their parents by the time genital touching (developmental milestone) occurred. The findings of the study showed that more than 40% of the adolescents have had sexual intercourse before any discussion by parents about sexually transmitted infection symptoms, condom use, choosing birth control and partner condom refusal. This could lead to unplanned pregnancy, contraction of sexually transmitted infections and illegal abortions among the adolescents. (Wamoyi et al., 2010), observed that parents in Tanzania prefer to

communicate with their adolescent daughters in secondary school rather than primary school partly because of the high costs of taking care of a child in the secondary school.

Parents would not want to lose their girls when they have to drop out of school as a result of pregnancy. Parents also talked to their daughters when they saw and heard something negative that they would not like to happen to their children, such as death from HIV or pregnancy of unmarried adolescents. Parents also took advantage of naturally occurring events like hearing of a daughter's best friend having a date or watching a television programme together to talk about sex-related topics (Lefkowitz & Stoppa, 2006). (Wilson et al., 2010), indicated that parents in three cities in the United States believed that their children should be educated about sex during the primary school years (between the age of 10 to 12 years).

This is because they think that children are already exposed to a lot of sex issues and are likely to know more than their parents think. The education of children in this age group might be possible because the level of education of the parents in the study was higher than the average in the United States; 42% of the parents had at least a college degree. Kakavoulis (2001) indicated that Greek parents felt that sex education to their children should start at an early age.

Some 64% of the parents thought that sex education should start during the primary school years. Walker (2001) affirmed that parents would like their children to be educated on sexual topics as early as 10 years or younger but (Eisenberg et al., 2006) pointed out that parents might wait to talk to their adolescents about sexuality until they believe that the children are in romantic relationships. Izugbara (2008), revealed that in Nigeria, most of

family sexuality discussions were not on time. They were often discussed after children had reached puberty or had already begun to engage in sex.

According to the participants of this study, the main reason why parents delayed education on sex until puberty was that until puberty, children were thought to be sexually innocent. Parents also feared that talking about sexual issues with children earlier than puberty may encourage sexual imaginations among them. Again, parents in the study had the view that puberty is the period in which the interest of young people in sex bloomed. One parent affirmed that talking to children about sex before puberty ‘may make them think that sex is one very important thing. They may even want to experience with it, and this could be dangerous.

Furthermore, parents in Izugbara’s study talked to their children about sex following certain cues about their children’s likely sexual behaviour such as their sudden or increased attention to their looks, being seen in the company of boys or men (in case of girls) or girls (in case of boys) and coming back home late. Other warning signs were being found with love letters or explicitly erotic materials like pornographic films, books and magazines. Additionally, parents also initiate talking about sex with their children as a result of receiving reports from neighbours, teachers and other gatekeepers regarding their children’s involvement or suspected involvement in sexual activity. Parents in a focus group discussions mentioned that they started talking to their children early about topics like the anatomy of boys and girls and reproduction when the children were very young. The discussion gradually developed to include a broader range of topics and this made it easier for them to discuss sexuality with their children (Wilson et al., 2010). Other parents admitted that they used available resources that helped them to talk to their children about

sex. These resources included books, classes for parents, classes for children, TV programmes, other parents as resource persons and materials from children's sex education classes in school (Wilson et al., 2010).

2.5.2 Parent- adolescent communication on specific topics related to sexuality

In a current statewide investigation on families with children, Jerman and Constantine (2010) found that the larger part of parents in California announced experiencing issues in conversing with their children about particular themes identified with sexuality and sex. Parents most usually revealed troubles identified with humiliation or tension, general correspondence issues, and discussions about particular themes (e.g., masturbation, safe sex rehearses).

In this same examination parents and youths were inquired as to whether they had talked about any of the accompanying sex subjects: human multiplication, issues in getting to be sexual dynamic, the benefits of youngsters keeping away from sexual conduct, HIV/Helps or STIs, significance of utilizing assurance, and where to get condoms (Jerman and Constantine, 2010).

Results demonstrated that 15% did not talk about any of the subjects and just 26% examined each of the six themes. Among the individuals who talked about just a few points, human generation, HIV/Helps or STIs, and evading sex were the most regularly detailed. Significance of utilizing assurance, where to get condoms, and issues in winding up sexually dynamic was the slightest examined by guardians. In another investigation (Raffaelli and Green 2003) additionally found that guardians appeared to maintain a strategic distance from coordinate dialogs about utilizing anti-conception medication since it would require

more information about sexual conduct and guardians dreaded it might prompt individual exposure of their own past encounters.

Furthermore, a study by (UNICEF, 2016) in East and Southern Africa reported that social norms serve as a hindrance between parent-adolescent sex talk thus, majority of them are ignorant and vulnerable. Consequently, resulting in early sexual debut, high pregnancy rates and high STI's among adolescents.

2.5.3 Parent- adolescent monitoring

Parental monitoring is defined as a set of strategies used to gain knowledge about an adolescent's whereabouts, their friends and associates and their activities (Beth, 2011). Because knowledge on activities and whereabouts could be monitored by time and place, parents are often aware of the above as compared to knowing adolescent's friendships since children may change their friends as they transit into adolescence (Tilton-Weaver and Marshall, 2008). A typical example is when adolescents leave junior high school and go to the boarding house during their senior high education and also in the tertiary where adolescents meet new classmates. During these stages of the adolescent lives, it becomes quiet difficult for parents to have knowledge on adolescent's friendships. A study in Ghana, Burkina Faso, Uganda and Malawi by (Biddlecom, et al., 2004) revealed that parent adolescent monitoring is moderately higher than parent adolescent communication

Furthermore, adolescents are more likely to make decisions and experiment when adult supervision is minimal. The experimentation could lead to having new opportunities that are beneficial and sometimes risky. When the benefits are overvalued and the risk undervalued, the adolescent would be vulnerable to engaging in risky behaviours such as unprotected

sexual activity, multiple partner, substance abuse, among others (Kobak et al., 2015). In contrast to Kobak and his colleague's argument, Baverander (2015) in his studies argues that adolescents with minimal supervision would certainly be affected adversely. Rather, monitoring should be combined with an authoritative parenting style to have risk free behaviour. In addition to his argument, he added that authoritative parenting should involve high levels of warmth and support combined with firm limit setting, supervision and open communication. A study by (Ying et. al., 2015), revealed that Chinese parents not only exert greater supervision on their children but also provide care to them. According to them, parental supervision and control should be coupled with autonomy-granting because research has suggested that parental autonomy granting, other than parent control would promote adolescents' honesty and facilitate mutual trust.

Looking at Baverander and Ying and his colleague's arguments, their views on adolescent-monitoring contradict, however both have their own advantages and disadvantages. That notwithstanding, parents should first and foremost know their children's temperament before choosing a parenting style for easy parent-adolescent communication. Again, Ying and his colleagues believe supervision should be combined with autonomy granting which in turn would lead to connectedness and parent-adolescent trust. Sattin and Kerr (2000) agrees to Ying and his colleague's argument by revealing in their studies that children would engage in more delinquent behaviours that parents may be unaware when they see parental monitoring as disturbing and overly controlling.

Also, parental involvement with a child's media use may be very important since it can help establish healthy behaviour. Monitoring children's media choices does not mean banning him or her from watching, rather being aware of what the child's take in. and also limiting

how much he watches. It is best for parents to talk about media usage to their children regularly, not sometimes (Raising Children Network, 2017). A study by (Connell et al., 2015) on how parents mediate children's media consumption found that Asian parents limited the time their children spent with TV and video games whilst Hispanic parents limited their children the least. (Ogpenhaffen et al., 2012) reveal that there are three different parenting styles in television mediation. These are; co-viewing, instructive and restrictive. They reveal that parents often resorted to the restrictive style. In addition, they indicated that teens in the study reported another style called inhibitive which means not doing anything and reported that as the most frequent parental mediation. The close supervision of adolescents naturally reduces the occurrence of risky sexual behaviour that could impact negatively on adolescents' health and well-being (Guilamo et al., 2010).

Although, media exposition has become part of us, parents should help their children know what to pay attention to. By so doing, Parents would know the content of videos or audio their children watch or listen on mobile phones. After knowing what the child watches or listens to, parents can talk to their children about the media message by asking them questions and also allowing them to make suggestions, then, parents could use such opportunity for sex education. Professionals and the society at large should be interested in educating adolescents on media consumption. Since media has an influence on adolescent sexual behaviour.

2.6 Sexual behaviour of the adolescents

For many adolescents, sexual activity may start earlier than permitted by law (Klettke & Mellor, 2012, Yarrow et al., 2014); in the USA, for example, 62% of students were reported

to have engaged in sexual activity before leaving High school and in many instances, young people may initiate sexual relations before the age of 14 years (WHO, 2011). According to Alan Guttmacher Institute (2002), 6 of 10 adolescent women and 7 of 10 men have had sexual intercourse by age 18. Early and unsafe sexual intercourse can have lifetime and life-threatening effects on adolescents. 1 million adolescent women become pregnant and about 4 million new sexually transmitted infections are diagnosed annually in the United States.

In Nigeria, studies on adolescent sexual behaviour have indicated different risky sexual behaviours while a continuous decrease in the age of sexual debut (Okonofua et al., 2000). Per the UNAIDS (2006) report, adolescents in Nigeria initiate sexual intercourse before reaching the age of 16 and also engage in high risk sexual behaviours such as unprotected sex and multiple sex partners. These risky behaviours are likely to result in sexually transmitted infections and unintended pregnancies which they may not have the capacity to handle due to their age. Incidentally, the bond between parents and adolescent have proven to have significant impacts on adolescent sexual behaviour. The social cognitive theory stipulates that children who adhere to their parent's values successfully are less likely to accept peer behaviours that are inconsistent with what they have been told at home. This means that adolescents may not necessarily engage in risky sexual behaviour if parents are more open, appreciate challenges faced by adolescent and use reasoning and explanations rather than power to control adolescents. Other literature recommends that if guardians are offered support to build up the characteristics of parental responsiveness, they can and will speak with their youngsters about sexuality.

According to (Guttmacher Institute, 2018) 16% and 10% of females and males respectively reported that their last sex was without contraceptive. Although condom use was more

common among adolescents in the developing countries, its usage decreased from 59% in 2013 to 54% in 2017 among high school students in the United States and this was the period STI's experienced a rise.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter describes the methods employed in the collection and analysis of data. A research method is a set of systematic procedures for conducting a study so as to get the most valid findings. It sought to explain various scientific methods used in achieving the study objectives.

3.2 Study methods and design

The study was a community-based study which involved adolescents aged 10 to 19 years who resided in the Bantama-metro. A cross sectional study design was employed using quantitative method. Data was gathered using structured questionnaire. The study adopted probability sampling where six (6) communities were sampled from twelve (12) communities in the Bantama-metro. Simple random sampling was used in selecting participants for the study.

3.2 Data collection techniques and tools

Data on parental influence on adolescent sexual behavior was collected with the aid of a structured questionnaire in six (6) communities of the Bantama-metro. The questionnaire had both close and open ended questions. It had sections to elicit socio-demographics of respondents, socio-economic status of adolescents, adolescent's knowledge on sexual and reproductive health, sources of information regarding sexual and reproductive health, parental roles and contributions, and sexual behavior. Three (3) trained data collectors administered the questionnaires to eligible participants who consented to be part of the study.

3.3 Study population

The study population included adolescents in the Bantama- metro in the Ashanti Region. Estimated population of adolescents in the Bantama- metro is 127,661 (Ghana Statistical Service, 2010).

3.3.1 Inclusion and Exclusion criteria

Inclusion criteria:

- All adolescent between the ages of ten (10) to nineteen (19) years
- All adolescents who resided in the Bantama catchment area

Exclusion criteria:

- People who were below the ages of ten (10) and those above nineteen (19) years
- Adolescents who were not residents in the Bantama catchment area.

3.4 Study variables

A variable is defined as anything that has a quantity or quality that varies. There are two types of variables, they are; dependent and independent. For this study, the dependent variable is adolescent sexual behaviour whilst the independent variables are;

- Source of information on sexual and reproductive health among adolescents
- Knowledge on sexual and reproductive health and contraceptive usage
- Sexual behaviour

Table 3.1 shows the variables, their operational definitions and scales of measurements.

VARIABLES	TYPE OF VARIABLE	OPERATIONAL DEFINITION	SCALE OF MEASUREMENT
Socio-economic status	Independent	Is a composite measure of an individual's economic and sociological standing	Ordinal
Source of information on sexual and reproductive health	Independent	An information source is a person, thing. Or place from which information comes or is obtained.	Nominal
Knowledge on sexual and reproductive health and contraceptive usage	Independent	Adolescent's awareness and patronage of family planning methods	Nominal
Sexual behaviour	Dependent	How sexuality is expressed or demonstrated	Nominal

3.5 Sampling Size and Sample Techniques

A two stage sampling technique with simple random at each stage to obtain participants. At the first stage, simple random sampling will be used to sample participating communities and then at the second stage of sampling, participants will be randomly sampled from their selected communities.

The sample size is calculated using the prevalent formula of $n = Z^2 * p(1-p) / M^2$ (Cochran, 1977).

Where n is Sample Size, Z (Z-Score) is the normal standard deviation set at 1.96, confidence level specified at 95%, M is the tolerable error margin (d) at 5%, and P is the Population Proportion assumed to be 50% or 0.50.

$$n = 1.96^2 * 0.50(1-0.50) / 0.05^2$$

$$n=3.8416*0.25/0.0025$$

$$n=384.16$$

Adjusting the estimated sample size to the required Population of 127,661, representing the total number of adolescents in Bantama- metro

Adjusted Sample (n) = $n/1 + [n-1]/\text{Population}$

$$N=384.16/1 + [384.16-1]/127,661$$

$$N=383.16$$

$$N=383$$

The sample size will be 383 and this will be 5% adjusted to accommodate for a possible data loss. Thus, final minimum sample size will be 402.

3.6 Pre- testing

Fifteen (25) of the questionnaires were pre – tested among adolescents who resided in (Ampabame) one of the communities in the Bantama-metro to identify any problem such as unclear wording or questionnaire taking too long to administer.

3.7 Data handling

Data were stored electronically as well as through non- electronic means. Data was stored on two separate laptops and a backup on 2 external hard drive, so that information could easily be recovered when the original device becomes compromised. Data was also protected by installing an operating system update on the computer to prevent the computer from discovering any threat and also by password. This was to prevent data from being lost or altered. This was because of confidentiality and preservation of research data.

3.8 Ethical statement

Although the objective of the study had no harmful effects, ethical approval was sought from Kwame Nkrumah University of Science and Technology Ethics Review Board and permission was obtained from the Bantama-metro and Health Directorate. Informed consent was sought from the parents/ guardians of adolescent who were below 18 years of age and consent from adolescents who were 18-19 years. Respondents, were assured of confidentiality and anonymity and they were also made aware of the content and rationale of the study. Respondents were given opportunity to opt out of the study at any point in time they wanted to do so.

3.9 Limitations

Factors that obstructed the smooth achievement of the objectives of this research are that;

- Some potential respondents wanted compensation for the time spent on responding to the questionnaire and that took some time,
- Dishonesty on the part of respondents in answering questions related to sex
- Some parents/guardian did not allow their adolescent child to participate since the topic is sexual related.

3.10 Assumptions

- Proportion of adolescent population in the Bantama-metro is assumed to be 50%

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

The chapter presents result on assessing parental influence on adolescent sexual behaviour in Bantama-Metro in the Ashanti Region. The presentation of findings is in tables and figures preceded by a narration.

4.2 Demographic Characteristics of Respondents

The socio-demographic respondents' covers age, gender, educational status, marital status, ethnicity, family size, living arrangement and place of residence. Four hundred (400) respondents participated in this study. Out of the 400 respondents, 194 (48.50%) were males and 206 (51.50%) were females. The age distribution of the 400 respondents ranged from 10 years to 19 years with a mean age and standard deviation of 15.31 and 2.63 which is approximately 15 years and 2 and a half years respectively. Majority, 250 (62.50%) fell in the 15 to 19 age group and the minority fell in the 10 to 14 age group. More than three-quarters 342 (85.50%) of the respondents were Christians and 2 (0.50%) of the respondents were traditionalist. Majority 181 (45.25%) were in Junior High School (JHS) and the minority 5 (1.25%) were not schooling. More than three-quarters, 351 (87.75%) were single, 10 (2.50%) were married and 39 (9.75%) were co-habiting. Less than three-quarters, 289 (72.25%) were Akans, 27 (6.75%) were Ewes and 75 (18.75%) were Northerners and the minority, 9 (2.25%) belongs to other ethnicity.

One hundred and eighty-five representing 45.50% lived with both parents, 101 (25.25%) lived with single parent (mother only), 25 (6.25%) lived with single parent (father only), 76 (19.00%) lived with relatives and 16 (4.00%) lived with other people. Most, 154 (38.50%) of the respondents lived in rented apartment, 128 (32.00%) lived in their parents' house, 97 (24.00%) lived in compound house and 21 (5.25%) lived in other places. Most 195 (48.75%) have a family size of 4 to 7 members, 94 (23.50%) have a family size of 1 to 3 members, 87 (21.75%) have a family size of 8 to 10 members and the least 24 (6.00%) lived with a family size of 11 and above members.

Table 4.1: Demographic characteristics of respondents

Variable	Frequency (N=400)	Percentage (%)
Age group		
- 10-14 years	150	37.50
- 15-19 years	250	62.50
Mean (SD)	15.31 (± 2.63)	
Gender		
- Male	194	48.50
- Female	206	51.50
Religion		
- Christian	342	85.50
- Islam	49	12.25
- Traditional	2	0.50
- Others	7	1.75
Educational status		
- No school	5	1.25
- Primary	66	16.50
- JHS	181	45.25
- SHS	134	33.50
- Tertiary	14	3.50
Marital status		
- Single	351	87.75
- Married	10	2.50
- Co-habiting	39	9.75
Ethnicity		
- Akan	289	72.25
- Ewe	27	6.75
- Northerner	75	18.75
- Others	9	2.25
Family Size		
- 1-3	94	23.50
- 4-7	195	48.75
- 8-10	87	21.75
- 11 and above	24	6.00

Whom do you live with

- Both Parents	182	45.50
- Mother only	101	25.25
- Father only	25	6.25
- Relatives	76	19.00
- Others	16	4.00

Place of Residence

- Parent's own House	128	32.00
- Compound house	97	24.25
- Rented Apartment	154	38.50
- Others	21	5.25

Field findings, 2018**4.3 Adolescents' Knowledge on Sexual and Reproductive Health**

Based on the analysis on adolescent knowledge on sexual and reproductive health, majority 269 (67.25%) had high knowledge on the use of condoms while 61 (15.25%) had low knowledge on the use of condom, about 70 (17.50%) had no knowledge on condom use. Only 131 respondents out of 400 had high knowledge on birth control methods, 185 (46.25%) do not have any knowledge on birth control pill while 84 (21.00%) had low knowledge on birth control, majority 233 (58.25%) had high knowledge on STI's including HIV/AIDS while 72 (18.00%) had low knowledge on STI's including HIV/AIDS, and 95 (23.75%) had no knowledge on STI's including HIV/AIDS. Two in five of the participants had high knowledge on family planning services (40.50%), 66 (16.50%) of the participants had low knowledge on family planning services while a little close to half of the participants (43.00%) had no knowledge on any family planning services; About 136 (34.00%) of participants had high knowledge on emergency contraceptives while more than half of the participants had no knowledge on emergency contraceptive (52.75%). More than half (52.75%) of the participants had no knowledge on abortion services, as shown on table

4.2

Table 4.2: Adolescents' Knowledge on Sexual and Reproductive Health

Sexual and productive health	High N (%)	Low N (%)	Not at all N (%)
Knowledge on the use of condoms	269 (67.25)	61 (15.25)	70 (17.50)
Knowledge on birth control pill	131 (32.75)	84 (21.00)	185 (46.25)
Knowledge on STI's and HIV/AIDS	233 (58.25)	72 (18.00)	95 (23.75)
Knowledge on abortion services	211 (52.75)	84 (21.00)	105 (26.25)
Knowledge on family planning services	162 (40.50)	66 (16.50)	172 (43.00)
Knowledge on emergency contraceptives	136 (34.00)	59 (14.75)	205 (51.25)

Field findings, 2018

4.4 Main Sources of Reproductive Health Information among Adolescents.

The study revealed that, 245 (61.25%) of the respondents never received any source of information from their father and 24 (6.00%) always receive information on reproductive health, 139 (34.75%) of the respondents had never received any information from their mother on reproductive health and 57 (14.25%) always receive their information from their mother, 211 (52.75%) never receive information from their family members and 22 (5.50%) often receive information from a family member, majority 233 (55.75%) never received their information on media and 18 (4.50%) often receive their information from media, most 151 (37.75%) never received information from school and 41 (10.25%) often receive their information from school, 164 (41.00%) never received information from church and 51 (12.75%) always receive information from churches and 92 (23.00%) never receive their information from peers but the majority 105 (26.25%) always receive information on sexual and reproductive health from peers. (Table 4.3).

Table 4.3: Main Sources of Reproductive Health Information among Adolescents

Source of information	Never N (%)	Once N (%)	Sometimes N (%)	Always N (%)
Father	245 (61.25)	57 (14.25)	74 (18.50)	24 (6.00)
Mother	139 (34.75)	60 (15.00)	144 (36.00)	57 (14.25)
Family member	211 (52.75)	82 (20.50)	81 (14.75)	26 (6.50)
Media	223 (55.75)	85 (21.25)	60 (15.00)	32 (8.00)
School	151 (37.75)	80 (20.00)	117 (29.25)	52 (13.00)
Church	164 (41.00)	83 (20.75)	102 (25.50)	51 (12.75)
Peer	92 (23.00)	46 (11.50)	157 (39.25)	105 (26.25)

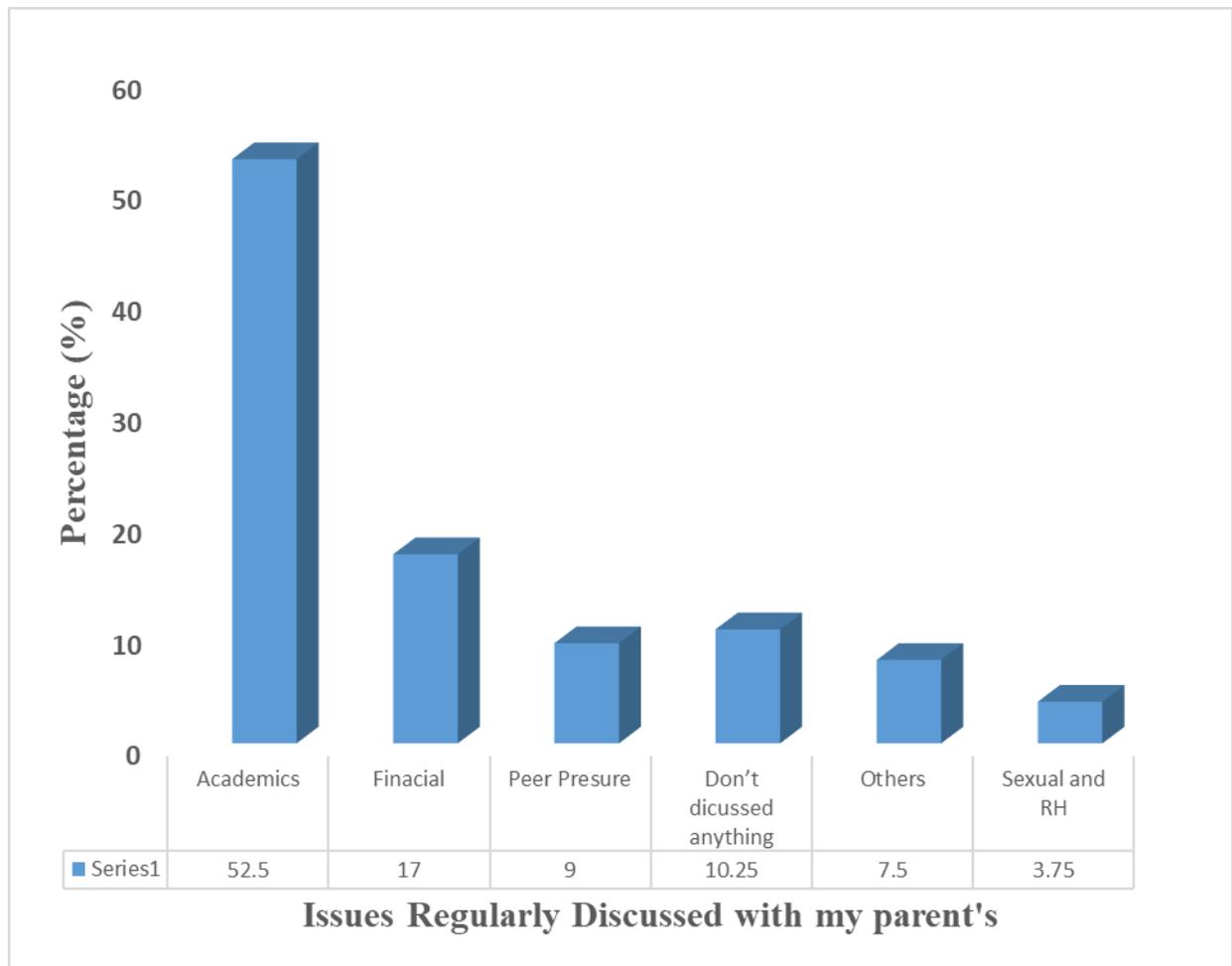
Field findings, 2018

4.5 Parental roles that influence sexual behaviour of adolescent

Issues Regularly Discussed with Parents

Figure 4.3.5 displays issues adolescents/respondents discuss with their parents, the study found that more than half (52.50%) of the respondents discuss academic related issues with their parents few (3.75%) discuss issues on sexual and reproductive health with their parents. (Figure 4.4).

Figure 4.1: Distribution of Issues Discussed with Respondents (Adolescents) parents



Field findings, 2018

Parental roles that Influence Adolescent Sexual Behavior

Majority 231 (57.75%) of respondents parents regularly control their movement 60 (15.00%) of the respondents parents never regulate their movement, 195 (48.75%) of the respondents parents monitor the kind of friends they associate their selves with and 80 (20.00%) of the respondents parents never monitor the kind of friends they associate with, most 209 (52.25%) of the respondents parents provide them with financial needs whiles 46

(11.50%) never provide their child with financial needs, 170 (42.50%) respondents once in a while discuss issues of sexual health with their parents while 93 (23.25%) regularly communicate with their parents on issues on sexual health, 152 (38.0%) of the respondents said there are regular rules their parents use to control them while 118 (29.50%) said once a while and majority 170 (42.50%) of the respondents said they hide a lot of information about their life from their parents while 114 (28.50%) of the respondents regularly hide a lot of information about their life from their parents. (Table 4.2.3).

Table 4.4: Parental roles that Influence Adolescent Sexual Behavior

Parental practices or roles	Regularly N (%)	Once in while N (%)	Never N (%)
My parent controls my movement	231 (57.75)	109 (27.25)	60 (15.00)
My parent monitors the kind of friends I associate myself with	195 (48.75)	125 (31.25)	80 (20.00)
My parents provide me with my financial needs	209 (52.25)	145 (36.25)	46 (11.50)
I am able to communicate with my parent on issues of sexual health	93 (23.25)	170 (42.50)	137 (34.25)
There are rules in the house which my parent (father/mother) use to control me	152 (38.00)	118 (29.50)	130 (32.50)
I tell my parent (father/mother) a lot about the things going on in my life.	119 (29.75)	162 (40.50)	119 (29.75)
I hide a lot of information about my life from my parent (father/mother)	114 (28.50)	170 (42.50)	116 (29.00)

Field findings, 2018

4.6 Sexual behaviour of the Adolescents

The study found that, more than half 247 (61.75%) had never had sex before, out of the respondents who have had sex, majority 81 (52.94%) had had sex for the last six months, for respondents who had sex for the last six months, majority 65 (80.25%) used contraceptive,

and the contraceptive used, 50 (76.54%) condom was the most common. Most 62 (76.54%) had had sex with only one person while 8 (9.88%) had had sex with three or more persons. Majority 43 (53.09%) had engaged in sex with males (i.e. the females who had sex) and 38 (46.91%) had engaged in sex with female (i.e. the males who had sex). (Table 4.5)

Table 4.5: Sexual behaviour of the Adolescents

Variable	Frequency (N=400)	Percentage (%)
Ever had sex		
- Yes	153	38.25
- No	247	61.75
Had sex for the last six months		
- Yes	81	52.94
- No	72	47.05
If yes did you use contraceptive		
- Yes	65	80.25
- No	16	19.75
Type of Contraceptive		
- Condom	50	76.92
- Oral	15	23.08
Number of sexual partners		
- One	62	76.54
- Two	11	13.58
- Three and above	8	9.88
Gender Engage in sex with		
- Male	43	53.09
- Female	38	46.91

Field findings, 2018

Out of the 153 respondents who had sex, 94 (61.44%) not all have they had oral sex but oral sex was more common to 2 (1.31%), vaginal sex was common to 51 (33.33%) but 16 (10.46%) not at all have they had vaginal sex, 88 (57.52%) of the respondents sometimes

used condom whiles 10 (6.54%) used condom more common, 85 (55.56%) used control pills more common. Majority 72 (47.06%) engaged in any other sexual touching more common whiles 24 (15.69%) of the respondents not at all engage in any other sexual touching. (Table 4.6).

Table 4.6: Sexual behaviour's Respondent associated with themselves

Sexual behaviour	Not at all	Sometimes	Common	More common
I had oral sex	94 (61.44)	46 (30.07)	11 (7.19)	2 (1.31)
I had vaginal sex	16 (10.46)	37 (24.18)	51 (33.33)	49 (32.03)
I used condom consistently	44 (28.76)	88 (57.52)	11 (7.19)	10 (6.54)
I used birth control pills consistently	58 (37.91)	0	10 (6.54)	85 (55.56)
I engage in any other sexual touching	24 (15.69)	30 (19.61)	27 (17.65)	72 (47.06)
I had engaged in any unprotected sex	60 (39.22)	0	37 (24.18)	56 (36.60)

Field findings, 2018

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

This chapter presents discussions of the key findings of this research. The results of the research are compared with existing literature and areas where they corroborate or contradict.

5.2 Demographic Characteristics of Respondents

The finding of this study showed that females (51.5%) were in the majority as compared to the male (48.5) adolescents. The study sample has a similar population distribution in Ghana in which females represented (51.2%) and males (48.8%) according to Ghana Statistical Service, 2010. Majority (62.5%) of respondents who fell within the ages of 15 to 19 were in the junior high school (45.3%) and were single (87.8%). Hence, only few of the respondents (12.3%) were married/cohabiting. Nearly all respondents were Christians (85.5%) and it depicts that the main religion in Ghana is Christianity which is 71.0% (Ghana Statistical Service, 2019)

It also emerged that 48.8% of respondents belonged to a family of between 4-7 members and almost half (45.5%) of respondents lived with both parents.

5.3 Adolescents' Knowledge on Sexual and Reproductive Health

The study assessed adolescents' knowledge on condom use, birth control pill and emergency contraceptives, STI's including HIV/AIDS, abortion and family planning services. Nearly all the respondents had high knowledge on the use of condoms than long lasting family

planning services. The finding is consistent within studies conducted by Ndongmo *et al.*, (2017) of Zambia and Abiodun *et al.*, (2016) of Eastern Nigeria, Ghana and Ethiopia in which respondents reported high knowledge on condom use as against long lasting family planning services. High knowledge of adolescents on the use of condom may account for the short supply of the commodity during festive seasons.

Despite, the fact that many studies report that knowledge on condom is high in Sub-Saharan Africa, Katama & Hibstu (2014) findings is in contrast with these studies. In their study, majority (94.7%) of respondents in South Ethiopia had knowledge on EC. In fact, one would not anticipate to see this huge number of adolescents in a Sub-Saharan Africa country since many studies report otherwise. However, they attributed this to better information exposure and communication that school adolescents have nowadays. It could also be attributable to the difference in the study population (females) and the location (school) as well.

Moreover, it was not surprising to find a little more than half (58.3%) of the respondents having high knowledge on STI's including HIV/AIDS. This is likely to be as a result of sexuality education taught in Basic Science and Biology. A similar but higher number of respondents (91%) reported high knowledge on HIV/AIDS by a study conducted by (Clark *et al.*, 2002) However, (WHO, 2018) reported that majority of adolescent in Sub-Saharan Africa lack basic knowledge on HIV/AIDS.

Furthermore, majority (52.8%) of respondents having high knowledge on abortion services commensurate with the findings of the Ghana Demographic and Health Survey (2014), which estimated that, Southern young girls and women are more likely to have knowledge on abortion services than their Northern counterparts.

5.4 Main Sources of Sexual and Reproductive Health Information among Adolescents.

One would expect that the rise in sexual activity in our society, would prompt parents to always receive information on sexual issues to their adolescent children but respondents (26.3%) always rely on their peers for sexual information. Thus, only (6.0%) and (14.3%) of respondents always get sexual information from fathers and mothers respectively. In a study by Sexuality Information and Education Council of United States (2005), majority of adults (93.0%) preferred sex education in schools. The fact that respondents' parents (61.3% father and 34.8% mother) have never engaged their children in sexual issues calls for worry and thus account for the rate over 17.0% teenage pregnancy in the Bantama- metro (Akumoa- Boateng, 2012).

5.5 Effect of parental role on adolescent sexual behaviour

Parents are the immediate contact in health-related issues including sexual reproductive and health rights affecting young adolescents. However, that seems to be apparent false in most parts of Sub-Saharan Africa. Discussing sexual reproductive and health rights is often frowned upon in local settings. This was evident when the findings from this study revealed that, only academic related issues (52.5%) are regularly discussed between parents and their young adolescent than sexual reproductive health issues (3.8%). This is not different from a similar study conducted in Ghana, Ugandan, Malawi and Burkina Faso by Biddlecom *et al.*, (2004) in which their findings reported of moderate to high parental monitoring but low parent-adolescence communication about sexual issues.

Parent tend to monitor their children as they progress into adolescent life. Because knowledge on activities and whereabouts could be monitored by time and place, parents are

often aware of the above as compared to knowing adolescent's friendships since children may change their friends as they transit into adolescence (Tilton-Weaver and Marshall, 2008).

In this study, majority 231 (57.8%) of respondent's parents regularly control their movement and monitor the kind of friends they associate themselves with.

It is believed that supervision combined with autonomy granting turn to lead to connectedness and parent-adolescent trust (Ying *et al.*, 2015). However, that seems to be case always, the results of this study revealed that majority of adolescents tend to hide a lot of information about their life from parents especially when they feel like they are being restricted (over monitored).

A handful of adolescents sometimes have a conversation with their parents about sexual health issues (23.3%) as uncovered in this study and as replicated in a study by East and Southern Africa by (UNICEF,2016) where cultural norms limit sexual talks by parents, resulting in widespread adolescence ignorance and vulnerability. this has given birth to the early sexual debut and high pregnancy rate. Mostly, parents often take advantage on pertaining issues such as increased rate of unintended pregnancies, drug abuse to give advice to their wards.

5.6 Sexual behaviour of the adolescent

For many adolescents in many parts of the world, sexual activity may start earlier than permitted by law (Kittke & Mellor, 2012, Yarrow *et al.*, 2014). However, more than half of adolescents (61.8%) had never had sex before at the time of the study. This result contradicted with a study conducted in the United States, where 62.0% of students were

reported to have engaged in sexual activity before leaving High school and in many instances, young people may initiate sexual relations before the age of 14 years (WHO, 2011).

The study also found out that overwhelming proportion of adolescents that had ever had sex have actually had sex for the last six months with contraceptive, and condom was the most contraceptive used among adolescents. The finding of this study is contrary to a study conducted in Nigeria by UNAIDS (2006), where it was accounted unprotected sex among adolescents that have had sex prior to the study. It however, commensurate with a systematic review by Guttmacher Institute, (2018) that found that condom use was high among adolescents in developing countries.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Adolescents' knowledge on condom use, birth control pill, STI's including HIV/AIDS were found to be high in this study. Their main sources of sexual and reproductive health information were from their peers and occasionally from their mothers. Parents regularly control the movement of their children including the type of friends they hung out with. They rarely discuss sexual issues except academic related or trending community sexual health problem. Overwhelming proportion of adolescents that had sex for the last six months at the time of the study did that with a contraceptive, preferably with a condom. A clear indication of a less- risky sexual behaviour exhibited by most adolescents in the Bantama metro.

6.2 Recommendations

1) Parents

- a) Should take it as part of their responsibility to educate the adolescent especially, the girl child on sex and sexual issues. This would limit over reliance of information from their peers.
- b) Should again adopt strategies that would enable them have cordial relationships with their adolescent children. If this is done, adolescents would feel comfortable to discuss sexual issues with them. Some strategies may include; parents using their life experiences in the form of storytelling, making time together to visit the adolescents' friends, saying "hello" to their friends on phone and among others.

3) Ghana Health Service

- c) Should prioritise adolescent's sexual and reproductive health as it is done for maternal and child health. For example, having outreach programs on SRH.
- d) Should intensify their education on long lasting family planning services and emergency contraceptive pills for adolescents and reduce their focus on only married couple. For example, some of their television adverts should include adolescents.
- e) Should have confidential adolescent-friendly clinic services

Schools;

- f) Comprehensive health education about sexual and reproductive health should be infused into the school curriculum to enable adolescents have adequate knowledge on sexual issues.

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APPENDIX
KWAME NKURUMAH UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF POPULATION, FAMILY & REPRODUCTIVE HEALTH

TOPIC: PARENTAL INFLUENCE ON ADOLESCENT SEXUAL BEHAVIOUR IN THE
BANTAMA METROPOLIS

Consent form for parents/Guardians

Hello, my name is Josephine Fiagbey. I am from the Department of Population, Family & Reproductive Health, School of Public Health, Kwame Nkrumah University of Science & Technology. I am undertaking a study on parental influence on adolescent sexual behaviour in the Bantama Metropolis and would like to elicit some information from your ward to help in achieving the purpose of the study. I would be much grateful if you grant your ward permission to participate in this study by responding to questions that would be asked in the study. The purpose of this study is solely for academic work, therefore, whatever that will be discussed with your ward will be solely used for the study and no third party will have access to the information. Also, there will be no form of identification because his or her actual name(s) will not be used. He or she also has the right to withdraw from the process of the interview at any point in time.

Kindly sign or thumbprint in the space that is provided below, if you are ready to grant permission for your ward to participate in the study. Thank you for your consent and cooperation.

Parent's signature or thumbprint.....

Date.....

Researcher's signature.....

Date.....

KWAME NKRUMAH UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF POPULATION, FAMILY & REPRODUCTIVE HEALTH

TOPIC: PARENTAL INFLUENCE ON ADOLESCENT SEXUAL BEHAVIOUR.
IN THE BANTAMA METROPOLIS

Assent Form for Adolescents

My name is Josephine Fiagbey. I am from the Department of Population, Family & Reproductive Health, School of Public Health, Kwame Nkrumah University of Science & Technology. I am undertaking a study parental influence on adolescent sexual behaviour in the Bantama Metropolis and would like to elicit some information from you to help in achieving the purpose of study. I would be much grateful if you participate in this study by responding to questions that would be asked in the study. The purpose of this study is solely for academic work, therefore, whatever that will be discussed with you will be solely used for the study and no third party will have access to the information. Also, there will be no form of identification because your actual name(s) will not be used. You also have the right to withdraw from the process of the interview as and when you think you cannot continue.

Kindly sign or thumbprint in the space that is provided below, if you are ready to participate in the study. Thank you for your consent and cooperation.

Respondent's signature or thumbprint.....

Date.....

Researcher's signature.....

Date.....

Participant ID.....

QUESTIONNAIRE

SECTION A: SOCIO-DEMOGRAPHIC DETAILS OF RESPONDENTS

Instructions: Please tick (✓) in the spaces provided that indicates your circumstance.

1. Sex: a. Male [] b. Female []
2. Age:
3. Religion: a. Christianity [] b. Islam [] c. Traditional [] d. others []
4. Level of Education: a. Primary [] b. JHS [] c. SHS [] d. Tertiary []
e. none []
5. Family size a.1-3 [] b. 4-7 [] c. 8-10 [] d. 11 and more []
6. Ethnicity a. Akan [] b. Ewe [] c. Northerner [] d. others []
7. Whom do you live with?
a. both parents [] b. mother only [] c. father only [] d. relatives [] e. others
.....
8. Place of residence: a. Parent's own house [] b) Family house [] c) Rented apartment d)
others (specify)
9. Marital status: a. single [] b. married [] c. divorced [] d. cohabited []
e. separated []

SECTION B: ADOLESCENTS' KNOWLEDGE ON SEXUAL AND REPRODUCTIVE HEALTH

10. Which of these sexual and reproductive health practices are you aware of? Indicate your level of knowledge. **High=1, Low=2, Not at all=3**

Sexual and productive health	1	2	3
I have knowledge on the use of condoms			

I have knowledge on birth control pill			
I have knowledge on STI's including HIV/AIDS			
I have knowledge on abortion services			
I have knowledge on family planning services			
I have knowledge on emergency contraceptives			

SECTION C: MAIN SOURCES OF REPRODUCTIVE HEALTH INFORMATION AMONG ADOLESCENTS

11. Where do you get your source of information regarding reproductive health (rank the following as) **1= Never, 2= Once, 3= Sometimes and 4= Always.**

Adolescent main of information on reproductive health	1	2	3	4
Father				
Mother				
Family member				
Media				
School				
Church				
Peer				
Other (indicate in writing)				

SECTION D: PARENTAL PRACTICES AND CONTRIBUTIONS THAT INFLUENCE SEXUAL BEHAVIOUR OF ADOLESCENT

12. Which of the following issue do you regularly discuss with your parent/s

- a. Sexual and RH [] b. Academic [] c. Financial [] d. Peer pressure [] e. Others []

13. Indicate your level of agreement to the following parental practices that influence adolescent sexual behavior

Parental practices or roles	Regularly	Once in while	Never
My parent controls my movement			
My parent monitors the kind of friends I associate myself with			
My parents provide me with my financial needs			
I am able to communicate with my parent on issues of sexual health			

There are rules in the house which my parent (father/mother) use to control me			
I tell my parent (father/mother) a lot about the things going on in my life.			
I hide a lot of information about my life from my parent (father/mother)			

SECTION E: ADOLESCENTS' SEXUAL BEHAVIOUR

14. Have you ever had sex? a. yes [] b. no []

15. Have you had sexual intercourse in the last six months? .a. yes [] b. no []

16. If yes, did you use contraceptive a. yes [] b. no []

17. What type of contraceptive did you use during sexual intercourse?

a. Condom [] b. others (specify)J

18. Number of sexual partners. a. One sexual partner [] b. two [] c. three or more sexual partners []

Sexual behaviour	Not at all	Sometimes	Common	More common
I had oral sex				
I had vaginal sex				
I used condom consistently				
I used birth control pills consistency				
I engage in any other sexual touching				
I had engaged in any unprotected sex				

19. Which of the following did you engage in sex with? a. male [] b. female []

both sexes []

20. From the list of items regarding sexual behaviour, which of them do you associate yourself with the more.



KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF HEALTH SCIENCES



SCHOOL OF MEDICAL SCIENCES / KOMFO ANOKYE TEACHING HOSPITAL
COMMITTEE ON HUMAN RESEARCH, PUBLICATION AND ETHICS

Our Ref: CHRPE/AP/586/18

25th October, 2018.

Ms. Josephine Fiagbey
Department of Population,
Family and Reproductive Health
School of Public Health
KNUST-KUMASI.

Dear Madam,

LETTER OF APPROVAL

Protocol Title: "Parental Influence on Adolescent Sexual Behaviour in the Bantama-Metro."

Proposed Site: Bantama Sub-Metro, Ashanti Region.

Sponsor: Principal Investigator.

Your submission to the Committee on Human Research, Publications and Ethics on the above-named protocol refers.

The Committee reviewed the following documents:

- A notification letter of 10th August, 2018 from the Bantama Sub-Metro Council (study site) indicating approval for the conduct of the study in the Sub-metropolis.
- A Completed CHRPE Application Form.
- Participant Information Leaflet and Consent Form.
- Research Protocol.
- Questionnaires

The Committee has considered the ethical merit of your submission and approved the protocol. The approval is for a fixed period of one year, beginning 25th October, 2018 to 24th October, 2019 renewable thereafter. The Committee may however, suspend or withdraw ethical approval at any time if your study is found to contravene the approved protocol.

Data gathered for the study should be used for the approved purposes only. Permission should be sought from the Committee if any amendment to the protocol or use, other than submitted, is made of your research data.

The Committee should be notified of the actual start date of the project and would expect a report on your study, annually or at the close of the project, whichever one comes first. It should also be informed of any publication arising from the study.

Yours faithfully,

Osomfo Prof. Sir J. W. Acheampong MD, FWACP
Chairman