

An Analysis of Students' Perception of Sex Education Programmes and Their Effects on Adolescent Sexual Behaviour in KNUST Junior High School, Kumasi

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Abstract

The subject of sex education is of perennial concern to boys and girls because both their natural proclivities and the accepted patterns of adolescent behaviour differ substantially from the morals handed down to us. Every adolescent, like every adult is at times torn by conflict between urges and the rules laid down by his grandmother or his superego. Many young people need help in handling the conflict. This survey was conducted to find out the perception of students on sex education programs and their effect on adolescent sexual behaviour with a sample size of 175 selected from Kwame Nkrumah University of Science and Technology Junior High School. Findings revealed that there indeed is a close relationship between sex education and positive sexual behaviour of students. The study recommends that more schools should get involved in spreading the knowledge on sex education and seminars can also be organized for the students just as Kwame Nkrumah University of Science and Technology Junior High School does sometimes.

Keywords: Adolescent, Sexual Behaviour, Sexuality, Education, Sex

1. Introduction

Sex education curriculum has historically been a controversial topic in Ghana. Sex education is not just an issue of teaching about sexuality but also an issue of which morals and values our society should promote. The way in which we, as a society, talk to our young people about sex and intimate relationships can significantly influence the way they see themselves as individuals, as partners, and as sexual human beings. Young people can be defined as those aged 10 - 24 years; this group is made up of adolescents-aged 10 – 19 years- and youth-aged 15 - 24 years (Kesterton, A.J. and Cabral de Mello, 2010). Adolescence stage of the youth has been found to represent the period with the highest frequency of negative consequences. These consequences are associated with sexual activities like sexually transmitted diseases and unwanted pregnancies (De-Seta, F. et al., 2000). Educating the adolescents on sex can have a great impact on their perception of the risks associated with sexual behaviour, and what needs to be done to reduce that risk. Sexual risk taking behaviours among adolescents, and its unfortunate consequences, are major contemporary policy concerns (Araujo, 2008). Research has shown that a number of American teenagers are sexually potent and due to that they do not always make good choices when it comes to sexual behaviour and that end up in a number of consequences which result in increased governmental spending and negative social and health outcomes

The Ghana Health Service report indicates that the prevalence rate of HIV/AIDs in Ghana between the age group of 15 to 24 years accounted for 3.4% in 2002. Through the help of the national interventions aided by operations research, this has reduced drastically (Service, 2006).

The predominance of HIV in general population in Ghana standing at 1.37% in 2012, the Ghana AIDS Commission and others works together with the Ghana Health Service submits that prevalence for the age group 15 - 19 years in 2013 stood at 0.7% and that of youth 15 - 24 years, which is used a proxy for new infections, the representation is 1.3% while young person's 15 - 24 years of age contributed 28% (2044 of 7323), (2236 of 7991) for 2012 and 2013 respectively of new infections showing no reduction in new infections(Ghana Health Service, 2012).

According to Kirby (2011), with the growing interdependency and interconnectedness of nations in recent times, reliable and accessible information on sexuality and reproductive health is on the demand especially by young people. Clarity on a wide range of issues on sexual reproductive health from physiology to cultural norms and even relationships are being sought for. In order to respond to the needs of adolescents and young people for information and training in behavioural skills, a growing number of organizations and movements with international coverage have made varied commitments. These organizations and movements seek to meet the sexual and reproductive rights as well as provide valuable information to adolescents to make informed decisions essential for their health and development based on internationally recognized standards (United Nations, 2002;2003)

Kirkendall (1964) noted that sex education needs to be conceived much more broadly than its scope and its direction should come as we determine the objectives towards which it is directed. There are two particular circumstances that seem to be of much significance in thinking about sex education. These bring to the fore the

issues discussed below.

First, we have developed a relatively unsupervised, and hence a 'free choice' society for adolescents so far as their sexual behaviour is concerned. The standard of premarital chastity was traditionally supported by social safeguards which made violations difficult. These safeguards were supplied by the nature of the culture itself. At the turn of the century methods of transportation were slow, and so young people were easily kept under surveillance of their elders. The negative consequences of violating conventional patterns bore down on the individual and his family with real force. Chaperonage was an acceptable practice. Sexual matters were very seldom discussed, and the controls of the super-ego were strong enough that while even then a choice was available, it never occurred to many young people that it was possible for them to make it. If the conventional standards were disregarded, it seemed less a choice than it did a violation.

One by one the safeguards which supported chastity have been withdrawn or knocked into a cocked hat. The possible dangers of disregarding traditional standards have lost much of their threat. The frequency with which non-marital pregnancies occur simply highlights the fact that they are not feared. Beyond that, young people know that practically fool proof of contraceptives are available, and many of them think that they know how to use them. Quick available transportation enables most young people to be free from adult supervision and attain anonymity in a matter of minutes. Young people are provided the circumstances in which sexual experimentations and experiences may easily occur yet their elders act as though things were sixty years ago.

Second, the approach to considerations of moral decision making must be both rational and affirming. By rational, we mean an approach which is based on reason. These reasons ought to go beyond the physical and the material realm, for human being have an optional nature and need love and a sense of belonging. But we are past the time when this can be handled in a purely metaphysical way. Neither can be imposed by fiat. We have nurtured on a scientific inquiry, we have been taught to ask for evidence, and young people have learned their lesson well.

Typically, those programs strive to delay the initiation of sex, reduce the number of sexual encounters and sexual partners, and increase the use of condoms and of effective contraceptive methods among young people. Sometimes, such programs also have the goal of promoting testing for sexually transmitted infections or reducing sexual violence. Some of those programs are based on a written curriculum and are implemented by addressing groups of young people. Such programs are particularly suitable for the school environment, where it is easier to reach large numbers of young people at early stages of their development and before they become sexually active. By reaching adolescents early in puberty, school settings can provide young people with the information and skills they will need to make responsible decisions about their future sexual lives. Through those programs, educators have the opportunity of encouraging adolescents to delay the onset of sexual activity and of training.

From the above, it is clear that there is a wide range of sources of sex education for young people and these varied sources are likely to have varied influence on the adolescent sex behaviour. On the basis of this therefore, the researchers were interested in finding out an analysis of student perception of sex education programmes and their effects on adolescent sexual behaviour at the KNUST JHS.

1.2 Research Problem

Many adults are uncomfortable with the idea of 'teen sexuality', and prefer to remain in ignorance or denial. It is critically important for adults to address adolescent sexuality realistically and to recognize that many factors, including socioeconomic status, race or ethnicity, family structure, educational aspirations, and life experiences, affect young people's behaviour. In Ghana, there is a misconception that young people are healthy since they show low levels of illness compared to younger children and adults. However, Ghana Statistical Service, Ghana Health Service, & ICF Macro (2009) reveal a higher magnitude of sexual and reproductive health problems of the young people, the most crucial being unprotected sex and risky sexual behaviour.

According to Ghana Health Service (2012) and Homans (2003), the habits and lifestyles that are established during this period have a profound consequence on future health and development. To this effect, sex education has become a very sensitive topic which parents and the society dare not touch because of some of these factors: most parents do not see its relevance, they think that exposing children to this topic may make them go astray and not forgetting the fact that some parents think giving their children a moral upbringing is enough. This however, contributes in the occurrence of high teenage pregnancy and STIs. Therefore, the research seeks to investigate and understand sex education programmes from the perspective of students and its influence on sexual behaviours.

This research is aimed at getting the views of the students on the need of these sex education programs and how it can affect adolescent sexual behaviour. These objectives were to:

- Identify the demographic characteristics of respondents that predispose them to their perception of sex education programmes at KNUST JHS.
- Determine students' knowledge of sex education programmes at KNUST JHS.

- Identify the students' perception of sex education programmes and their impact on adolescent sexual behaviour at KNUST JHS.
- Establish the relationship between the sex education programmes and adolescent sexual behaviour of KNUST JHS students.

Based on the objectives the following research directing questions are formulated.

- What are the demographic characteristics of respondents that predispose them to their perception of sex education programmes at KNUST JHS?
- What is students' level of awareness on sex education programmes KNUST JHS?
- What are the students' perceptions on sex education programmes and their impact on adolescent sexual behaviour at KNUST JHS?
- What is the relationship between the teaching of sex education programs and adolescent sexual behaviour of KNUST JHS students?

This study will enrich literature as well as provide knowledge and insights on sex education for all stakeholders of the society for successful decision making and responsible management of sexual impulse. In the study, basic and accurate information about the risk of teen sexual activity and ways to avoid intercourse or use methods of protection against pregnancy and STIs are highlighted. Also, the findings of the study will be of practical relevance for the adoption and implementation plans of sex education programs and policies on sexual and reproductive health policies as a whole for Ghana and the African sub-region.

The study covered students' perception of sex education and their effects on adolescent sexual behaviour only. Methods employed helped maintain some privacy though respondents were far more than willing to communicate openly.

The study was based on the following assumptions:

- That the selected students co-operated in providing the necessary information.
- That the selected sample of students for the study provided the required evidence to sufficiently address the study problem.
- That the selected students were exposed to various sources of sex education

The paper is organized as follows: related literature in the field of the study is reviewed. Afterwards, the methodology employed for the study which includes the research design, population, sample and sampling techniques is presented. The subsequent section focuses on the results and discussions of the study's findings, and the data analysis. Finally, the paper concludes with the summary, conclusion and recommendations the manufacturing sector today, human capital is still essential for most factories to carry out a variety of manual operations, in spite of the rapid advancement of automation technology and robotics. Futuristic vision of "unmanned manufacturing" (Deen,1993) is forbiddingly expensive, because all its hardware components need to be computer controlled so as to freely communicate with each other; and yet, most of the outcomes are not promising (Sun & Venuvinod 2001). By and large, factories equipped with relatively simple machinery controls will require continuous attendance of human operators; for examples, textile mills, leather products, and medical appliances. With limited capital investments in production equipment, the main budget of their fixed costs lies on the workforce size (Techawiboonwong *et al.* 2006).

With regard to cost-effectiveness, labour planning always opts for the minimum amount of workers needed to deal with the daily operations, as well as the probable rate of disturbance (Lim *et al.* 2008). The workforce disturbance is often ascribed to absenteeism and turnover, which may result in considerable loss of productivity for any labour-intensive division (Easton & Goodale 2002). Buffering with redundant skilled workers (Molleman & Slomp 1999) or relief workers (Redding 2004) might be a direct solution to absenteeism; however, the rising labour cost must be justifiable due to the fact that underutilisation of labour during low demand seasons is considered a waste of resources. Absenteeism is the measure of unplanned absences from workplace due to some reasons like personal emergency, accident, illness, etc. Turnover occurs when an active worker resigns from the company of his own accord, thus leaving a vacant post until a replacement is found. If such disturbance has caused a large number of tasks become unattended and overdue, the company is then vulnerable to overtime cost, shrunk capacity and productivity, extra queuing time, lost business income, etc. In order to prevent these deteriorative effects, optimising the number of workers can be helpful. As a fundamental branch of knowledge in manufacturing business, workforce management will never fall behind the times. Therefore, it is worth an attempt to incorporate a novel methodology, such as HMS, into the state of the art of workforce sizing.

2. Literature Review

2.1 Sex Education Programs

Burt (2009) defined sex education as the study of the characteristics of beings; a male and female sex education. Thus, sex education may also be described as "sexuality education", which means that it encompasses education about all aspects of sexuality, including information about family planning, reproduction (fertilization, conception and development of the embryo and foetus, through to childbirth), plus information about all aspects

of one's sexuality including: body image, sexual orientation, sexual pleasure, values, decision making, communication, dating, relationships, sexually transmitted infections (STIs) and how to avoid them, and birth control methods (Kearney, 2008). Sex education is instruction on issues relating to human sexuality, including human sexual anatomy, sexual reproduction, sexual intercourse, reproductive health, emotional relations, reproductive rights and responsibilities, abstinence, birth control, and other aspects of human sexual behaviour. Common avenues for sex education are parents or caregivers, formal school programs, and public health campaigns.

Sex education is intended to provide the youth with information and skills needed to make healthy and informed decisions about sex. In the Rationale for Sex Education document (UNESCO, 2009); mention is made of the relevance of sex education and of its primary goal of equipping children and young people with skills, values and knowledge to make thoughtful choices on their sexual and social relationships. Similarly, (Dako-Gyeke, M., and Iddrisu, 2012) Highlight the indispensable role of education in shaping decisions and choices regarding sexual and reproductive health because it encourages contraceptive use and promotes postponement of the onset of sexual activity and childbirth, especially among the youth. However, many young adolescents do not have accurate information about sexual development or the risks and consequences of early and unprotected sexual activity because of poor sensitization and education (Bright futures). During the past two decades, a number of changes have occurred in how sex education is provided to adolescents (Lindberg, Santelli, & Singh, 2002). In spite of this, the extent to which these effective sex education programs have been implemented is not well understood and incomprehensive (Hoff, Greene, McIntosh, Rawlings, & D'Amico, 2000; D. Kirby, 2010). A recent study of school based substance-use prevention programs suggests poor up take of evidence-based programs by providers; only 14% of substance-abuse prevention providers used evidence-based content and delivery methods (Ennett, 2003).

2.2 Adolescence

Adolescence (from Latin: *adolescere* meaning "to grow up") in (Macmillan Publishers, 1981) is a transitional stage of physical and psychological human development generally occurring during the period from puberty to legal adulthood (age of majority). The period of adolescence is most closely associated with the teenage years (Igbo & Nwaka, 2013). The theoretical basis for the Life-model research and Resources on Development, although it's physical, psychological, and cultural expressions can begin earlier and end later. For example, until recently puberty was closely linked with the onset of adolescence however, it now sets in before the teenage and there has been a shift of it occurring in preadolescence, particularly in females (The StandS4 Network). Physical growth, as distinct from puberty, particularly in males; and cognitive development generally seen in adolescence, can also extend into the early twenties. Thus chronological age provides only a rough marker of adolescence, and scholars have found it difficult to agree upon a precise definition of adolescence (Finley, 2007; Žukauskaitė, Lašienė, Lašas, Urbonaitė, & Hindmarsh, 2005). A thorough understanding of adolescence in society depends on information from various perspectives, most importantly from the areas of psychology, biology, history, sociology, education, and anthropology. Within all of these perspectives, adolescence is viewed as a transitional period between childhood and adulthood whose cultural purpose is the preparation of children for adult roles (Larson, R. & Wilson, 2004).

2.3 Sexual Behaviour

Sexual behaviour is the outward expressions of sexual feelings and attitudes (Kalinga, 2010). Most teenagers consider it as an extremely emotive topic, and most importantly, use it as yardstick to judge success or failure (Garbarino, 1985). The sexual feelings and behaviours during adolescent are a product of not only biological factors, but also a result of cultural teaching that specify appropriate sexual behaviour, appropriate targets of sexual feelings and appropriate settings for expressing sexual impulses (Newman & Newman, 1986).

Young people like adults, may be prone to engaging in risky sexual behaviour due to perceptions of personal invulnerability and their tendency to focus on the immediate, rather than long-term, consequences of their behaviour. Not only do adolescents have to cope with their own maturational changes, but they also have to come to terms with a confusing inconsistency among adult views and a lack of any clear standard or moral code of conduct (Garbarino, 1985).

The environment in which young people are making decisions related to sexual and reproductive health is also rapidly evolving. Rates of sexual initiation during young adulthood are rising or remaining unchanged in many developing countries (Ali, M. M. & Cleland, 2005; Gupta & Mahy, 2003). Childbearing and marriage are increasingly unlinked, and in many developing countries, high HIV prevalence adds to the risks associated with early sexual activity (Dixon-Mueller, 2009; Pettifor, Vander Straten, Dunbar, Shiboski, & Padian, 2004). For instance, in all but a few countries in Sub-Saharan Africa, AIDS is a generalized epidemic (Joint United Nations Programme on HIV/AIDS, 2010). Young people are disproportionately affected, accounting for almost two-thirds of the people living with HIV in the region. Moreover, the predominance of HIV among adolescents is

higher in Sub-Saharan Africa than in other parts of the world (Joint United Nations Program on HIV/AIDS, 2010).

Young women are less likely than young men to engage in high-risk sexual behaviours. (Khan, S., and Mishra, 2008) Provide statistical information on sexual behaviours in Sub-Saharan Africa. Their study reveals that among young men who had ever had sexual intercourse, more than 20% of them had had multiple partners in the past 12 months, compared with fewer than 10% of young women.

Since many teenagers feel pressured into sexual encounters they would need the best possible preparation to assist them to cope well with their sexual development and to avoid the most obvious pitfalls. It is in view of this that the researchers set out to investigate the student perception of sex education programmes and their effects on adolescent sexual behaviour at the KNUST JHS, because sex education is viewed as a means of promoting more responsible sexual behaviour and as an important step in preventing the dangers of making wrong decisions

2.4 Effects of Sex Education Adolescent Sexual Behaviour

The context within which young people live affects the potential for reaching them with sexuality education programs and interventions. It also influences the choice of the most effective means or the channels through which such education can be delivered.

There are a very wide range sources where adolescents get information about sex and sexuality such as through peers, the media, parents and the community, the church and school. However, some sources may be more influential than others and may emphasize different aspects of sexuality (Bleakley, Hennessy, Fishbein, & Jordan, 2009). Some of these are discussed below.

2.4.1 The home as a source of Sex Education

The home on no uncertain terms seems to be a natural setting for instructing children about sex. At home, young people can easily have a one-to-one discussion with parents focusing on specific issues, questions or concerns. They can have a dialogue about their attitudes and views (Forrest, 2002). Sex education at home usually has a long duration frame and involves lots of short interactions between parents and children (Seckford Foundation). The benefits of ongoing, in-depth discussions between parents and adolescents regarding sexuality are apparent. Most often adolescents become more aware of the steps they must take to prevent sexually transmitted diseases and pregnancy due to the education.

Most importantly, adolescents' well-being may be enhanced if they feel more confident with their own sexuality; this in the long benefits the family as a whole.

However, many researches Fox & Inazu (1980) and Simanski, (1998) have indicated that adolescents receive relatively little or no sex (Rice, 1984) education directives from their parents. In fact, some surveys report that young people are dissatisfied with sex information available at home, but would really prefer their parents to be the primary source (Simanski, 1998).

Report has it that some parents are too embarrassed to discuss the subject of sex, or deal with it in negative ways. Many parents have been brought up to feel that a discussion on sex is a taboo and become intensely uncomfortable any time the subject is mentioned. If they do discuss sex the messages they give their children are negative ones which interfere with sexual satisfaction (Darling & Hicks, 1982; Simanski, 1998). Most often parents directly or indirectly refuse the adolescent an open communication about sex. Due to parental reluctance, discussion of certain sexual issues may be delayed until early adolescence. The timing is typically too late, as many adolescents have already turned to peers for information on sexuality. Hence, the efficiency and effectiveness of sex education by parents is limited (Forrest, 2002).

2.4.2. Role of the School in Sex Education

The school serves as breeding grounds where most form of education is acquired. Family life education was one of the first types of sexual education taught in schools. By the late 1930's, 1940's and 1950's, colleges, universities, and even high schools added family life education into their normal curriculum (Kuriansky & E., 2009).

Sexual education programs in schools have generally had positive effects on adolescent sexual knowledge (Finkel & Finkel, 1985; Melchert & Burnett, 1990), but have also been found not to influence adolescents' sexual attitudes or behaviours (Maslach, G., & Kerr, 1983). Research has found that neither the presence nor absence of contraceptive education in a sample of high school students was correlated with the students' contraceptive behaviours (Taylor, Wang, Jack, & Adame, 1989), whereas another found that a school-based sex education program seemed to have a positive effect on the students' condom use (Kvalem, Sundet, Rivo, Eilersten, & Bakketeig, 1996).

In a survey report of SIECUS Report of Public Support of Sexuality Education (2009), it indicated 93% of adults are in favor of sexuality education in high school and 84% for junior high school. Majority of parents of secondary school students believe that sex education in school makes it easier for them to talk to their adolescents about sex. Similarly, findings of (Sex Education in America, 2004) reveal that 92% of adolescents want comprehensive sex education from both their parents and educational institutions.

2.4.3. Peers as a source on Sex Education

Adolescent mostly get majority of their insight on sex education from each other. Some studies have indicated that peers remain the main source of information on sexuality for adolescents. Among secondary school students in Homa Bay, Kenya, 35% of females and 51% of males reported frequent discussions of sexual matters with their peers (Nyamongo, 1995).

Research has it that, college students in Hanoi and Ho Chi Minh City, Viet Nam, over 90% of adolescents' report that they are most comfortable discussing sexual and reproductive health with peers of their own sex, while far fewer report discussion with their parents (Nhan, 1996). In a case study in 13 provinces of Indonesia, peers outrank parents as the main source of information on sexual matters for both females and males: 74% of males and 65% of females obtain their information from their peers, compared to 13% and 23% of males and females, respectively, who report parents as their source of information. Also, 47% of males and 44% of females' name teachers as their main source of information (Wirakartakusumah, 1997).

It is quite interesting to know what teenagers learn from each other, peers seem less threatening than adults as a source of information about a topic that is widely treated in many cultures as a taboo and guilt associated with it (Swan, Bowe, Mocormick, & Kosmin, 2003). Unfortunately, the difficulty with learning from peers is that adolescents in general are not well informed on sex related issues and are hardly competent teachers for one another. Generally, adolescents report greater sexual activity when they believe that their friends are also sexually active, whether or not they really are (Berenson A. B., ZH, & C.R., 2006; Brooks-Gunn & Furstenberg Jr., 1989). For example, in a study of adolescents in USA, Kaiser Family reported that when asked why they had sex for the first time, 13 % of the adolescents ages 13 to 18 cited pressure from their friends.

Practically all young people are curious about sex and concern about sex and that considerable sex experimentation goes on among their friends and is accepted by them.

2.4.4. The role of the Media on Sex Education

Nowadays print and electronic media has been dominating the world over due to globalization; communication can be done in world through online.

Media influences various aspects of sexual behaviour of teenagers. It has also been instrumental in positively shaping up the attitudes of the youth. Some research have delineated the media's powerful influence on adolescents' sexual attitudes, values, and beliefs (Brown & KL, 2009; Brown, Steele, & K., 2002).

Adolescents are undoubtedly active consumers of messages broadcast on radio and television, printed in magazines, distributed on the Internet. According to Douglas Kirby, Laris, & Rolleri (2006), averagely people aged from 8-18 use social media for approximately 6 hours a day. Due to technological advancement, access to internet, and other social media content has become common the world over (Werner, Fitzharris, & Morrissey, 2004). Further, the youth appear to be using media in an isolated manner: more adolescents seem to have media available in their private bedrooms (Larson, 1995).

Television, film, music, and the Internet are all becoming increasingly sexually explicit. Both children and adults have been reported to believe the media is a central source of information on sex and sexuality for young people (Malamuth & Impett, 2001) considering few programs (from the daily news, to "reality-based" programs, to talk shows, to family-centred programming) yet little information on abstinence, sexual responsibility, and birth control.

There have been only a handful of studies on the effects of sexual content on actual behaviour. At least a dozen correlational studies have examined the relationship between the amount of sexual content viewed on TV and early onset of sexual intercourse (Corder-Bolz, 1982; Petersen, Schulenberg, Abramowitz, Offer, & Jarcho, 1984).

It is believed that the content analysis performed on social networking sites, television, movies and music, to determine the types of messages delivered through these sources have shown that adolescents are being exposed to both implicit and explicit sexual content (Ward & Wyatt, 1994).

Depending on their rate of development, some adolescents may bow to media influences, while others may not. Based on an extensive literature review regarding the influences of sexual content in the media, Malamuth & Impett (2001) indicate that individual personality factors may also be important, as research suggests that the type of media people select and find gratifying is predictably related to their personalities and other individual differences.

There is no doubt that the media is a powerful vehicle for sexual health education. Socially responsible messages can be embedded into mainstream programming a practice dubbed "entertainment education" or "edutainment (Collins, Elliott, Berry, Kanouse, & Hunter, 2003)

Sexual talk on TV has the same effect on adolescents as depictions of sex shows with content about contraception and pregnancy can help to educate adolescents about the risks and consequences of sex and can also foster beneficial dialogue between adolescents and parents.

Sex education that works, by which we mean that it is effective, is sex education that helping young people to be safe and enjoy their sexuality

2.5 Conceptual Framework

Figure 2-1 illustrates the systematic explanation of the topic. It simply points out the fact that how students perceive sex education has an effect on the adolescent sexual behaviour

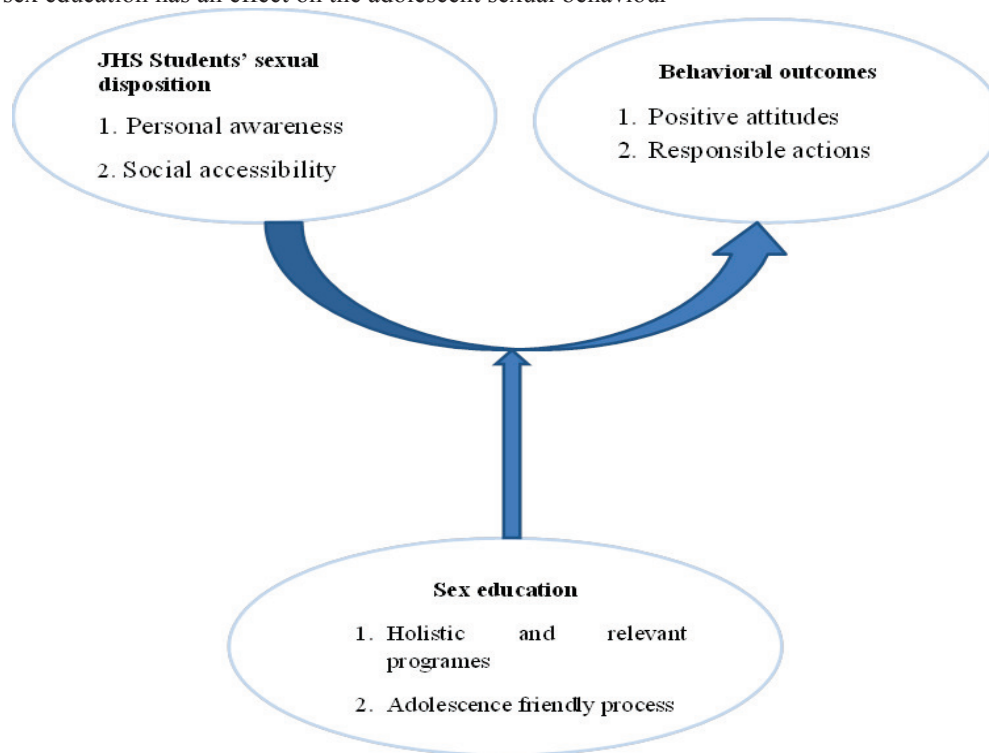


Figure 1. Conceptual framework (authors own)

3. Methodology

This section deals with the procedure and methods adopted to carry out the study. It entails a description of the research design, sampling and sampling size, data collection and processing and the presentation and analysis of data gathered.

For this study, the exploratory research design was used for the collection of data which is data gathered mainly by questionnaire on more than one case at a single point in time. The employment of this very research design paved way for the researchers to conduct the study in natural, real life settings using probability samples, which in effect increased the external validity of the study. It had an all- inclusive interpretation about the population under the study.

The study was conducted at the KNUST Junior High School, on KNUST campus whose total population was 1,200.

Purposive and simple random samplings were employed in selecting the sample and questionnaire administration used for data collection. The school was chosen because sex education programs were offered as part of the curricula and the final year students were the major targets. Simple random sampling technique was used to elicit information from the sample group. (Saunders et al., 2009) highlights this technique is advantageous for a sampling frame that is accurate and accessible, and better for a sample size over hundred. This made it easier to get a sizable sample size which is 175. (Krejcie & Morgan, 1970) formula on deriving a sample size was used as shown in Appendix 2. Self-administered questionnaires were used because of its appropriateness for research which is largely quantitative in nature and also because respondents were literates.

The data collected was analysed with an SPSS software program. Descriptive statistics such as frequency, means, standard deviations and percentages was used to summarize and describe the trend of the data collected. Results were presented in tables, graphs and charts because they display a great deal of information in a concise, simple, clear and easy to read format.

4. Results and Discussion

The demographics give the background information of respondents which includes level in school, age, religious affiliation, sex and place of habitation.

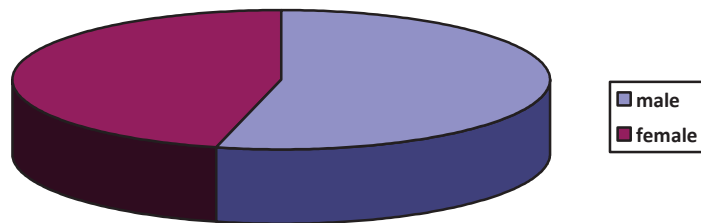


Figure 1. Gender

As mentioned earlier, respondents were drawn from KNUST Junior High School. Out of the 175 respondents, 95 representing 54% were males and the rest (80) which was 46% were females. This was due to fact that there was more enrolment of boys than girls in Junior High School Three (JHS 3).

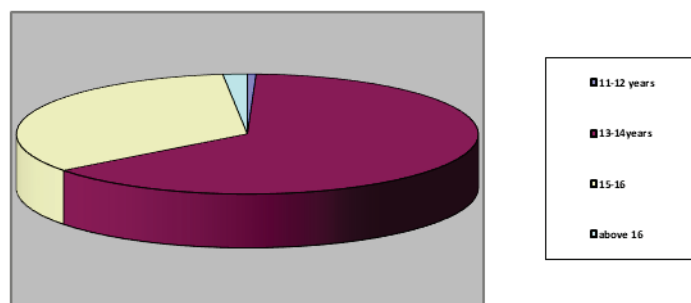


Figure 2. Age of respondents

Respondents again, were asked as to indicate the community in Kumasi where they stay. This is because it is assumed that communities should have their own way of dealing with sex education since there may be peer educators around. Again personality and the environment of a person affect his or her behaviour in social psychology.

The outcome is depicted in the bar graph below. Those who lived at other communities other than the ones provided by the researcher were 119 representing 68%. Followed by those who lived on KNUST campus (31) representing 18%. Students who lived at Bomso were 11 representing 6% of the total number of respondents (175). Ayigya community had 8 students living there and Kentinkrono had 6 students residing there.

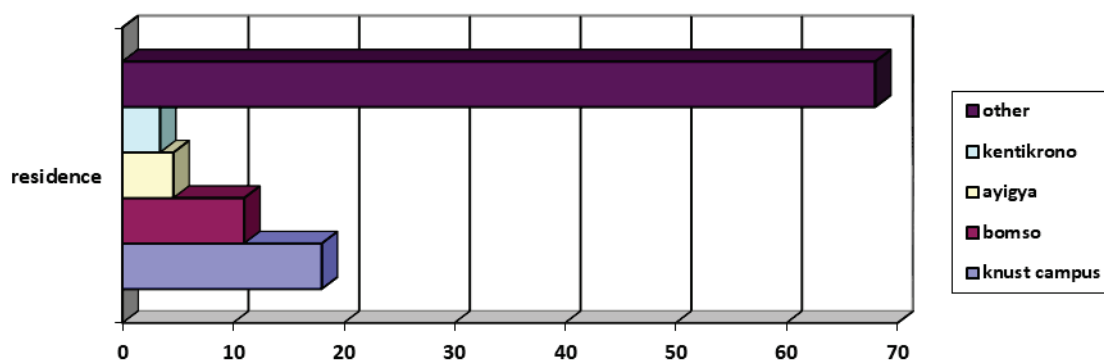


Figure 3. Residence of respondents

Religiosity has a lot to do with sex education and for that matter contraceptive use. The Holy Bible says in Colossians 3:5 - Mortify therefore your members which are upon the earth; fornication, uncleanness, inordinate affection, evil concupiscence, and covetousness, which is idolatry (King James Version). Catholics for example are against contraceptive use since they believe it is against the Holy Book (Catechism for the Catholic Church, 1997). Again John 14:21 (King James Version) reads “He that hath my commandments, and keepeth them: he it is that loveth me. And he that loveth me shall be loved by my father: and I will love him and will manifest myself to him”. It is in the light of this and other reasons that the researcher wanted to find out the religious background of the students.

Islam alike in the holy Quran speaks on the issue of sexual behaviour. AYAH an-Nur 24:2 admonishes believers not to fornicate and states that, “the woman and the man who fornicate scourge each of them a hundred whips; and in the matter of God’s religion, let no tenderness for them seize you if you believe in God and the Last Day; and let a party of the believers witness their punishment.”

The *Table 1* shows that 33 % of the students were Charismatic, 67 % Orthodox, 21 % Pentecostals, 6 % Muslims and the remaining 2 % Traditionalists.

Table 1: Religion and level in school of respondents (Source: Field data, 2013)

Variable	Frequency, f	Percent, %
Religious background of Respondents		
Pentecostal	37	21.1
Orthodox	67	38.3
Charismatic	58	33.1
Level in Junior High		
Year 1	10	5.71
Year 2	15	8.57
Year 3	150	85.71

Students response on the level at which they currently find themselves were also analyzed. From *Table 1* above, responses were 10, 15 and 150 in JHS1, JHS 2 and JHS 3 respectively. The respective percentage responses as a percentage of the total responses were 5.71, 8.57 and 85.71. From the data, it was identified the respondents were skewed to those in the final year at the JHS level. Although they were the final years, it was also to give the researcher the view as to level of sex education they get in school as well. That is even if the school does not give sex education at the beginning stages, the higher final year respondents will give as a true measure of sex education level in the school.

According to (Bleske-Rechek & Jenna A. Kelley, 2013) the personality of an individual is influenced by the birth order hence students were asked their birth positions in the family. This was to find out if their positions gave them the privilege of knowing about sex education from their elder siblings or them learning as elder siblings. Firstborn often tend to be: Reliable, Conscientious, Structured, Cautious, Controlling and Achievers. The middle child often feels left out and a sense of, ‘Well, I’m not the oldest. I’m not the youngest. This sort of hierarchical floundering leads middle children to make their mark among their peers, since parental attention is usually devoted to the beloved firstborn or baby of the family. Youngest children tend to be the most free-spirited due to their parents’ increasingly laissez-faire attitude towards parenting the second (or third, or fourth, or fifth...) time around. Being the only child is a unique position in a family. Without any siblings to compete with, the only child monopolizes his parents’ attention and resources, not just for a short period of time like a firstborn, but forever. In effect, this makes an only child something like a “super-firstborn”: only children have the privilege (and the burden) of having all their parents’ support and expectations on their shoulders.

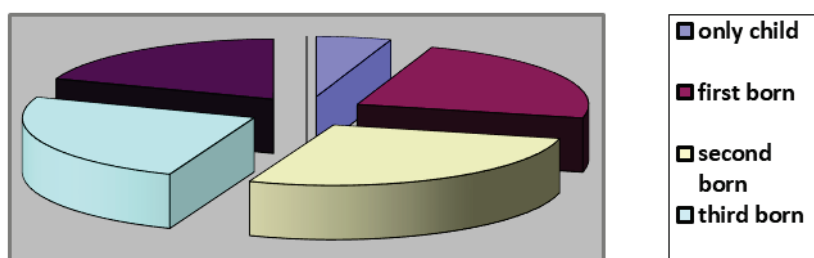


Figure 4. Birth order in family

The chart above shows the outcome of the responses. 8 children representing 5 % were the only children of their parents. First born children were 36 representing 20 % of the total number of students of interest. Second born children were 42 representing 24 %. Third born children were 38 representing 22 %. 30 students representing 17 % were fourth born children.

Furthermore, the study sought the extent to which respondents were aware of sex education using various indicators measured on a 5 point likert scale from strongly disagree to strongly agree

Table 2. The Level of Awareness of sex education

Values Variables	SD		D		U		A		SA		Mean, x
	-2		-1		0		1		2		
	f	%	f	%	f	%	f	%	f	%	
<i>Awareness of sex education programmes at KNUST JHS</i>											3.57
respondents views on sex education programs being important	3	1.7	4	2.3	1	0.6	46	26.3	121	69.1	4.59
sex education programs include abstinence, condom use, HIV/AIDS, reproductive health, teenage pregnancy and contraceptive use	3	1.7	7	4	14	8	103	58.9	48	27.4	4.06
parents of respondents talk to them about sex education	9	5.1	45	25.7	12	6.9	73	41.7	36	20.6	3.47
respondents' get sex education only at school	54	30.9	60	35.3	12	6.9	39	22.3	10	5.7	2.38
students have at least 2 years knowledge on sex education	18	10.3	28	16	37	21.1	55	31.4	37	21.1	3.37

(Source: field data, 2013)

As much as 92 respondents (more than 50% of the total respondents) strongly agreed that sex education programs are important and that the teens should be educated on it. 25 students agreed that sex education was important and also strongly disagreed that teens should be educated on it. 24 students strongly disagreed that sex education was important and also disagreed that teens should be educated on it.

Sex education programmes included the following: abstinence, condom use, HIV and AIDS, adolescent reproductive health, teenage pregnancy, and contraceptive use. The Table 4-2 shows whether respondents agree or disagree that sex education programs include abstinence, condom use, HIV/AIDS, reproductive health, teenage pregnancy and contraceptive use.

103 students representing 59% agreed. This was followed by 48 students representing 27 % who strongly agreed. 14 students representing 8% were unsure of what to say. 7 students representing 4% disagreed whilst only 3 respondents representing 2% strongly disagreed. The data provides evidence that, the majority of respondents (86%) comprising of those who agreed and strongly agreed are in favor sex education should be all inclusive.

This result can be attributed to the fact that junior high school pupils are taught reproductive system of the human being and issues related to pregnancy as part of their curriculum.

With regards to respondents' parents talking to them about sex, 73 respondents representing 42% agreed that their parents talk to them about sex. This was closely followed by 45 respondents (26%) who disagreed. Students who strongly agreed were 36 representing 20%. 12 respondents were unsure whilst 9 respondents strongly disagreed. From this, most parents give some form of sex education to their children (62% of the respondents).

Moreover, the researcher inquired on whether sex education should be at schools. The results indicated that 54 respondents representing 31% strongly disagreed whilst 10 which represented 6% strongly agreed. 60

respondents representing 34% disagreed that sex education should happen in schools. 7% (12 respondents) were unsure. 39 respondents representing 22% agreed that sex education should be taught in schools.

It is assumed that the longer it takes for a person to assimilate and become knowledgeable in sex issues, its impacts is positive on the sexual behaviours of students (Frable, 1997) It is against this backdrop that the researcher asked questions concerning years on knowledge on sex education and adolescent sexual behaviour. It can be seen that there is a close relation between sex education and positive sexual behaviour. More respondents strongly agreed to the fact that they have had at least two years of sex education and positive sexual behaviour.

Also measured on a 5 point likert scale, the perception of sex education programs and their effects on adolescent sexual behaviour students revealed interesting findings. 32 respondents of question 12 represented a mean of 1.10 strongly agreed to the fact that they would rather talk to their peers whenever certain issues bothered them. This question was asked because most children are normally themselves around their peers other than their parents or teachers.

Although peers, siblings, genes, and circumstance all indubitably play into how a child's temperament develops, "I think the parents still are the major influencing factors because, truthfully, the first year of life is the bonding with the primary caretaker that impacts upon self-confidence, trust, the ability to interact with another person," says therapist Wallace. Now, whether or not this primary caretaker is actually the biological parent is negligible, considering the increasingly changing definition of the modern "family." Instead, it's the experiences shared by child and parental figure that leaves the lasting impression.

There are bodily changes especially during adolescence. The reproductive systems of both males and females undergo rapid development and changes at this stage of human development. With this in mind, students were asked if they side with being uncomfortable with telling their parents about any bodily changes they encounter. With a mean of 0.03, respondents point out they were quite unsure as to whether they were comfortable with telling their parents about changes they see in their bodies. It means that there is a big problem if parents are not seen as the first point of call if children have issues they are confused about.

The students almost agreed that sex education encourages one to keep a partner. This clearly indicates that a minute number of the students think knowledge on sex education can urge them on to have a partner.

Sex education helps me to deal with issues of my adolescent sexuality knowledge on sex education programs help delay gratification of sexual intercourse among the youth. 49 students were unsure of what to say as to whether they agreed or not. Those who disagreed and strongly disagreed were 22 and 20 respondents respectively.

On the issue of sex education helping to deal with matters concerning adolescence, 11 respondents representing 6% of the respondents of 175 either were unsure, disagreed or strongly disagreed. The remaining 94 % (164 respondents) agreed and strongly agreed to the fact that sex education has helped them dealt with their adolescent sexuality.

Table 3. Perception of sex education programs and their effects on adolescent sexual behaviour of KNUST JHS students

Values Variables	SD		D		U		A		SA		Mean Scores, X
	-2		-1		0		1		2		
	f	%	f	%	f	%	f	%	f	%	
Perception Of Sex Education Programs And Their Effects On Adolescent Sexual Behaviour Of KNUST JHS Students											
12. I prefer to talk to my peers whenever I am confused about certain issues	32	18.3	49	28.0	20	11.4	46	26.3	28	16.0	1.10
13. I am comfortable with telling my parents about changes I see in my body	32	18.3	36	20.6	24	13.7	61	34.9	22	12.6	0.03
14 Sex education encourages me to keep a partner	20	11.4	22	12.6	49	28.0	47	26.9	37	21.1	0.34
15. Sex education helps me to deal with issues of my adolescent sexuality	2	1.1	3	1.7	6	3.4	76	43.4	88	50.3	1.40
16. All schools should inculcate the study of sex education programs in their syllabus	1	0.6	0	0	3	1.7	36	20.6	135	77.1	1.74

The inculcation of sex education in the syllabus of junior high school education may go a long way of increasing the adolescents' knowledge on sexuality. This in the long run would have positive impact on the sexual behaviours of the children. As inquired in the study, majority of the students are in favor of sex education being inculcated in academic syllabus indicated by 77.1 % who agreed and 20 % who strongly agreed.

In meeting the last objective of the study, a correlation analysis was performed to establish the relationship between the teaching of sex education programs and adolescent sexual behaviour of KNUST JHS students.

There was no significant correlation between the knowledge on sex education and the adolescence behaviour as in all cases $p > 0.005$. Therefore, no matter the strength of correlation there were no significant levels obtained from the analysis.

Moreover, it was also strange that there was also no significant influence of the respondent's demographics on their adolescence sexual behaviour. However, there was a positive significant correlation between a positive sexual behaviour and knowledge of teenage pregnancy. Thus $r = .355$ and $p = 0.001 < .005$. In this instance, it means that when adolescence have knowledge on teenage pregnancy then it is likely to lead to a positive adolescent sex life. Therefore, it is important that from our research population most of the students are likely to change their sexual ways when they have adequate knowledge on teenage pregnancy. It is important to then make sex educators at the school aware of this trend and hence educate students on teenage pregnancy if their ultimate goal of their sex education is the encourage students to lead a positive sexual behaviour.

On the other correlations conducted in tables 4.5 and 4.6, there were no significant relationship identified between the sex education programme and the adolescence sexual behaviour. But in all those scenarios, a significant relationship was identified between positive sexual behaviour and knowledge on teenage pregnancy. This goes a long way to confirm the importance of knowledge on respondents' get sex education only at school.

Table 4. Correlations on knowledge of sex education programme and adolescence behaviour

Control Variables		Knowledge on sex education	Positive sexual behaviour	without sex education I would have a negative attitude towards sex	respondents' get sex education only at school	
gender distribution of respondents & age group of respondents & residence of respondents & religious background of respondent & position in class	Knowledge on sex education	Correlation	1.000	.164	.110	.090
		Significance (2-tailed)	.	.033	.153	.243
		df	0	167	167	167
	Positive sexual behaviour	Correlation	.164	1.000	.027	.355
		Significance (2-tailed)	.033	.	.728	.000
		df	167	0	167	167
	without sex education I would have a negative attitude towards sex	Correlation	.110	.027	1.000	-.019
		Significance (2-tailed)	.153	.728	.	.804
		df	167	167	0	167
	respondents' get sex education only at school	Correlation	.090	.355	-.019	1.000
		Significance (2-tailed)	.243	.000	.804	.
		df	167	167	167	0

(Source: field data, 2013)

5. Conclusion

5.1 Summary findings

First and foremost, as regards to the sex of the respondents, the study revealed that more males than females were sampled. 54.0% were male, while the remaining 46.0% of total respondents were female. The dominant age group of JHS students sampled was 13-14 years old; with most of them living in communities besides those indicated by the researcher in the data collection tool. With regards to religion, it can be generalized that majority of KNUST JHS students were Orthodox Christians, followed by Charismatic members, with insignificant number of them belonging to Pentecostal movements, Islam, and Traditional African Religion. It is interesting to note that the sibling position of respondents was evenly distributed.

The study revealed that most KNUST JHS students indicated that sex education programs included abstinence, condom use, HIV/AIDS, reproductive health, teenage pregnancy and contraceptive use. This view was held by an overwhelming 54.0% of total respondents. To the researcher, this could be attributed to the fact that junior high school pupils are taught reproductive system of the human being and issues related to pregnancy, as part of their academic syllabus.

Also, data gathered from respondent indicated that as much as 92 respondents (more than 50.0% of the total respondents) strongly agreed that sex education programs as important and that the teens should be educated on it. This highlighted the importance teens attached to sex education programs. Additionally, the study brought to the fore the fact that most parents discuss sex related issues with their children. It is however interesting to note that a significant number of KNUST JHS students sampled for this study reported that sex education should not happen in school.

Moreover, the study revealed that there is indeed a close relationship between sex education and positive sexual behaviour of students. More respondents strongly agreed to the fact that they have had at least two years of sex education and positive sexual behaviour.

Additionally, one vital finding of this study was that most respondents (61.0% of total respondents) agreed that without HIV and AIDS education, their attitude towards such persons with the disease would be negative. Furthermore, a stupendous number of KNUST JHS students sampled for this study indicated that students generally have knowledge on teenage pregnancy. Consequently, this informed the need on the part of students for sex education, as adolescents, which could help reduce teenage pregnancies in Kumasi, and Ghana in general.

It was deduced from the study that a significant number of respondents denied the assertion that students prefer talking to peers when confronted with certain sexual issues. The study therefore debunked the widely held perception that because children were usually most comfortable in the company of their peers than their parents or teachers, they preferred talking to their peers other than those in authority. Interestingly, a lot of students of KNUST JHS were uncomfortable telling their parents about changes that they see in their bodies. It was worth noting that despite the fact that adolescents were knowledgeable on issues of sex, a significant number of students sampled for this study indicated that these sex education programs did nothing to delay the urge for sexual gratification. Additionally, most respondents (94.0% of total respondents) generally agreed to the fact that sex education had helped them deal with their adolescent sexuality.

Finally, the study revealed that respondents generally indicated that sex education should be added to the school's academic syllabus. In the view of the researcher, the incorporation of sex education into the syllabus of junior high school education may go a long way of increasing adolescents' knowledge on sexuality.

5.2 Conclusion

Sexual behaviours during adolescence arises from an amalgamation of varied factors not limited to religion, individual biology, emotions and behaviours. As an important phase of life with it new experiences, changes and acquisition of skills, most adolescents are unable to adapt. This likely leads to the adoption of poor behavioural patterns such as engaging in risky sexual behaviours when appropriate guidance is not effectively given. The study depicts the existence of a close relationship between sex education and positive sexual behaviour of students. It ascertains an earlier study by Kohler et al (2007) that comprehensive and effective sexual education programs is significantly associated with reduced risk of teen pregnancy.

Although time and place of meeting students was a bit problematic since the data gathering conflicted with class hours mostly, it is worth noting that sex education programs are important especially to adolescents. From the demographics, it was found out that less females than males in the study seem to have access to sex education. If more girls gain access, it would highly possibly help curb teenage pregnancies and STI's which would in turn affect the rate at which girls drop out of school. The school is an avenue where sex education can be radically spread to help adolescents in their sex behaviour. Peers are not the immediate people teens in this era to seek advice from about adolescent problems. From the above, intra-curricular education programs such as seminars and fora have a high tendency to cover schools and the students in schools since it seems more effective and efficient because it is compulsory in nature.

We also recommend parents give proper sex education to children since most of the students gave preference to being taught by their parents. Furthermore, the government must establish more peer counselling centres where adolescents can access the right information since the students deem sex education important.

Last but not the least, sex education programs must not centre only on abstinence methods, a level of abstinence has to be hammered since abstaining can reduce drastically the HIV and AIDS infections, STIs and teenage pregnancies.

References

- Ali, M. M. & Cleland, J. . (2005). Sexual and reproductive behavior among single women aged 15–24 in eight Latin American countries: a comparative analysis. *Social Science & Medicine*, **60**(6), 1175–1185.
- Araujo, M. (2008). The Effects of Sex Education on Adolescent Sexual Risk Taking Behavior.
- Berenson A. B., ZH, W., & C.R., B. (2006). The relationship between source of sexual information and sexual behavior among female adolescents. *Contraception. Pub Med*, **73**(3), 274–278.
- Bleakley, A., Hennessy, M., Fishbein, M., & Jordan, A. (2009). How Sources of Sexual Information Relate to Adolescents' Beliefs about Sex. *Health Behaviour*, **33**(1), 37–48.

- Bleske-Rechek, A., & Jenna A. Kelley. (2013). Birth order and personality: A within-family test using independent self-reports from both firstborn and later born siblings. *Personality and Individual Differences*.
- Brooks-Gunn, J., & Furstenberg Jr., F. F. (1989). Adolescent sexual behavior. *American Psychological Association*, 44(2), 249–257. Retrieved from <http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=1989-25567-001>
- Brown, J. D., & KL, L. (2009). X-rated: sexual attitudes and behaviors associated with US early adolescents' exposure to sexually explicit media. *Communic Res*, 36(1), 129–151.
- Brown, J. D., Steele, J. R., & K., W.-C. (2002). *Sexual Teens, Sexual Media*. Hillsdale, New Jersey: Lawrence Erlbaum.
- Burt. (2009). Sex education. In free encyclopedia. Retrieved from http://en.wikipedia.org/wiki/sex_education
- Dako-Gyeke, M., and Iddrisu, B. M. (2012). The right to education: Experiences of child beggars from the streets of northern Ghana. *Academic Leadership Journal*, 10(1).
- Darling, C. A., & Hicks, M. N. (1982). Parental Influence on Adolescence Sexuality: Implications for Parents as Educators. *Journal of Adolescents and Adolescence II*.
- De-Seta, F., Riccoli, M., Sartore, A., De-Santo, D., Grimaldi, E., Ricci, G., & Wiesenfeld, U. Guaschino, S. (2000). Sexual Behavior and Adolescence. *Minerva Gynecology*, 52, 339–344.
- Dixon-Mueller, R. (2009). Starting Young: sexual initiation and HIV prevention in early adolescence. *AIDS and Behavior*, 13(1), 100–109.
- Ennett, S. T. (2003). A comparison of current practice in school-based substance use prevention programs with meta-analysis findings. US National Library of Medicine National Institutes of Health, . National Institutes of Health, 1–14.
- Finkel, M. L., & Finkel, S. (1985). Sex Education in High School. *Society*, 2(3), 48–51.
- Finley, H. (2007). Average Age at Menarche in Various Cultures. Museum of Menstruation and Women's Health.
- Forrest, S. (2002). A comparison of Student evaluations of Peer-delivered Sex Education Programme and Teacher-led programme. *Sex Education*, 2(3).
- Fox, & Inazu, T. (1980). *The Family's Role in Adolescent Sexual Behaviour* (T. Ooms (E). Philadelphia, PA: Temple University Press.
- Frale, D. E. S. (1997). Gender, racial, ethnic, sexual, and class identities. *Annual Review of Psychology*, 48(24), 139.
- Garbarino, J. (1985). *Adolescent Development: An Ecological Perspective*. Columbus Ohio: Merrill Publishing Co.
- Ghana Health Service. (2012). *Adolescent Health and Development Programme Report*. Accra.
- Ghana Statistical Service, Ghana Health Service, & ICF Macro. (2009). *Ghana Demographic and Health Survey 2008. Indigenous children and their rights under the Convention*. Accra. Retrieved from [http://www.dhsprogram.com/pubs/pdf/FR221/FR221\[13Aug2012\].pdf](http://www.dhsprogram.com/pubs/pdf/FR221/FR221[13Aug2012].pdf)
- Gupta, N., & Mahy, M. (2003). Sexual Initiation among Adolescent Girls and Boys: Trends and Differentials in Sub-Saharan Africa. *Archives of Sexual Behavior*, 32(1), 41–53.
- Hoff, T., Greene, L., McIntosh, M., Rawlings, N., & D'Amico, J. (2000). *Sex Education In America: A series of National Surveys of Students, Parents, Teachers, and Principals*. Menlo Park, CA: The Kaiser Family Foundation.
- Homans, H. (2003). Youth Friendly Health Services: Responding to the Needs of Young People in Europe. In United Nations Inter Agency Group (UNFPA/UNICEF/WHO) Consultant on Youth Friendly Services (pp. 1–2). Geneva.
- Igbo, J. N., & Nwaka, R. (2013). Gender, popularity, social competence and academic achievement of in-school adolescents in Nigeria. *Developing Country Studies*, 3(9).
- Joint United Nations Program on HIV/AIDS. (2010).
- Joint United Nations Programme on HIV/AIDS. (2010). *UNAIDS Report On the Global Aids Epidemic 2010*.
- Kalinga, M. K. (2010). *The Effects of Sex Education on Adolescents' Sexual Behavior in Secondary Schools in Thika District, Kenya*. Kenyatta University.
- Kearney, C. A. (2008). School absenteeism and school refusal behavior in youth: A contemporary review, 28, 451–471. <http://doi.org/10.1016/j.cpr.2007.07.012>
- Kesterton, A.J. and Cabral de Mello, M. (2010). *Generating Demand and Community Support for Sexual and Reproductive Health Services for Young People, A Review of the Literature and Programs*. *Reproductive Health*, 25(7).
- Khan, S., and Mishra, V. (2008). *Youth Reproductive and Sexual Health. (DHS Compar)*. Calverton, Maryland: Comparative Macro International Inc.
- Kirby, D. (2010). The impact of schools and school programs upon adolescent sexual behavior. *The Journal of Sex Research*, 39(1), 27–33. <http://doi.org/10.1080/00224490209552116>
- Kirby, D. (2011). *The Impact Of Sex Education On The Sexual Behaviour Of Young People*. (Population

- Division Expert No. 2011/12). New York. Retrieved from http://www.un.org/esa/population/publications/expertpapers/2011-12_Kirby_Expert-Paper.pdf
- Kirby, D., Laris, B. A., & Rolleri, M. P. H. L. (2006). Sex and HIV Education Programs for Youth: Their Impact and Important Characteristics. Scotts Valley: ETR Associates.
- Kirkendall, L. A. (1964). Sex and Our Society. New York: Public Affairs Pamphlets.
- Krejcie, R. V., & Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, **30**, 607–610.
- Kuriansky, J., & E., S. (2009). Sexuality Education: Past, Present, and Future. Praeger.
- Kvalem, I. L., Sundet, J. M., Rivo, K. I., Eilersten, D. E., & Bakketeig, L. S. (1996). The effect of sex education on adolescents' use of condoms: Applying the Solomon Four-Group Design. *Health Education Quarterly*, **23**(1), 34–47.
- Larson, R. & Wilson, S. (2004). Adolescence across place and time: Globalization and the changing pathways to adulthood. In R. Lerner and L. Steinberg *Handbook of adolescent psychology*. New York: Wiley.
- Larson, R. (1995). Secrets in the bedroom: Adolescents' private use of media. *Journal of Youth and Adolescence*, **24**(5), 535–550.
- Lindberg, L., Santelli, J. S., & Singh, S. (2002). Changes in formal sex education. *Perspectives of Sex Reproductive Health*, **2006**(38), 182–9.
- Macmillan Publishers. (1981). *Macmillan Dictionary for Students*. United Kingdom: Macmillan Pan Ltd.
- Maslach, G., & Kerr, G. B. (1983). Tailoring sex education programs to adolescents: A strategy for the primary prevention of unwanted adolescent pregnancies. *Adolescence*, **18**(70), 449–456.
- Melchert, T., & Burnett, K. F. (1990). Attitudes, Knowledge, and Sexual Behavior of High-Risk Adolescents: Implications for Counseling and Sexuality Education. *Journal of Counseling & Development*, **68**, 293–298. <http://doi.org/10.1002/j.1556-6676.1990.tb01376.x>
- United Nations. Nations Committee on the Rights of the Child,. Geneva, Switzerland.
- NATIONS, U. (2000). Committee on Economic, Social and Cultural Rights. NEW YORK.
- Newman, B., & Newman, P. (1986). *Adolescent Development*. New York: Memill Publishing Co.
- Nhan, V. Q. (1996). Survey on young adults' reproductive behaviour: KAP study. Hanoi.
- Nyamongo, I. (1995). (1995). Investigation into Condom Acceptability, Sexual Behaviour and Attitudes about HIV Infection and AIDS among Adolescent Students In Kenya. University of Nairobi.
- Pettifor, A. E., Vander Straten, A., Dunbar, M. S., Shiboski, S. C., & Padian, N. S. (2004). Early Age of First Sex; a Risk Factor for HIV Infection among Women in Zimbabwe. *AIDS*, **18**(10), 435–1442.
- Rice, W. R. (1984). Sex chromosomes and the evolution of sexual dimorphism. *Evolution*, **38**, 735–742.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for business students* (5th ed.). Prentice Hall.
- Seckford Foundation. Sex and Relationship Education Policy. Retrieved from <http://seckfordfoundation.org.uk/Files/Portals/1/Policies/Sex and Relationships Education Policy.pdf>
- Service, G. H. (2006). National HIV/AIDS Control Programme : NACP Annual Statistics 2012.
- Sex Education in America. (2004). Washington, DC: National Public Radio, Henry J. Kaiser Family Foundation, and Harvard Kennedy School of Government.
- SIECUS Report of Public Support of Sexuality Education. (2009).
- Simanski, J. W. (1998). *The Birds and the Bees: An Analysis of Advice Given to Parents through Popular Press*. Adolescence.
- Swan, C., Bowe, K., Mocormick, G., & Kosmin, M. (2003). Teenage pregnancy and parenthood: A review of reviews: evidence briefing. London: Health Development Agency.
- Taylor, M. E., Wang, M. R., Jack, L., & Adame, D. D. (1989). The effects of contraceptive education on adolescent males' contraceptive behaviour and attitudes. *Health Education*, April/May, 12–17.
- The StandS4 Network. What does adolescence mean? Retrieved from <http://www.definitions.net/definition/adolescence>
- UNESCO. (2009). International Technical Guidance on Sexuality Education: An evidence-informed approach for schools, teachers and health educators. *The Rationale of Sex Education*, **1**, 2–3.
- Werner, R. J., Fitzharris, J. L., & Morrissey, K. M. M. (2004). Adolescent and parent perceptions of media influence on adolescent sexuality. *Adolescence*.
- Wirakartakusumah, D. (1997). *Indonesian Teenage Reproductive Health*, Jakarta. University of Indonesia.
- Žukauskaitė, S., Lašienė, D., Lašas, L., Urbonaitė, B., & Hindmarsh, P. (2005). Onset of breast and pubic hair development in 1231 preadolescent Lithuanian schoolgirls. *Arch. Dis. Child*, **90**(9), 932–6.