

## ICT: Breaking Barriers to Contraceptives Information and Usage among Adolescents in the Sunyani East Municipality, Brong Ahafo Region, Ghana

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### Abstract

**Introduction:** Information Communication Technology (ICT) is the use of computers, mobile phones and internet to access, process, receive, send, and use various kinds of data and information. With the expansion of mobile phone users and availability of internet services, teenagers are now using ICT to create awareness and use contraceptives, an area considered to be the preserved of married couple.

**Purpose:** The paper examines how the application of ICT by teenagers broken traditional and religious barriers to accessing and utilizing contraceptive information in the Sunyani East Municipality.

**Methodology:** The research design was a mixed method combining qualitative and quantitative approaches. The target population was teenagers between the ages of 11 and 19 years in Senior High and Junior High Schools. Out of 87 schools, 16 schools were randomly selected using simple random sampling technique. The total sample size was 212 teenagers. Data was collected from the respondents, using interviews, questionnaires and focus group discussions. The paper found that ICT is a major means of accessing, sharing and using information about contraceptives by the teenagers, information is hard to access because of societal perceptions, sociocultural and psycho-religious barriers.

**Findings:** The paper found that ICT has impact on their perceptions, utilization or otherwise, because they now the effects of various kinds of contraceptives.

**Recommendation:** The paper recommends that teenagers should be given proper ICT education to enable them use credible websites on the internet to get contraceptive information. Education should be intensified through the mass media, free lectures, radio and television discussions to augment the use of ICT to expand the number of teenagers using contraceptive.

**Keywords:** *ICT, contraceptives, adolescents, perception, sociocultural barriers.*

## Introduction

Information and Communication Technology (ICT) is the use of technological tools such as computer hardware and software, mobile phones and telecommunication devices to store, manipulate, convert, protect, send and receive information electronically (Ansah et al., 2012). With the aid of the internet, computers and mobile phones as the main tools, adolescents' access, process, store and share information of all kinds including information on sexual reproduction. In the light of increasing population of mobile phone users in Ghana, especially among the youth<sup>1</sup>, ICT has become one of the most important means of accessing and sharing of sexual reproduction information among adolescents.

It is observed that, the youth spend a lot time with their phones, accessing, learning, processing and sharing all manner of information including matters concerning their sex and the use of contraceptives. The use of mobile phones to access information regarding contraceptives is even more accentuated by the fact that issues concerning sex and the use of contraceptives are not openly discussed in many Ghanaian cultures and in schools. However, information about safe sex, not only to avoid sexual transmitted Infections (STIs) but also to prevent unwanted pregnancy which may result in abortions and death, is very fundamental to the adolescents who are sexually active and explorative. This makes the use of ICT by the youth to search for information regarding the use of contraceptive very important.

Although some successes have been chalked in the area of awareness of family planning services in Ghana, the unmet need for family planning still remains high (Ghana Health Service, 2008) especially among the youth. Similarly, the Sunyani East Municipality in the Brong Ahafo Region (BA) of Ghana is not spared from this predicament as the acceptor rate for family planning services also remains low.

Statistics from the Brong Ahafo Regional Health Directorate show that from January to June 2013, two hundred and thirty-five (235) pregnant girls between 10 to 14 and 684 of them between 15 and 19 years visited antenatal clinics in the Region which is a source of great concern (Ghana News Agency, 2013). The Municipal Health Directorate recorded antenatal registration for teenagers from January to December 2014 as follows: Age 10 – 14 years registered 29(0.5%) while age 15 -19 years registered 571 (10%), although there was a slight decrease in the figures as compared to 2013, the fact still remains that there was increased dropout rate due to poor parental control and peer pressure (Sunyani East Municipal Health Directorate, 2014).

At country level, although there are few studies regarding contraceptive use, most of them relied on secondary data from the demographic health surveys (Addai, 1999; Foreman, 2011 and Ghana Demographic and Health Survey, 2008). The current study, however, went beyond by incorporating ICT and its usage to accessing contraceptives. There have been little empirical studies on the application of ICT in the creation of awareness and usage of contraceptives among

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<sup>1</sup> In this paper, youth, adolescents and teenagers are used interchangeably to refer to boys and girls between the ages of 11 years and 19 years of age.

the adolescents, especially in the Sunyani East Municipality. In most of the studies such as Abiodun and Balogun (2009), much emphasis was placed mostly on population in tertiary institutions. Since the sexual activity seems to be starting at early ages as noted in some empirical studies such as Caldwell and Caldwell (1999). There is therefore the need to search deeper into how adolescents in JHS and SHS levels in the Municipality resort into the use of ICT to acquire information on contraceptives since sexual matters are not openly discussed and taught in schools and at home.

In the wake of increasing and ubiquitous use of ICT by the adolescents in Ghana, there have been little or no empirical studies on how the youth apply ICT in creating awareness and using contraceptives. Most of the studies on students' use of ICT rather focused on trying to establish the link between students' access to ICT and its effects on their studies (Sarfo & Anson-Gyimah, 2011 and Buami, 2013).

This paper is unique because it is among the first of its kind that focuses on the application of ICT by adolescents to create awareness and use contraceptives, especially in the Sunyani East Municipality of Brong Ahafo Region of Ghana. The general objective of the paper is to examine the application of ICT in creating awareness and usage of contraceptive among teenagers in the Sunyani East Municipality. Specifically, the paper assesses the extent to which ICT enhanced teenagers' knowledge and usage of contraceptives, reasons why teenagers resort to ICT for contraceptive education, examine their perception about contraceptives, determine the ICT tools they commonly used for contraceptive information and finally identify the barriers to the use of contraceptives among the teenagers in the Sunyani East Municipality.

### **An overview of the literature**

Modern contraceptive methods have a surprisingly short history and are dominated by the oral contraceptive pill, which came on to the market in the 1960s (Bracken & Farak, 2009). New developments since the advent of the pill have been largely limited to tinkering with the contents and routes of administration of hormonal contraception (Caldwell & Caldwell, 1999). Sexually active teenagers who do not use contraception face a great risk of pregnancy and often underestimate the likelihood of becoming pregnant or causing a pregnancy during sexual activities (Bracken & Farak, 2009; Chetley & Andrew, 2007). Sexual intercourse is often sporadic among curious teenagers worldwide usually unplanned, and unprotected, leaving many female teenagers vulnerable to both pregnancy and sexually transmitted diseases (STDs) (Abdullah, 2007).

Although teenagers are often viewed as a homogenous group in much of the published literature, they are not (Addai, 1999). Very often the precise age parameters used for defining who a teenager is are often documented inconsistently in scattered literature, or an age segment of this group is completely overlooked (Abiodun & Balogun, 2009). In a joint statement in 1998, WHO and UNFPA established the categories of "teenagers" as those aged 10–19 years (UNFPA, 2004, WHO, 2005). For the purposes of consistency and to avoid ambiguous age category for defining teenagers, this paper is left with no option but to rely heavily on the definition by the use of this international age designation for teenagers by the WHO and UNFPA (1998).

Information and communication technology (ICT) has played an integral part in addressing family planning, reproductive health, HIV/AIDS, tuberculosis (TB) and many other health needs most especially among teenagers in developed countries (Ian et al., 2009). ICT methods can be used to inform and educate family planning/reproductive health program, community members, sexually active youth, and other service providers, as well as clients in a more effective way than the traditional way of doing it (Solo, 2010; Smit & Venter, 1993).

Using appropriate existing ICT methods to disseminate contraceptive information particularly mobile technologies have the capacity to improve access to family planning/reproductive health information and services for teenagers, married women and youth, as well as increasing their opportunities to more effectively engage in the economy, with the ultimate potential to better both their health status and their quality of life (Smit & Venter, 1993). These technologies and other effective ways of using ICT such as help lines could play a role in an overall approach to addressing gender inequities in accessing contraceptive information from service providers if care is taken to purposely support and encourage their use for and by all teenagers (Ian et al., 2009).

Sexual behaviour among teenagers is not a new phenomenon. As part of the transition from childhood to adulthood, all teenagers experience sexual feelings (Ranck, 2011). Some act upon these feelings by having sexual intercourse; others do not have intercourse but engage in behaviours stopping short of penile/vaginal intercourse; some engage in anal intercourse or oral sex (WHO, 2005; Potts, 2009).

Promotion of contraceptive usage among teenagers has the potential of reducing poverty, population growth and hunger, and can also avert 32 percent of all maternal deaths and nearly 10 percent of child mortality (WHO, 2005). Young people are exposed early to unplanned and unprotected sexual intercourse leading to unwanted pregnancies and abortions which are especially very common in many Sub-Saharan African countries where persistent high rates of unmet need for contraceptive information and services and low rates of contraceptive use are reported (Ranck, 2011).

ICTs aid in collective efforts to create a dependable and reliable health care and help teenage women avoid pregnancy and improve their reproductive health by providing them with timely, actionable, personalized information through short messaging systems (SMS). There is a growing interest in adolescent reproductive health (Riddle & Estes, 2008). Teenage pregnancy is an important public health issue because it is associated with maternal, foetal, and neonatal adverse outcomes (World Bank, 2003; Tuladhar & Holoway, 2009). Teenage girls who get pregnant are likely to drop out from school and teenage parents are unlikely to have the social and economic means to raise children (World Bank, 2003; Zelnik, & Kantner, 2009).

### **Barriers to Contraceptive Usage**

An intrapersonal barrier to contraceptive use is that it is perceived as interfering with the "pleasure, spontaneity, or convenience" of sex (Bertrand et al., 2005). The major reported barriers to continuation of a birth control method, among teenagers as among adults, are problems with the method: side effects that are experienced in conjunction with current use

nausea, pain, weight gain and/or fear of future negative side effects (Clement & Nyovani, 2004). It should be noted however, that because unforeseen "medical" complications are a legitimate reason for the discontinuation of any medically prescribed therapy, these reasons may be offered for discontinuation of medical methods even if other reasons are, in fact, more significant.

In a related development, Clement and Nyovani, (2004) identified lack of support from friends, parents, or partners as barriers to contraceptive use among teenagers. Similarly, clinic fees and the cost of contraceptives themselves may not be affordable to adolescents, or they may have to take time off from work or school to attend service providers place to acquire one (Addai, 1999). Throughout the literature in developing countries, economic underdevelopment and poverty are contextual factors identified as determinants of contraceptive use and the uptake of sexual health services (Kahad, 2010). The upstream factor of poverty is often manifested as structural barriers in the environment or health system.

With limited health services available in many settings, especially in rural areas, proximity to the clinic is a major barrier to women (Kahad, 2010). In a Ugandan study, the most common obstacle to contraceptives use identified among women was a lack of access to quality commodities and information in health facilities (Abiodun & Balogun, 2009). Similarly, Bracken and Farak, (2009) found proximity to a private health facility was positively associated with current contraceptive use among Ugandan women more than public health facilities.

Even when women live in close proximity to a healthcare facility, the availability of a range of contraceptive methods and the quality of services provided at those facilities may be lacking (Bracken & Farak, 2009). Failure to provide universal access to contraceptives to people has been documented throughout resource-limited settings, with cases of contraceptive stock-out and limited choice in methods commonly reported, especially in rural areas compelling people to be very reluctant to use contraceptive (Foreman & Mia, 2011). Sub-Saharan Africa has been identified as having the least availability and the least variety of methods of contraceptives to meet the ever growing demand of variety by their people (Ismet, 2000).

Adequate supply included not only the availability of contraceptives, but access to trained staff, protocols of treatment, follow-up care, cost, and the environment of health facilities (Foreman et al., 2011). In addition to perceived or actual partner acceptance of contraception, partner's fertility desires are important to consider in this context. In many sub-Saharan countries and in other developing nations, individuals tend to favour large family sizes (Jaccard & Davidson, 2009), with cultural status often tied to family size for both men and women (Jaccard et al., 2009). Kenyan women cited the need to have many children as a way to keep their husband satisfied and to avoid abandonment and social stigma (Karr, 2010).

High infant and child mortality rates in resource limited settings also contributed to the desire for a high number of pregnancies, as it is often anticipated that only a portion of pregnancies will lead to children that survive infancy and childhood (Koray et al., 2000). Not surprisingly, research indicated higher fertility desires among couples is associated with less contraceptive use (Abdullah, 2007). Furthermore, qualitative studies in Nepal indicated that one's religion has a strong influence on family planning; Ugandans identified as both Catholic and Muslim cited



their religion as a major reason for not using contraceptives and for their desire for a large family (Kahad, 2010).

Another key barrier to effective contraceptive use is lack of physical and financial access to family planning commodities (Karr, 2010). Studies have shown that health facilities offering family planning are not equitably distributed throughout the country (Solo, 2010). Women complain of frequent stock-outs and the associated costs of lost wages, transport and other financial challenges. Studies have shown that, among the youth, lower socioeconomic status has been associated with less contraceptive use (Solo, 2010). Shame is also a significant factor preventing use of family planning (specifically condoms), particularly for unmarried youth (Solo, 2010; Karr, 2010).

Young people perceive women who carry condoms as promiscuous, and that asking a partner to use condoms would reveal them as sexually wayward or untrustworthy (Karr, 2010). Young people also noted that while married people may freely ask for family planning, they are inhibited because of the shame associated with procuring contraceptives (Abdullah, 2007; Karr, 2010). A study among a fairly representative sample of teenagers in Nigeria found misinformation about contraceptive to have a negative effect on use and accurate information to have a positive effect on use (Karr, 2010). Myths and misinformation negatively related to contraceptive use included the belief that contraception makes women become promiscuous, contraception causes cancer, and contraception is expensive (Karr, 2010; Smit & Venter, 1993)

Underdeveloped logistical systems leading to frequent contraceptive shortages are reported in Uganda, as is a shortage of skilled staff, and other health and social concerns competing for the limited resources available (Zelnik & Kantner, 2009). Research in Ghana reports mistrust of service providers as a major barrier to accessing sexual and reproductive health services among people especially teenagers for fear of being exposed by health workers to their friends or parents (Kahad, 2010) and the presence of three or more service providers trained in providing integrated reproductive health services has been associated with contraceptive use (WHO, 2005), highlighting the importance of skilled providers.

## **Methods and Materials**

### **Profile of study area**

The study was conducted in the Sunyani East Municipality in the Brong Ahafo Region of Ghana. Sunyani East Municipality shares boundaries with Sunyani West District to the North, Dormaa District to the West, Asutifi District to the South and Tano North District to the East (Ghana Statistical Services {GSS}, 2010). The Municipality has a total land area of 829.3 square kilometres (320.1square miles).

The Municipality falls within the wet Semi-Equatorial Climatic Zone of Ghana (GSS, 2010). The mean monthly temperatures vary between 23°C and 33°C with the lowest around August and the highest being observed around March and April (GSS, 2010). The relative humidity is high, averaging between 75 and 80 percent during the rainy season and 70 to 80 percent during the dry season of the year which is ideal for luxurious vegetative growth (GSS, 2010).

Akans is the major ethnic group, constituting about 71.1 percent of the population, followed by Ga Adangme with 2.1 percent, whereas Ewe constitutes 3.2 percent (GSS, 2010). Other tribes from the northern part of the country constitute 19.3 percent (GSS, 2010). Predominantly Christians, Islam, and Traditional groups form the main religious groups in the Municipality (GSS, 2010).

In terms of health, the Municipality has six hospitals, twelve clinics, seven community clinics popularly called CHIPS compounds, three maternity homes and three health centres which provide health services to the municipality (GSS, 2014). Concerning education, there are a total of 87 Junior High Schools (50 Public and 37 Private), six Senior High Schools (four public and two private) and four tertiary institutions (two universities, one polytechnic and one Nurses Training College). About 76 percent of the population of the Municipality are said to be literate (SEMHD, 2014).

### **Study design and sampling**

A descriptive cross-sectional study design was used for the study. The study population consisted of male and female Junior High Schools (JHS) and Senior High Schools (SHS) students (both private and public schools) who were teenagers aged (11-19) years and key informants at the study area. The study was conducted in two phases, the first phase was from January to March, 2015 and the second phase was October and November, 2015.

The Municipality has a total of 87 JHS and 6 SHS. There are five circuits with an average of 17 JHS in every circuit. The researchers randomly chose ten JHS; two schools from each circuit and all the six SHS were purposively selected to make a total of 16 schools. The researchers then purposefully selected the number of students willing to participate in the study in each school. In all, two hundred and twelve (212) respondents comprising of 200 teenagers. The rest, 12 of the sample were selected from adult males within the Municipality, staff of the Reproductive and Child Health Unit of the Municipal Health Directorate.

Sources of data included primary and secondary. For the primary data, the researchers gathered information by the administering structured questionnaire, interviews and focused group discussions. All the interviews and the group discussions were recorded and transcribed. The Secondary data were obtained through the review of related literature from books, journals and internet articles. The analysis was done using SPSS version 21.0 and Microsoft word excels 2013.

### **Findings and Discussions**

#### **Socio-Demographic Background of Respondents**

This section covers some key biographic information of the respondents on age, sex, educational level, marital status and religious status. The average age of the respondents was 14.96 years with the minimum age being 11 years while the maximum age was 19 years. The socio-demographic background of the respondents are shown in Table 1 under the following headings; age, sex, educational level, marital status and religious status.

**Table 1: Socio-demographic Characteristics of Respondents**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>AGE (years)</b>		
11-15	120	60
16-19	80	40
<b>Total</b>	<b>200</b>	<b>100</b>
<b>Sex</b>		
Female	110	55
Male	90	45
<b>Total</b>	<b>200</b>	<b>100</b>
<b>Educational level</b>		
JHS	120	60
SHS	80	40
<b>Total</b>	<b>200</b>	<b>100</b>
<b>Marital status</b>		
Single	190	95
Married	10	5
<b>Total</b>	<b>200</b>	<b>100</b>
<b>Religious status</b>		
Christianity	166	83
Islamic	26	13
Other	8	4
<b>Total</b>	<b>200</b>	<b>100</b>

**Source: Field data, 2015**

From Table 1 it is clear that more than half 120 (60%) of the respondents were between the ages of 11-15 while 80 (40%) of the teenagers were between 16-19 years at the time of the research within the study area. On the issue of sex of respondents, more than half of the respondents representing 55% were females while 90 (45%) respondents were males. A very high proportion 120 (60%) of the respondents had Junior High School education with only 80 (40%) of respondents having secondary education. The result also shows that most respondents 189 representing (94.5%) were single or in consented relationship while 11 (5.5%) respondents were married at the time of the research work. The results further revealed that majority (166) respondents representing 83% were of the Christianity faith with only 26 respondents (13%) and 8 respondents (4%) being Muslims and other unspecified religions respectively.

### **ICT enhances Knowledge of Contraceptive Use**

Results from the research revealed that an over whelming majority of respondents (67%) stated that they have heard of contraceptives from the internet, (18%) from friends, (12%) from radio and television and (3%) from their teachers. They, however, stated that, detailed information about the various contraceptives, and how they are used, as well as their effectiveness and side effects are learned from the internet, facebook, Youtube, twitter, whatsapp, text messages and direct telephone conversation with friends respectively.



The teenagers frequently mentioned that it is more convenient and dignified to access information about contraceptives using the internet and the mobile phone than asking friends or teachers. One of the female students said:

“As for me I prefer using my mobile phone to access information about sexual reproductive health and contraceptives because I learn a lot using the ICT without being stigmatised. I don’t feel comfortable asking friends, parents or teachers to tell me about contraceptives. They may think you are a bad girl. Some of the boys or male teachers may even want to take advantage of that to disturb you”

It is clear from the above statement that most of the teenagers prefer to use ICT to access information about contraceptives because of stigma. The fact that most of the respondents stated they were aware of contraceptives and had even used them could mean they learnt much about this using their mobile phones. This finding corroborates the work of Bracken and Farak (2009), who revealed that teenagers aged 11-19 in Jamaica knew what contraceptives encompassed. Similar findings were made by Ghana Demographic and Health Survey (2003), which revealed that about 98% of women and 99% of men were aware of contraceptives.

However, this finding seems to be at variance with findings made by Bertrand et al. (2005) where knowledge of teenagers who were sampled and interviewed on contraceptives use in Uganda was found to be very low as well as the findings made by Chetley and Andrew (2007). It is also necessary to reveal that apart from the fact that most respondents acknowledged they were involved in sexual acts most of them do so without regards to any form of contraceptive methods. The study revealed that 123 respondents representing 82% of the total respondents who have sexual partners (75% of total respondents) do not often use contraceptives during or after sexual intercourse.

The majority (68%) of those who said they do not often use contraceptives, claimed they are not aware about them and their effects, but their knowledge in reproductive health also shows that women have safe and dangerous periods in their mensural cycle. Therefore, they go without using contraceptives when they suspect their partners are in their free/safe period. They claimed that, they learned all these details from the internet.

These findings resonate with that of Omondi-Odhiambo (1999), who reported that 44.6% of adolescents were not using contraceptives consistently, implying that they were at risk of unwanted pregnancy and sexually transmitted infections. Consistent and correct use of contraceptives is important to prevent unwanted pregnancies.

The condom was cited by the majority (89%) of the respondents as their preferred contraceptive method, whereas the hormonal contraceptives (the injection and the pill) were also preferred. However, practice with the condom during sexual intercourse was discovered by the study to be very low. Respondents frequently mentioned that, though condoms are not very expensive, their points of sale do not guarantee their anonymity. Condoms are often sold in pharmacies and chemical shops where most of the youth shy to go and buy for fear of being exposed. One of the male respondents stated “Condoms have only one use, i.e. for sexual intercourse only. Therefore,

when you are buying it everybody knows what you are going to use it for. As a small boy who is not married, I feel shy to buy it because people may think I am promiscuous”

It is worthy to mention that, the low usage of condom is a disturbing situation since most were not actually using them even though condoms are widely distributed and easily available if not even at reproductive and health facilities but at chemical stores and pharmacies found in the study area. Other contraceptive methods like emergency contraceptives, IUDs and female condom were also generally known among the teenagers. However, they did not patronize them or seldom use them, due to reasons they often cited as “inconvenience or having side effects”. They claimed that IUDs have long term side effects on their mensural cycle and the female condoms are not convenient.

It is important to note that since time immemorial, humankind tried to avoid large family size even in ancient times. Until the last century, this was largely achieved by behavioural modifications, including abstinence during certain period of a woman’s life time, infrequent coitus, the avoidance of intercourse during the fertile period of the cycle and coitus interruptus (the withdrawal method) (Abiodun & Balogun, 2009). In population terms, breast-feeding, which inhibits normal ovarian activity has been one of the most important means of limiting fertility, whereas for individual couples, coitus interruptus first mentioned in the book of Genesis has had a major role to play as far as inhibiting pregnancy is concerned.

One artificial method of contraception, the condom, has a surprisingly long history. Penile sheaths were described in Egypt in 1350 BC. Originally made from animal intestines and later from linen or silk, they were used mainly for protection from venereal disease. Not surprisingly, given the place of women in society, female barrier methods arrived much later on the contraceptive scene. The first ‘womb veil’ was attributed to an American working in the early 1800s and the first cervical cap was produced in Germany around 1830 (Addai, 1999). It took more than 150 years before the female condom came on to the market in 1993 (Addai, 1999).

The idea of contraceptive as it has been used today perhaps is known by most people to only be family planning. This is not surprising as many people in this study associated themselves with this explanation of contraceptive. Knowledge of contraceptive must cover family planning, counselling, pregnancies, human immune virus, sexually transmitted infections, information and services among others. It has been widely advocated that increasing the knowledge of teenagers would improve their attitude and perception towards contraceptive use. In most cases in the world particularly in Africa where people are still deep rooted in certain cultural practices and beliefs about fertility, the issue of advocating contraceptives use among teenagers has not always been successful.

### **Reasons why Teenagers resort to ICT for Contraceptive Education**

The study found six reasons why teenagers often resort to the use of ICT to acquire contraceptive education. These are; Societal perception of contraceptive, stigma, fear of insults and backbiting, fear of not getting a good partner to marry, fear of losing respect, shyness, access to mobile phones and internet and inadequate sex education

### ***Societal perception of contraceptive***

One of the cardinal reasons why teenagers resort to the use of ICT for contraceptive education is societal perception of contraceptive use. This has a great influence on teenagers' knowledge and attitude towards contraceptive use. For example, 65% of the teenagers indicated that people think that contraceptives should only be used by married couples who want to space out pregnancies has long been held by societies. Others erroneously believe that exposure to contraceptive information encourages girls to be promiscuous. Most societies in Ghana rebuke or condemn teenagers who seek such information before marriage. Some claimed their religion and cultural values do not permit them to openly discuss sex or matters related to sex. In such societies, even married people hardly discuss sex.

### ***Stigmatisation***

Stigma is another reason why teenagers resort to ICT for contraceptive information. Sociologist Erving Goffman (1963) defined stigma as a social attribute or mark that separates individuals from others based on socially given judgments. Stigma discredits and reduces the bearer from a complete and accepted person to a tainted and discounted one. It has a negative impact on self-concept and identity formation, resulting in degrees of social exclusion that ranges from difficulty to engage in normal social interactions because of secrecy or shame to complete discrediting or exclusion by others (Phelan, 2006; Livingston & Boyd, 2010). The study found that, over 56% of the respondents claimed that, the society in which they live is such that it is difficult for a girl in particular to be going around asking to know more about their reproductive functions or uses of contraceptives. They often mentioned that one can be tagged as a prostitute if she is found of asking to know more about contraceptives. One of the girls stated "*even if you know about contraceptives, you still fear to share your ideas for fear of being branded as a prostitute. They claimed that, one may find it difficult to get a good partner to marry, especially in the same community, if one has been perceived to be a prostitute. People or even your colleagues may think you use them that is why you know more about them*". Stigmatized individuals are also subjected to a range of penalizing actions, from shunning and avoidance to restraint, physical abuse, and assault (Scambler & Hopkins, 1986). The consequences of stigmatization include social isolation, and may result in mental health problems (Green et al., 2005).

### ***Insults and backbiting***

The study further found that teenagers resort to the internet to learn more about contraceptive usage because, they felt asking elders, friends or parents can attract insults and verbal abuses. The respondents frequently mentioned that, in some societies, teenagers cannot mention the male or female genital organs by their name. They felt that, asking people to know about contraceptive can often be misconstrued to mean trying to apply the knowledge which you are not qualified to use as a teenager.

### ***Shyness***

The majority (78%) of the teenagers also feel shy to ask people about contraceptives. They rather preferred to use their mobile phones to search for information about contraceptives.

### ***Access to mobile phones and internet***

Over three quarters of the teenagers have android mobile phones that enable them use the internet to access all kinds of information including reproductive health issues. During the focus group discussions, most of the girls (75%) indicated that they read a lot about their sexuality on the internet. They claimed some of them have You-tube videos on their phones that explain how to use various kinds of contraceptives and their effectiveness.

### ***Inadequate sex education***

Insufficient sex education, both at home and in schools also contributes to why teenagers often use ICT to access information about contraceptives usage. As indicated earlier, in some families, it almost unthinkable to discuss sex or anything related to sex. In the school reproductive lessons are not sufficient to address all the questions that teenagers may want to know about their body functions. Even for fear of being branded as bad girls, most girls would not ask teachers to know more about their reproductive system. To fill this knowledge gap, teenagers often resort to the use of ICT to learn more about their sexuality.

However, teenagers are greatly concerned about privacy and confidentiality related to sexual matters. It is therefore, not surprising that the majority (67%) of respondents mentioned that they use ICT in accessing contraceptive information because that is good for them and ensures their safety and confidentiality. Unmarried teenagers are at particular risk of experiencing negative attitudes from parents, teachers and health-care providers especially when trying to access certain contraceptives information or services from places where most people know them. Sometimes even married women face unsupportive attitudes from health-care providers when they seek information regarding contraceptives before beginning childbearing at reproductive health care centres and other health facilities.

These attitudinal barriers create a major disincentive to teenagers interested in receiving sexual and reproductive health information and services from service providers. In settings where adolescent health needs are not addressed, there can be serious health problems. However, research such as Bracken and Farak (2009) in Uganda and elsewhere has demonstrated low use of contraceptives among populations with high knowledge, indicating that knowledge alone does not necessarily translate to use. It is therefore, very important that vital information concerning contraceptives be made available to teenagers via ICT to enhance good attitude towards contraceptives use.

Teenagers may also experience difficulties in communicating with their parents on sexuality-related issues. This may be due to the adolescent having a different set of values in such issues, as well as the perceived notion that parents do not want (or find it inappropriate) to discuss such issues with them at home for fear of revealing certain information to them. Similarly, teenagers may not visit a health service centre if there is a perceived fear of rejection or if it will create difficulties with their partner but could do so easily with the mobile phone at home, at school or any convenient time. It has also further been stated that the attitudes of healthcare providers also contribute to the non-use of contraceptives by teenagers, since they are denied access through ridicule, despite having knowledge about contraceptives they end up becoming pregnant.

## Perception of Teenagers about Contraceptives

The study also assessed the perception of respondents towards contraceptives use. The results revealed that 35% of the respondents perceived contraceptives to be good, while 25% perceived contraceptives to be bad. The rest, (40%) were indifferent. Those who said contraceptive are good mentioned reasons such as, prevention of unwanted pregnancies and prevention of STIs. They were fully aware of the negative effects of unwanted pregnancies and STIs.

For those who perceived contraceptive usage to have side effects, the majority (78%) of them were girls who claimed some of contraceptive can lead to difficulty in conceiving pregnancy in future, headaches, discomfort, excessive bleeding or black and thick menses, early cessation of menses, early inception of menopause, and painful mensural bleeding. Other side effects they mentioned included miscarriages, blockage of fallopian tubes, and giving birth to children with various deformities. For some of them, using contraceptives, especially the male and female condoms reduce sexual pleasure, while others cited religious reasons. This finding is similar to those of Mwailla (2011), Foreman and Mia (2002), Andersen, (2009) and Ismet (2000) who indicated that teenagers expressed negative attitudes towards condoms and other methods of contraceptives use during sexual intercourse.

These mixed responses from respondents were not surprising as many of them were from different backgrounds with different sets of beliefs and norms and possible different likes and dislikes of contraceptives. However, as to whether these perceptions were also acquired from the internet and the use of ICT, most of them (45%) denied and rather claimed they are experiences of people who used them.

The above mentioned finding is similar to the work of Foreman and Mia (2011), who found that married women who did not use contraceptives most commonly cited fear of side effects and health concerns as bad aspects of contraceptives. Although the responses were not surprising, it gives a clear picture of the understanding of contraceptives among teenagers in the Municipality. However, the remaining 40% of the respondents who did not know whether contraceptives are good or bad signifies a major gap between contraceptives availability and awareness creation. This situation may be as a result of poor contraceptive education, or wrong application of the ICT in searching for credible sources of information concerning contraceptives.

The study also revealed that the most commonly used contraceptive among respondents was the male condom. Respondents claimed it is the most convenient and that even females are not shy to carry it around as compared to other methods of contraceptives. It was further revealed that most (67%) female teenagers prefer to use emergency contraceptive before or after sexual intercourse because their partners in one way or the other failed to use a known and effective contraceptive.

When sexual activity is frequent or involved multiple partners, condoms may be a preferred option. Emergency contraceptive pills are only options when condoms burst, slip or other causes of unprotected intercourse. It was found that teenagers who engaged in frequent intercourses may opt for methods that are aimed not only to protect them against pregnancy, but also need require routine use of condoms to prevent them from contracting STI/HIV.



The study further found that, the use of ITC and the internet to access reproductive education, could have been responsible to the situation where teenagers have multiple sex partners. About 40% of the respondents stated that they had more than one sexual partners. One of the girls confided with the researchers that “with my knowledge in contraceptives, and my understanding of the reproductive systems, especially my mensural cycle, I can play around without getting pregnant”. This perception and attitude could have been responsible for her multiple sex partners, paraps this explains why some teenagers have multiple sex partners. However, further interrogations with the teenagers revealed that about 27% of them had ever acquired or treated STIs such as candida and gonorrhoea. Though the study did not find out from them whether some have had HIV/AIDS, it is most likely that, those who engaged in multiple sex partners can acquire the disease.

### **ICT Tools Commonly Used for Contraceptive Information**

Additionally, respondents were also assessed on their opinions concerning how ICT could enhance their knowledge of contraceptive use. It was revealed that 80% of the respondents perceived the use of ICT in accessing contraceptives as a good idea. This response was expected as many or almost all respondents ((96%) were found with mobile phones at the time of conducting the research and this could possibly be a tool to effective dissemination of contraceptive information among teenagers. Respondents were however, very quick to state their preferred way by which they could assess contraceptive information via the internet. Seventy percent (70%) of the respondents opted for mobile phones while 20% and 5% respectively opted for iPods and computers for accessing contraceptives information via internet. This implies that, teenagers are more comfortable with the use of mobile phones in accessing contraceptives. Only a few (5%) claimed they use computers to access contraceptive information.

### **Barriers to the Use of Contraceptives among the Teenagers**

Various facility factors were considered which in a way served as barriers to effective utilization of contraceptives among teenagers. Among them are the quality of contraceptives services, availability of contraceptives information and services through many avenues including ICT, culture, personal likes and dislikes, proximity of the family planning facility and friendliness of service providers towards teenagers. Notable views provided were uncertainty by respondents about the availability of the contraceptives services as well as the availability of contraceptives information sometimes in certain recognized places at the study area making it difficult to access contraceptives.

Furthermore, some adolescents may think that talking about contraception may ruin the romantic moment or make sexual activity less fun. Nonetheless, the most basic needs of teenagers, regardless of culture, age and marital status, are for accurate and complete information about their body functions, safer sex, reproduction and sexual negotiation and refusal skills, especially for the girls. Without information, teenagers are forced to make ill-informed decisions that will potentially have profound negative effects on their lives. Since teenagers do not usually have disposable income, affordable health services are crucial for them to access needed services, including access to pregnancy-related services.



## Conclusion

The paper showed that there is widespread contraceptive awareness among the teenagers using ICT to access information about contraceptives. ICT has become a preferred means of learning about contraceptives because society shuns those who attempt to ask others to know about them. Some teenagers also resort to the use of ICT because of psycho-religious, sociocultural reasons. Yet others use ICT because they lack sex education or are shy to ask from friends, teachers and parents. Access to mobile phones and the internet has broken the barriers like cost of commodities, lack of confidence in service providers, religious beliefs and has paved the way for the youth to access contraceptive information at their convenience without a third party.

The paper showed that, the youth perceived contraceptives usage as bad and good because contraceptives have both negative and positive effects. Teenagers also perceived contraceptives use from the internet as safe, confidential and readily available at a rather low cost. All these go a long way to show that teenagers are knowledgeable about contraceptives. However, awareness is different from use or practice. The paper showed that, some teenagers still do not often use contraceptives despite the fact that they are aware of the implication of non-use.

## Recommendation

The paper first recommends that contraceptive education should be intensified through the mass media, free lectures, radio and television discussions to augment the use of ICT to expand the number of teenagers using contraceptive. This will enable those who do not have mobile phones to learn about contraceptive use. It may also help those who are afraid to ask for fear of stigma and name calling. Secondly, the Municipal Assembly in collaboration with the Ghana Health Service and School authorities should intensify education on contraceptives through ICT lessons in the schools. Poster and video show on contraceptive use could also be employed. Finally, Health staff responsible for family planning should intensify campaign against the barriers to contraceptive usage among teenagers within the Municipality.

Finally, there should be serious health education in the first and second cycle institutions as well as public places for more teenagers to get themselves involved in using contraceptive methods to avoid unplanned pregnancies and infections. Information given should consist of messages on anatomy, physiology, sexual behaviour, STIs, sexual development, conception and contraception tailored to the needs of teenagers. If this is done properly with the incorporation of ICT, more teenagers may be involved in using one form or the other of contraceptives.

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