

## **Social Media and Teenage Pregnancy among Students In Secondary Schools In Imenti North Sub-County, Meru County, Kenya**

*Kiarie Antony Kimemia & Mercy M. Mugambi*

Email [antony.kiarie3@gmail.com](mailto:antony.kiarie3@gmail.com) & [mugambimercy@yahoo.com](mailto:mugambimercy@yahoo.com)

### **ABSTRACT**

*Teenage pregnancies and the eventual dropping out of school has been and still is a major problem bedeviling the education sector in many parts of developing countries. This study investigated the influence social media on teenage pregnancies among public secondary school students in Imenti North Sub County. The study is hinged on two theories; Social learning theory and social cognitive theory. The study is further supported by the media practice model. Descriptive survey research design guided the study. Target population constituted of 5,496, form three and four students, 300 teachers and 9 education officers. A sample size of 359 participants was used and respondents picked through Stratified and Simple random sampling. Two questionnaires and an interview guide were used to collect data. Quantitative data was analyzed using descriptive statistics while qualitative data was reported in form of narratives based on the themes of investigation. The study established that access to social networking sites by students was high with much focus on sexually explicit music, sex images, videos, sex texting and student sex solicitation on line and there was limited use directed to academic information. The study therefore concluded that social media contributed to teenage pregnancy among secondary school students in Imenti North Sub County. The study recommends that the school administration puts in place guidelines and regulations on usage of media within the schools. Additionally teachers should encourage students to use media for purpose of soliciting information relevant to education especially when in school.*

**Key terms:** Social media, sex solicitation, sex texting, Teenage pregnancy

### **1.0 Background Information**

Teenage pregnancy remains a challenge requiring urgent resolution the world over (United Nations Population Fund, 2013). In 2014 the World Health Organization reported that 11% of all births were due to women aged 15-19 years (World Health Organization WHO, 2014). Approximately 95% of teenage pregnancies occur in developing countries with 36.4 million women becoming mothers before age 18 (United Nations Population Fund, 2013).

Although adolescent fertility rates are falling on a global level, approximately 18 million girls under the age of 20 give birth each year (WHO, 2014). Two million of these girls are under the age of 15. Teenage pregnancy is a problem with far-reaching effects. In 2009 United State teen birth rates are five times higher than the teen birth rates of other Western nations (Gilbert, Jandial, Field, Bigelow, & Danielsen, 2009). The incidence of teen births in the U.S. in 2010 was 41.9 out of 1000 female adolescents, and among females aged 15-19, 750,000, or 7% (Guttmacher, 2010). In the U.S, preventing teen pregnancy is generally considered a priority among policy makers and the public because of its high economic, social, and health costs for teen parents and their families. However, the continued trend of high teen pregnancy has been blamed on inappropriate sex education approaches. Many sex education programs in the United State caution young people not to have sex until they are married (Landry et al., 1999). However, most

abstinence-only programs are not effective because they fail to delay the onset of intercourse and often provide information that is medically inaccurate and potentially misleading (Kirby, 2007; Kohler et al., 2008; Lin & Santelli, 2008; Trenholm et al., 2007).

In China, unintended pregnancy is an emerging public health concern for teenagers, especially in coastal metropolitan areas, such as Shanghai and Hong Kong. For example, according to the Youth Sexuality Survey of the Family Planning Association of Hong Kong, the prevalence of premarital sex increased from 35.1% in 1996 to 44% in 2006 among unmarried males, from 27.5% in 1996 to 31.0% among unmarried females aged 18 to 27 years (WHO, 2008).

The Sub-Saharan Africa region accounts for the highest adolescent fertility rate at 119.7 compared to the global average of 58.1. It is estimated that in low and middle income countries 10% of all girls become mothers before they are 16, with the highest levels being in Sub-Saharan Africa, south-central and south-eastern Asia (WHO, 2008). Data from Demographic Health Surveys indicate that teenage pregnancy rates in Sub-Saharan Africa range from a low of 5.9 percent in Burundi to a high of 43.1 percent in Niger (World Bank, 2009).

Teenage pregnancy in Sub-Saharan Africa has important social and economic outcomes, the most highly publicized of which stem from lost educational opportunities when pregnancy forces young women to leave school. Ideally, an investigation of the consequences of adolescent childbearing and sexuality should cover a wide range of outcomes that affect not only the young mother and her child, but also other family members and society at large. Most unintended pregnancies experienced by adolescent women occur among those who are using no contraceptive method or a traditional one: 92% of those in Sub-Saharan Africa (UNFPA, 2013). The majority of countries with teenage pregnancy levels above 30% occur in sub-Saharan Africa (Sibusiso and Clifford, 2015). The 2010 South African Demographic and Health Survey (SADHS) survey indicated that 27% of women had a child by the age of 19 years. A sociological difference between teenage fertility in South Africa and other sub-Saharan countries, however, is that in South Africa child-birth to teen-aged women tends to take place outside of marriage (Makiwane & Udjo, 2012).

Both the 1998 and 2010 South Africa Demographic and Health Surveys (Department of Health 1999, 2010) showed that teenage pregnancy displays marked social patterning. Being a teenage mother was much more prevalent in rural areas (60% more likely), amongst women with lower educational attainment (a three-fold difference between completion of primary school and matric) and amongst African and coloured women (a seven-fold difference between African and Coloured women, on the one hand, and White and Indian women, on the other). The incidence was much higher amongst 18- and 19-year-olds than those in the earlier teenage years. With 25 percent of adolescent girls becoming pregnant before the age of 19, Uganda

has one of the highest rates of adolescent pregnancy in Sub-Saharan Africa. The country's high adolescent pregnancy rate has implications to girls. The risk of maternal death is higher in adolescents than in older women. A Uganda government survey on demography and health indicates that there is a higher morbidity and mortality rate among pregnant teenagers and their babies (Republic of Uganda, 2012). Furthermore, pregnant adolescent girls are more susceptible to pregnancy- and childbirth-related complications because they have not yet developed the physical maturity required for a healthy pregnancy. Other common medical problems associated with adolescent pregnancy include obstructed labour, eclampsia, fistula, low birth weight, stillbirths, and neonatal death.

In Kenya, over 40 percent of pregnancies in Kenya are unintended; that is either mistimed or unwanted. Approximately 14 percent of these pregnancies end in abortion most of these abortions are performed by unskilled people, often in conditions that do not meet minimal medical standards and are not followed with the appropriate post-abortion care. About 18 percent of adolescent girls between the ages of 15 and 19 are mothers. When adolescent girls become mothers, their opportunities for economic and educational growth are limited. Rates of adolescent childbearing are higher among those with lower levels of education; one-third of adolescent girls ages 15 to 19 with no education have already begun childbearing; the same is true among girls who have completed primary school, where just over one-third have also begun childbearing. Attending secondary school reduces adolescent motherhood. Only 12 percent of girls ages 15 to 19 with at least some secondary school education have begun childbearing. Adolescent girls from lower income levels are more likely to have begun childbearing than their wealthier counterparts. One in four adolescent girls aged 15 to 19 in the lowest wealth quintile has begun childbearing. However, even among the wealthiest, one in 10 girls ages 15 to 19 has begun childbearing. While progress has been made to lower adolescent childbearing in many regions of Kenya, in some regions it has remained nearly constant. In Nyanza region in 2003, 21 percent of adolescent girls ages 15 to 19 had already given birth and in 2014, the rate was about the same at 19 percent (Republic of Kenya, 2014). Despite there being a policy that allows young mothers to return to school, there is high female school dropout rate. According to research conducted by Plan International Kenya (2012) child marriage stands at 47.4%, cultural practices such as village dances and funerals are largely to blame for the rising teenage pregnancies. This is because such festivities attract a large number of unsupervised children who are likely to engage in risky behaviors.

Unwanted pregnancy and abortion are prevalent among school-going youth in Kenya. Teenage pregnancy in particular amongst school going girls has become a worrying trend. Teenage childbearing is common in Kenya and increases dramatically from 2 percent of girls at age 15 to 36 percent at age 19. Teenagers from poorer households are also more likely to have begun having children before the age of 20 (29 percent) compared with those from wealthier households (21 percent). Teenage pregnancies are problematic for a

number of reasons: children born to young mothers are predisposed to higher risks of illness and death; adolescent mothers are more likely to experience complications during pregnancy some of which can be fatal; and teenage pregnancies often deny young women the opportunity to pursue further education (Central Bureau of Statistics, 2010). According to a study by the Centre for the Study of Adolescence, a non-governmental organisation that works on issues related to teenage reproductive health, an estimated 13,000 Kenyan girls drop out of school annually as a result of pregnancy, and about 17 per cent of girls have had sex before the age of 15. The drop-outs occur in spite of a Return to School policy put in place by the Ministry of Education that allows girls to stay in school until delivery, and resume their studies as soon as they are strong enough to do so.

The Ameru community has undergone tremendous changes related to social norms of sexual behaviour. In this process of opening up to Western culture, the high value attached to women premarital virginity has decreased, and the societal disapproval of premarital sex has weakened. Therefore, it has become more common place for teenagers in local secondary schools to initiate intercourse prior to marriage and for unmarried women to obtain an abortion. According to Melissa (2012), teenage pregnancy could lead to incomplete education, unemployment and other numerous emotional traumas. Early motherhood had been linked to effects the psychological development of the child adversely. Beside psychological, physical risks cannot be ignored. Parents and the general community have pointed fingers to the modern technology for exposing the youth to sites that accelerate sex activities among them. Is there justification for this claim? This became the impetus for this study now that technology is worldwide.

A survey by the Kaiser family foundation of more than 2,000 youth aged between 8- 18 years from across the United States regarding their media use established that media continues to play a central role in the young people's lives. Youth spent a total of 10 hours and 45 minutes each day using various media, including television content, music/ audio, computers, video games print material and movies (Collins, Steven and Rebecca, 2011). An over view on teens use of social media and technology indicates that 24% of teens go online "almost constantly," facilitated by the widespread availability of mobile devices (Amanda, 2015). Due to convenience and constant access provided by mobile devices particularly by the smart phones, over 92 percent of teens indicated online visits as daily practice. Among teens in America, studies show that face book remains the most used social media site with 71 percent teens aged between 13 and 17 using the site and that teenage girls use social media sites and platforms particularly visually oriented ones for sharing more than their male counterparts do.

## 2.0 Statement of the Problem

Teenage pregnancy is on the increase among school going girls in Kenya resulting to high school dropout rate among girls. Table 1 shows percentage rate of teenage pregnancy for 5 years to the total number of births recorded in Imenti North, Central Imenti and South Imenti 3 Sub counties in Meru County. Given that hospitals are the catchment areas, data was collected from 3 major hospitals (Meru Level 5 Hospital, Githongo District Hospital and Nkubu Hospital) in the 3 sub counties. Data was used for comparative purposes to establish the magnitude of the problem in Imenti North Sub County and whether it is more prevalent in one of the sub county than others.

**Table 1: Teenage Pregnancy rates in 3 Sub Counties in Meru County for 5 years.**

<b>Years</b>	<b>Imenti North Sub County (Percentage of Total birth Deliveries)</b>	<b>Central Imenti Sub County (Percentage of Total Birth Deliveries)</b>	<b>South Imenti Sub County (Percentage of Total Birth Deliveries)</b>
2014	23	20	22
2013	23	19	21
2012	22	24	18
2011	15	20	15
2010	13	17	15

*Source: Meru Level 5 District Hospital, Githogo District and Nkubu Hospitals records offices.*

From the table though the rate of teenage pregnancy in Imenti North Sub County in 2010 was lower (at 13%) compared to the other two sub counties (Imenti Central at 17% and South Imenti 15%), it showed a steady alarming increase from 22 percent in 2012, with the percent being constant at 23 percent of total deliveries for both 2013 and 2014. This is an indication that teenage pregnancy is more prevalent in this Sub County.

According to Jielimishe Girls Education Challenge, a DFID funded project run by a local NGO to take adolescent mothers back to school; teenage pregnancy is a real social problem in Imenti North Sub County that leads to the girl child dropping out of school. The project is currently supporting 32 adolescent mothers that in the last two years dropped from different public secondary schools in Imenti North Sub County to go back to school. It is for this reason this study sought to investigate the factors that influence teenage pregnancy in secondary schools in Imenti North Sub County with specific reference to influence of electronic media since the community is associating increased cases of pregnancy with technology.

### 3.0 Electronic Media and Teenage Pregnancy

A very important factor contributing to early sexual initiation in adolescents is exposure to sexually explicit content especially in electronic media. Adolescents use electronic media in large numbers and are therefore uniquely positioned to be particularly vulnerable to its effects. Adolescents usually use Television, Radio, the Internet and Social Networking Sites (SNS) such as Facebook and Twitter for information and other usage. Over half of all Internet-using teens are content creators who create websites or blogs, share original media such as photos and videos, or remix content into new creations (Lenhart & Madden, 2009). A strong source of influence on adolescent attitudes, intentions and behaviors is the media. Social media are form of media created by adolescents, and thus they combine both peer and media effects. Through a single website such as Facebook, millions of adolescents are now linked to other adolescents online. Each of these ties represents a potential tie of influence. Preliminary evidence suggests that displays of sexual material on Facebook are associated with the reported intention to become sexually active among teenagers (Connell, 2009). In one American study, adolescents who viewed sexual references on their peers Facebook profiles, found them to be believable and influential sources of information (Moreno et al, 2009). Another study in the U.S found that, adolescents who perceived sex to be normative based on others Facebook profiles were more likely to report an interest in initiating sex (Litt & Stock, 2011).

Dunton et al., (2010) in his study on adolescent sexual behaviors on social media and teen pregnancy posits that adolescents were more likely to display references to sexual behavior if a peer displayed similar references. The other concern of the influence of electronic media to teenage pregnancy is sexting which involves sending, receiving, or forwarding sexually explicit messages or pictures via a cell phone or over the internet via email or a social networking site. Dowdell, Burgess and Flores (2011) in their study among American teenagers on the effects of sexting on adolescent initial sex experience and consequences such as HIV, STIs and teenage pregnancy, emphasize that sexting does not typically represent a random or anonymous event; rather it usually takes place in the context of existing offline relationships. He also argues that in most cases of sexting, the sexual photos were intended to be viewed by only a romantic partner, such as boyfriend or girlfriend. In another American study among teenage girls, sexting was associated with an increased likelihood of having engaged in sexual behavior and been at risk of STIs or adolescent pregnancy (Temple et al., 2012).

Given the anonymity of the internet and the ease with which identity can be disguised on social media, online sexual solicitation is the other area of great concern on the influence of electronic media on teenage pregnancy. In the U.S the sexual solicitation rate for teens was estimated at between 13-19% (Wolak, Mitchell and Finkelhor 2006). Unwanted online sexual solicitation which involves encouraging someone to

talk about sex, to do something sexual, or to share personal sexual information even when that person does not want to, is high among adolescent who have minimal parental supervision in terms of access to the internet (Ybarra, Espelage and Mitchell (2007) This puts teenagers at risk of early sexual initiation and consequences such as STIs and teenage pregnancy. Online sexual predation occurs when an adult makes contact with a minor with intent to engage in sexual activities that would result in statutory rape. Teenagers are much more likely to receive sexual solicitation between same-age teens than sexual predation and most of these solicitations come from same-age peers who are known offline (Carroll & Kirkpatrick, 2011). According to the National Campaign to Prevent Teen and Unplanned Pregnancy in the U.S, (2012) as many as 20% of teens reported they have sent/posted nude or semi-nude pictures or videos of themselves. Teens in relationships may also receive nude pictures or be pressured to send nude pictures of themselves to a partner. Relationship abuse can also include sending nonstop text messages or posting cruel comments on a boyfriends or girlfriends Facebook or MySpace page (Clifford, 2009).

In the absence of widespread, effective sex education at home or in schools, television and other online electronic media have arguably become the leading source of sex education in the United States (U.S) (Strasburger, 2015). What children and adolescents see, hear, and read in the media is assumed to influence their social development and behavior. Various studies have shown that the American electronic media is the most sexually suggestive in the world and that the media far outranked parents or schools as the source of information about birth control. Research also found a direct relationship between the amount of sexual content children see and their level of sexual activity or their intentions to have sex in the future (Pardun, L'Engle and Brown 2015).

Bleakley et al., (2008) demonstrates that the relationship between exposure to sexual content and sexual activity can be characterized by a feedback loop: the more sexual activity adolescents engage in, the more likely they are to be exposed to sex in media; and the more they are exposed to sex in media, the more likely they are to have progressed in their sexual activity. A study by Kim et al., (2006) found that increased exposure to sexual content was positively associated with such variables as friends approval of sex, noncoital sexual experience, having a television in the bedroom, unsupervised time after school, participation in sports, active viewing of television, average television viewing, motivation to learn from television, and several demographic characteristics such as age, race, and gender.

A study by Chandra, Martino and Collins (2008) shows that teens who watch a lot of television with sexual content are more likely to have sexual intercourse and that there is evidence that youth exposure to sexual content on television shapes sexual attitudes and behavior in a manner that may influence reproductive health outcomes. Teens who were exposed to high levels of television sexual content (90<sup>th</sup> percentile) were

twice as likely to experience a pregnancy compared with those with lower levels of exposure (10<sup>th</sup> percentile).

Through television which can now be viewed online and shared through Social Networking sites (SNSs) each year American children and teenagers view nearly 14,000 sexual references, innuendoes, and behaviors, few of which (less than 170) involve the use of birth control, self-control, abstinence, or responsibility (Harris & Associates, 1988). Brown et al., (2006) argues that exposure to sexual content on television is associated with expectations about sex, perceptions of peer sexual behavior, sexually permissive attitudes, and sexual initiation. However, the greater the proportion of television viewing time that contained sexual content, the more likely it was that an adolescent had engaged in sexual intercourse. Collins et al., (2004) used a two-wave longitudinal survey of 12- to 17-year-olds and found that watching sex on television (based on a content analysis of 23 television programs) predicted and possibly hastened sexual initiation. Chandra, et al., (2008) found that teens who viewed more sex content on television were more likely to become pregnant. Ward et al (2011) emphasizes that sexual socialized television viewing is positively correlated with higher levels of sexual experience, having more sexual partners and more negative attitude towards abstinence. He further argues that greater exposure to music videos and talk shows, and stronger identification with popular media characters, each predict a greater level of dating and sexual experience among high school students which in most cases results to STIs infections and teenage pregnancy.

In addition to television, digital print media, and music with explicit content which can all be shared through SNSs, the Internet is another viable way for adolescents to gain information about sexuality (Flowers-Coulson, Kushner & Bankowski, 2009). The internet is a major contributor of wrong information about sex to the adolescents (Kanuga and Rosenfeld, 2010). More than 90% of the children between 3<sup>rd</sup> and 10<sup>th</sup> grade are exposed to pornography, and that access, affordability and anonymity has made online sexual activity extraordinarily common among all ages, including adolescent (Sullivan & Ziegert, 2008).

Contemporary online magazines reflect the same trend as seen in television and movies present a shift away from naive or innocent romantic love in the 1950s and 1960s to increasingly clinical concerns about sexual functioning (Planned Parenthood, 2006). A content analysis of online British magazines for teens found that girls magazines tend to focus on romance, emotions, and female responsibility for contraception, whereas boys magazines were more visually suggestive and assumed that all males were heterosexual (Batchelor, Kitzinger & Burtney, 2004).

However, studies show that boys are less affected by electronic media as compared to girls. Girls, more than boys, rely on the media as an important site of information about sex and relationships, reflecting the wide

range of publications available to them. For boys, the media has less of a role and school is a more important source of information (Burtney 2000). In an Irish study, Holland et al., (1998), the silence around female sexual pleasure in all areas of formal and family sex education drives many young women to seek alternative sources of information and this is mostly the media.

The media has an important role in pregnancy prevention. With a long term teenage pregnancy prevention media campaign, the consequences of illicit unprotected sex that can result to early pregnancy can be avoided. Airing of commercials or public information campaigns can instill behavior change and delayed sexual debut among teens resulting in postponement of childbearing. In the Netherlands, Germany and France in which teenage birth rates are many times lower than that in the U.S, there are promotions of healthy, lower-risk sexual behavior through national media campaigns that have a high degree of influence with young women and men (Berne & Huberman, 2011).

#### **4.0 Theoretical perspective**

This study is hinged on two theories: Social learning theory and social cognitive theory. The study is further supported by the media practice model. Banduras, (1977) Social Learning theory identifies 3 main processes involved in learning: direct experience, indirect or vicarious experience from observing others (modeling), and the storing and processing of complex information through cognitive operations. This theory suggests that behaviors are learned and that they are influenced by social context; the media and more so television is seen as an increasingly influential agent of socialization that produces its effects through teenagers' propensity to learn by imitation. In applying Social Learning Theory to adolescent pregnancy, a major component would be modeling: adolescents imitate behavior from others in their environment through observational learning. The social learning and the social cognitive theory argue that screen media exposure leads to cognitive acquisition of behavior along with their expected social, emotional and cognitive consequences.

Another theoretical framework is the Media Practice Model developed by Jeanne and Brown in 1995. The model is used within the area of mass communication to focus on everyday activities and routine of media consumption. The model helps to understand what drives teenagers to pick one media source over another and what factors influence the choices they make. The model emphasis constant interaction between the consumers and the media stressing that environmental and daily practice allow the media to have stronger or weaker effects on them (Steele & Brown, 1995).

## 5.0 Research Methodology

The study adopted the descriptive survey research design to investigate the influence of electronic media on teenage pregnancy in Imenti North Sub County. Descriptive survey research design assisted the researcher to gather both qualitative and quantitative data on how social media influence teenage pregnancy in the Sub County. Through this design the study was able to establish the link between study variables and study problem. This is because survey research design enabled the researcher to ask the respondents about their perceptions, attitudes, behaviors and values in regard to the research topic. Survey design is also an effective vehicle to collect data from samples representing large populations. A sample size of 458 was used for the study involving class teachers, students and education officers. Stratified and simple random sampling procedures were used to select subjects. Questionnaires were self-administered to teachers and students with face to face interview conducted for education officers. The collected data edited checked for completeness and then coded. Quantitative data was analyzed using descriptive statistics making use of Statistical Package for Social Sciences (SPSS) version 21.0 and the results presented using frequency tables, pie charts, bar graphs and percentages to make meaningful conclusions. Qualitative data were analyzed through content analyses by organizing data into themes, patterns and sub-topics guided by the objectives of the study.

## 6.0 Findings and Interpretations

The study sought to determine the influence of electronic media on teenage pregnancy in Imenti North Sub-county. The results are as presented in the subsequent sections.

### Electronic media influence on teenagers

The respondents were requested to indicate whether they thought that electronic media influences teenagers to have sex at an early age. The findings are as shown in Table 2.

**Table 2: Electronic media influence teenagers to have sex at an early age**

	Teachers		Students	
	Frequency	Percentage	Frequency	Percentage
Yes	43	63.6	148	52.3
No	25	36.4	135	47.7
<b>Total</b>	<b>68</b>	<b>100</b>	<b>283</b>	<b>100</b>

From the findings 63.6% of the teachers indicated that electronic media influences teenagers to have sex at an early age while 36.4% indicated it does not. From the students findings, 52.3% of the students indicated that electronic media influences teenagers to have sex at an early age while 47.7% of the students indicated that electronic media does not influence. From these findings it was deduced that electronic media influences teenagers to have sex at an early age.

### Teaching of Electronic media influence on teenage sex

The respondents were further requested to indicate whether they thought that the influence of electronic media on teenage sex should be taught in secondary schools. The findings are as shown in Table 3.

**Table 3: Responses on teaching the influence of electronic media on teenage sex in secondary schools**

	Frequency	Percentage
Yes	50	73.9
No	18	26.1
<b>Total</b>	<b>68</b>	<b>100</b>

Majority (73.9%) of the respondents indicated that the influence of electronic media on teenage sex should be taught in secondary schools while 26.1% indicated it should not be taught. From this, we can infer that the influence of electronic media on teenage sex should be taught in secondary schools.

### Media and Teenage sex

The students were further requested to indicate the social media that they perceived to significantly influence teenage sex. The responses are as shown in Table 4.

**Table 4: Social media that significantly influenced teenage sex**

	Frequency	Percentage
Online Television	23	8.0
Social Networking sites	74	26.1
The internet	52	18.2
Online Radio	45	15.9
Sexting on Mobile Phones	90	31.8
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 31.8% of the students indicated that sexting on mobile phones significantly influence teenage sex, 26.1% of the students indicated social networking sites, 18.2% indicated the internet, and 15.9% indicated online radio while 8% indicated online television. From these findings it was inferred that sexting on mobile phones significantly influences teenage sex. Researchers from Rand Health say that exposure to sex on television may influence teen pregnancy by creating the perception that there is little risk to engaging in sex without using contraceptives and accelerating the initiation of sexual intercourse. The study found that: Teens who watch a lot of television with sexual content are more likely to initiate sexual intercourse in the following year and that frequent exposure to TV sexual content was associated with a significantly greater likelihood of teen pregnancy in the three years following exposure.

### Media Usage

The students were also asked to indicate media that they personally used, at home or at school. The findings are as shown in Table 5.

**Table 5: Media usage by students at home or at school**

	Frequency	Percentage
A Television	10	3.4
A Radio set	38	13.6
The Internet	113	39.8
Social networking sites	32	11.4
Smart Cell phones	90	31.8
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 39.8% of the students indicated that they personally used the internet at home or at school, 31.8% of the students indicated smart call phone, 13.6% indicated a radio set, 11.4% indicated social networking sites while 3.4% indicated a television. From these findings it was inferred that students personally used the internet at home or at school and that all students had access to the use of media.

### Material students look for using the electronic media

The students were also asked to indicate the kind of material they looked for using the electronic media. The results are as shown in Table 6.

**Table 6: Material students looked for using the electronic media**

	Frequency	Percentage
Educational Material /Do research for homework	55	19.3
Look for information on sex health and sexuality	10	3.4
Explicit Music	74	26.1
Adult rated movies /Pornography	77	7.3
Educational Scholarships	16	5.7
Look for information on Alcohol and Drugs	29	0.2
Look for information on health topics	23	8.0
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 27.3% of the students indicated that the kind of material they look for using the electronic media is adult rated movies /pornography, 26.1% of the students indicated explicit music, 19.3% indicated educational material /do research for homework, 10.2% indicated look for information on sex health and sexuality, 8% indicated look for information on health topics, 5.7% of the students indicated educational scholarships while 3.4% of the students indicated that they look for information on sex health and sexuality. From these findings we can infer that the kind of material students look for using the electronic media is adult rated movies /pornography.

### Mobile phone ownership and usage among students

The students were also requested to respond to some statements regarding ownership and usage of mobile phones. The results are shown in Table 7.

**Table 7: Mobile phone ownership and usage among students**

	Frequency	Percentage
--	-----------	------------

I have my own mobile phone	83	29.5
I share a mobile phone with my family members	74	26.1
I share a mobile with my friends	45	15.9
I share SIM cards with my family members	58	20.5
I share SIM cards with my friends	29	10.2
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 29.5% of the students indicated that they had their own mobile phones, 26.1% of the students indicated they share a mobile phone with their family members, 20.5% indicated they share SIM cards with their family members while 10.2% indicated they share SIM cards with their friends. From these findings, it was inferred that in one way or another all students had access to mobile phone usage.

### Student Sex solicitation online

Unwanted online sexual solicitation is defined as “the act of encouraging someone to talk about sex, to do something sexual, or to share personal sexual information even when that person does not want to” (Ybarra, 2007). The teachers were requested to indicate whether students in their school report having been solicited for sex online. The findings are presented in Table 8.

**Table 8: Students in the school report being solicited for sex**

	Frequency	Percentage
Yes	45	65.9
No	23	34.1
<b>Total</b>	<b>68</b>	<b>100</b>

From the findings tabled above, 65.9% of the respondents indicated that students in their school have reported cases where they had been solicited for sex online, while 34.1% indicated they have not. From this, we can infer that students in the school report to have been solicited for sex online.

### Listening to sexually explicit music

Teachers were additionally requested to indicate how often they found their students listening to sexually explicit music on their mobile phones. The results are shown in Table 9.

**Table 9: Frequency of students listening to sexually explicit music on their mobile phones**

	Frequency	Percentage
Once a week	9.0	13.6
2 times a week	17.0	25.0
3 times a week	35.0	51.1
5 times week	7.0	10.2
<b>Total</b>	<b>68</b>	<b>100</b>

From the findings, 51.1% of the respondents indicated that they found their students listening to sexually explicit music on their mobile phones 3 times a week, 25% indicated 2 times a week, 13.6% indicated once a week while 10.2% indicated 5 times a week. From these findings we can infer that students listen to sexually explicit music on their mobile phones 3 times a week.

### Students sexting in class

While most teens use messaging responsibly, it is still an extremely powerful and private communication tool that can be used irresponsibly. With texting, teens cannot see the reaction of the person receiving the message, so their actions can be separated from the consequences.

The teachers were additionally requested to indicate how often they found their students sexting in class. The results are as shown in Table 10.

**Table 10: Frequency of students' sexting in class**

	Frequency	Percentage
Once a week	12	17.0
2 times a week	28	40.9
3 times a week	15	22.7
5 times week	13	19.3
<b>Total</b>	<b>68</b>	<b>100</b>

From the findings shown above 40.9% of the respondents indicated that they found their students sexting in class 2 times a week, 22.7% indicated 3 times a week, 19.3% indicated 5 times a week while 17% indicated once a week. From these findings it was inferred that sexting in class among students was a common practice.

### Internet access

The students were also asked to indicate how often they connect to the internet. Their responses are as shown in Table 11.

**Table 11: Frequency of students connecting to the internet**

	Frequency	Percentage
Once a day	23	8.1
Twice a day	31	11.1
3 times a day	43	15.2
4-6times a day	94	33.3
7-9times a day	60	21.2
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 33.3% of the students indicated that they connect to the internet 4-6times a day, 21.2% of the students indicated 7-9times a day, 15.2% indicated 3 times a day, 11.1% indicated twice a day while 8.1% indicated once a day. From these findings we can infer that they connect to the internet 4-6times a day.

### Chatting about with people

The students were asked to indicate topics they chatted about with people using their mobile phone or computer. Their responses are as shown in Table 12.

**Table 12: Topics on which students chatted**

	Frequency	Percentage
Love life and/ or dating	16	5.7
Schoolwork and homework	19	6.8
Explicit Music, movies and celebrities	71	25.0
Gossip /stories about people at school or in the community	93	33.0
Sports	74	26.1
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 33% of the students indicated that they chat about gossip /stories about people at school or in the community with people using their mobile phone or computer, 26.1% of the students indicated sports, 25% of the students indicated explicit Music, movies and celebrities, 6.8% indicated schoolwork and homework while 5.7% indicated Love life and/ or dating. From these findings we can infer that student chat about gossip /stories about people at school or in the community with people using the mobile phone or computer.

#### 4.6.12 Student activities on the Internet

The students were also asked to indicate the activities they were involved in mostly using the internet. Their responses were as shown in Table 4.41.

**Table 13: Student activities using the internet**

	Frequency	Percentage
Sent a message via Whatsapp	38	13.6
Used a social networking site like Facebook	52	18.2
Used Twitter	45	15.9
Used You Tube	35	12.5
Shared pictures or videos of myself online	23	8.0
Chatted online with someone I have not met in person	32	11.4
Sent a sexual text on my mobile phone	58	20.5
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 20.5% of the students indicated that they sent a sexual text on their mobile phones, 18.2% of the students indicated they used a social networking site like Facebook, 15.9% of the students indicated they used Twitter, 13.6% indicated sent a message via Whatsapp, 12.5% indicated they used You Tube, 11.4% indicated they used chatted online with someone they had not met in person, while 8% indicated they shared pictures or videos of themselves online. From these findings it can be deduced that many students sent a sexual text on their mobile phones.

### Sexual image

The students were further asked to indicate whether they have ever seen any sexual images when using their phone, television or the internet. Their responses are as shown in Table 14.

**Table 14: Responses to statements on sexual image**

	Frequency	Percentage
No	16	5.7
Yes I opened an attachment by mistake	80	28.4
Yes, it popped on my screen when I was browsing the internet	61	21.6
Yes, I wanted to see	83	29.5
Yes, a friend sent me a photo or a video	42	14.8
<b>Total</b>	<b>283</b>	<b>100</b>

From the findings, 29.5% of the students indicated yes, that they wanted to see, 28.4% of the students indicated yes that they opened an attachment by mistake, 21.6% of the students indicated yes, that it popped on my screen when they were browsing the internet, 14.8% indicated yes, that a friend sent me a photo or a video while 5.7% indicated no. From these findings we can deduce that the students wanted to see /hear sexual images or hear sexual discussions.

### Statements on electronic media and teenage pregnancy

The respondents were also asked to indicate the extent to which they agreed with some statements on electronic media and teenage pregnancy. The results are as shown in Table 16.

**Table 15: Level of agreement with statements on electronic media and teenage pregnancy**

Statement	Mean	Std. Deviation
Seeing characters in popular online television shows and the internet acting a certain way about sex significantly influence how I feel about sex and sexuality in real life.	4.0348	.96032
Facebook, WhatsApp and other SNSs do not influence how teenagers feel about sex and sexuality in real life.	4.1673	.86545
Parental control on their children's access to social networking sites and the internet reduces chances of sexual relationships among teenagers and teenage pregnancy	3.6384	.79848
The watching of adult rated movies and explicit music online by students does not influences teenage pregnancy.	4.0348	.96722
Teachers control of their students access to social networking sites, the internet reduces chances of sexual relationships among students	3.8930	.96893

and teenage pregnancy		
Teachers limited technological savvy hinders their ability to control students access to explicit content on social media	4.1044	.38524
Students only use the internet as a good educational research tool.	3.9115	.86728

Regarding statements on electronic media and teenage pregnancy, the respondents agreed that Facebook, WhatsApp and other SNSs do not influence how teenagers feel about sex and sexuality in real life as shown by a mean score of 4.1673. The respondents also agreed that teachers' limited technological knowhow hindered their ability to control students access to explicit content on social media as shown by a mean score of 4.1044. Further, the respondents agreed with a mean score of 4.0348 that watching of adult rated movies and explicit music online by students does not influences teenage pregnancy. Also, the respondents agreed with a mean of 3.9115 that students only use the internet as a good educational research tool, teachers control of their students access to social networking sites, the internet reduces chances of sexual relationships among students and teenage pregnancy as shown by a mean score of 3.8930 and that parental control on their children's access to social networking sites and the internet reduces chances of sexual relationships among teenagers and teenage pregnancy as shown by a mean score of 3.6384.

The interviewees said that the education office has provided guidelines to schools on how their students should use the internet. They added that they often receive cases of teacher student sexual relationships that result to teenage pregnancy from the Sub County.

## Conclusion

The study concluded that electronic media had a major influence on teenage pregnancy among secondary school students in Imenti North Sub-county due to high usage and the concentration on sex related information.

## Recommendations

The Ministry of Education through Kenya Institute of Curriculum Development should integrate teachings on influence of social media in the secondary school syllabus through appropriate carrier subjects. At the school level, guidelines and regulations should be put in place to regulate usage of media within the schools. The school administration and teachers should encourage students to use media for purpose of education especially when in school.

## REFERENCES

- Amada, M. (2015). Tracking female pregnancy  
[http:// www.the dailybeast.com/contributors/amada- marcotte.html](http://www.the-dailybeast.com/contributors/amada-marcotte.html)
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Batchelor, S. A., Kitzinger, J. and Burtney, E. (2004). Representing young peoples' sexuality in the youth media. *Health Education Research*, 19, 669–676.
- Berne, L. and Barbar, H. (2011). *European Approaches to Adolescent Sexual Behavior and Responsibility*. Washington DC: Advocates for Youth.
- Bleakley, A., Hennessy, M., Fishbein, M. and Jordan, A. (2008). It works both ways: The relationship between exposure to sexual content in the media and adolescent sexual behavior. *Media Psychology*, 11, 443–461.
- Brown, J. D., Lengle, K. L., Pardun, C. H., Guo, G., Kenneavy, K., and Jackson, C. (2006). Sexy media matter: Exposure to sexual content in music, movies, television, and magazines predicts Black and White adolescents' sexual behavior. *Pediatrics*, 117, 1018–1027.
- Burtney, E. (2000) *Teenage sexuality in Scotland*. Health Education Services Board for Scotland, Edinburgh
- Carroll, J.A. and Kirkpatrick, R.L. (2011). *Impact of social media on adolescent behavioral health*. Oakland, CA: California Adolescent Health Collaborative.
- Centers for Disease Control and Prevention (CDC). (2006). Youth risk behavior surveillance- United States, 2005. *Morbidity & Mortality Weekly Report*, 55(SS-5), 1–108.
- Central Bureau of Statistics (CBS) [Kenya], Ministry of Health (MOH) [Kenya], and ORC Macro, (2004). *Kenya Demographic Health Survey 2003*. Calverton, Maryland: CBS, MOH, and ORC Macro.
- Chandra, A., Martino S. C., and Collins, R. L. (2008). Does watching sex on television predict teen pregnancy? of Findings from a National Longitudinal Survey Youth. *Pediatrics*. ; 122:1047–1054
- Clifford, S. (2009,). *Straight talk on digital harassment for teenagers*. The New York Times. Retrieved on 21<sup>st</sup> January, 2015 from <http://www.nytimes.com/2009/01/27/technology/27iht-adco.1.19705877.html>.
- Collins, R. L., Elliott, M. N., Berry, S. H., Kanouse, D. E., Kunkel, D. and Hunter, S. B. (2004). *Watching sex on television predicts adolescent initiation of sexual behavior*. *Pediatrics*, 114, 280.
- Collins, Rebecca L., Steven Martino and Rebecca Shaw (2011). *Influence of New Media on Adolescent Sexual Health: Evidence and Opportunities*. Santa Monica, CA: RAND Corporation, Retrieved on 21<sup>st</sup> January 2015 [http://www.rand.org/pubs/working\\_papers/WR761.html](http://www.rand.org/pubs/working_papers/WR761.html).
- Connel, R. S. (2009). Academic libraries, Facebook and Myspace and student outreach: A survey of student option. *Portal: Libraries and the Academy* 9 (1) 25-36.
- Department of Health. (2002). *South African Demographic and Health Survey 1998*. Pretoria: Department of Health.

- Department of Health. (2007). *South African Demographic and Health Survey 2003*. Pretoria: Department of Health.
- Dowdell, E. B., Burgess, A. W., and Flores, J. R (2011). Online Social networking patters among adolescents, young adults and sexual offenders. *America Journal of Nursing*, 111(7)28- 36.
- Dunton, G. F; Liao, Y., Intille, S.S, Spruijt –Metz, D; and Pentz, M. (2010). *Investigating Childrens Physical Activity and Sedentary Behavior using Ecological Momentary Assessment with Mobile Phones*.
- Flowers-Coulson, P. A., Kushner, M. A., and Bankowski, S. (2009). The information is out there, but is anyone getting it? Adolescent misconceptions about sexuality education and reproductive health and the use of the Internet to get answers. *Journal of Sex Education and Therapy*, 25(2/3), 178-188.
- Guttmacher Institute, (2010). *US Teenage Pregnancies, Births and Abortions: National and State trends*. New York, NY. Retrieved from (<http://www.guttmacher.org/pubs/FB-Adolescents-SRH.pdf>).
- Holland, J., Ramazanoglu, C., Sharpe, S. and Thomson, R. (1998). *The Male in the Head: Young People, Heterosexuality and Power*. The Tufnell Press, London.
- Kenya Demographic and Health Survey (2014). Nairobi: Rockville, MD: ICF International.
- Kim, J. L., Collins, R. L., Kanouse, D. E., Elliott, M. N., Berry, S. H. and Hunter, S. (2006). Sexual readiness, household policies, and other predictors of adolescents exposure to sexual content in mainstream entertainment television. *Media Psychology*, 8, 449–471.
- Kirby, D. (2007). *Research Findings On Programs To Reduce Teen Pregnancy And Sexually Transmitted Diseases*. Washington, DC: The National Campaign to Prevent Teen and Unplanned Pregnancy. 2007.
- Kanuga, M. and Rosenfeld, W. D. (2010). Adolescent sexuality and the Internet: The good, the bad and the URL. *Journal of Pediatric and Adolescent Gynecology*, 17, 117–124.
- Kohler, P.K., Manhart, L.E and Lafftery, W.E (2008). Abstinence-Only and Comprehensive Sex Education and the Initiation of Sexual Activity and Teen Pregnancy. *Journal of Adolescent Health*, 42(4), 344–351.
- Landry, E., Bertrand, J.T., Cherry, F., and Rice, J. (1999). Teen Pregnancy in New Orleans: Factors that differentiate who deliver, abort and successfully contracept. *Journal of Youth ad Adolescence*, 15, 259-274
- Lenhart, A. and Madden, M. (2009). *Teens, privacy, online social networks: How teens manage their online identities and personal information in the age of myspace*. Washington, DC: Pew Internet & American Life Project.
- Lin, A., and Santelli, J. (2008). The accuracy of condom information in three selected abstinence-only education curricula. *Sexuality Research and Social Policy*, 5(3), 56–69.

- Litt, D. M., and Stock, M. L. (2011). *Adolescent Alcohol-Related Risk Cognitions: The Roles of Social Norms and Social Networking Sites*. Psychology of Addictive Behaviors Advance online publication. doi: 10.1037/a0024226
- Makiwane, M., and Udjo, O. E. (2012). *Is The Child Support Grant Associated with an Increase in Teenage Fertility in South Africa? Evidence from national surveys and administrative data*. Pretoria: Human Sciences Research Council.
- Melissa, F. (2012) Teenage pregnancy from <http://wwerarly> Symptoms of pregnancy.
- Moreno, M. A., Vanderstoep, A., and Parks, M. R. (2009). Reducing at-risk adolescents' display of risk behavior on a social networking web site: A randomized controlled pilot intervention trial. *Archives of Pediatrics & Adolescent Medicine*. 2009;163(1):35–4
- National Campaign to Prevent Teen Pregnancy. (2006). *Pregnancy among sexually experienced teens, 2002*. Washington, DC: Author.
- National Campaign to Prevent Teen and Unplanned Pregnancy. (2008). A Look at Latinos: An Overview of Latina Teen Pregnancy and Birth Rates. National Campaign to Prevent Teen and Unplanned Pregnancy; Washington, D C.
- Pardun, C.J., L'Engle, K.L., and Brown, J.D., (2015). Linking exposure to outcomes: Early of sexual content in six media. *Mass Communication and Society*, 8, 75-91.
- Planned Parenthood Federation of America. (2006). *PPFA Maggie Awards: Ripped from the headlines*. Retrieved June 21, 2006, from <http://www.plannedparenthood.org/pp2/portal/files>
- Republic of Kenya.( 2014). Demographic Health Survey in Kenya.
- Republic of Uganda, Uganda Bureau of Statistics and ORC Macro (2012). *Uganda Demographic and Health Survey 2006*. Kampala: Uganda Bureau of Statistics and Macro International Inc.
- Sibusiso,M.\$ Clifford, O.(2015).Teen Pregnancy in Sub-Saharan Africa: The Application of Social Disorganisation Theory
- Steele, J.R., and Brown, J.D. (1995) Adolescent Room Culture: Studying Media in the context of everyday life. *Journal of Youth & Adolescence* 24, 551-576.
- Strasburger, V. C. (2015). Adolescents, sex, and the media: Oooo, baby, baby—a Q&A. *Adolescent Medicine Clinics*, 16, 269–288.
- Sullivan, D.H. and Ziegert, A.L. (2008). Hispanic immigrant poverty: Does ethnic origin matter? *Population Research and Policy Review*. 2008; 27(6):667–687.
- Temple, J.L., Paul, J.A., van den berg P., D.L., V., McElhany, A., and Temple, B.W (2012). Teen sexting and its association with sexual behaviors. *Archives of Pediatrics and Adolescent Medicine*, 18, 269–288.
- The World Bank , (2009). *Children and Youth*. The World Bank, Washington D.C Available from:<http://siteresources.worldbank.org/INTCY/Data/20333440/YIN-SA.pdf> Accessed 10<sup>th</sup> February 2015.
- Trenholm, C. Devaney, B. Fortson, K. Quay, L. Wheeler, J. Clark, M. (2007). *Impacts of Four Title V, Section 510 Abstinence Education Programs: Final Report*. Princeton,

NJ:MathematicaPolicyResearch,Inc.[Online].<http://www.mathematicampr.com/publications/pdfs/impactabstinence.pdf>,accessed February 19<sup>th</sup>, 2015.

United Nations Population Fund (UNFPA), State of World Population 2003—Making 1 Billion Count: Investing In Adolescents Health And Rights, New York: UNFPA, 2003.*Urban Education*, 22, 496-509.

United Nations Population Fund. (2013). *Motherhood in Childhood: Facing the challenge of adolescent pregnancy*. New York: UNFPA.

World Health Organization. (2014). *Adolescent Pregnancy*. Retrieved 2 April, 2014, from [http://www.who.int/maternal\\_child\\_adolescent/topics/maternal/adolescent\\_pregnancy/en/](http://www.who.int/maternal_child_adolescent/topics/maternal/adolescent_pregnancy/en/)

Ward, L. Epstein, M. Caruthers, A., and Merriwether, A., (2011) Does television exposure affect emerging adults' attitudes and assumptions about sexual relationships? Correlational and experimental confirmation. *Journal of Youth and Adolescence*. 31:1–15

Wolak, J., Mitchell, K. and Finkelhor D. (2006). Online Victimization of Teenagers. Retrieved on March 3, 2011 from website:  
[http://www.missingkids.com/en\\_US/publications/NC167.pdf](http://www.missingkids.com/en_US/publications/NC167.pdf)

World Health Organization (WHO). (2004) *Adolescent Pregnancy*: Available online: [http://www.who.int/maternal\\_child\\_adolescent/topics/maternal/adolescent\\_pregnancy/en/](http://www.who.int/maternal_child_adolescent/topics/maternal/adolescent_pregnancy/en/) (accessed on 28 February 2015).

World Health Organization (WHO). (2008). *Adolescent Pregnancy*. Making Pregnancy Safer Note; s, 1 (1). Geneva, Switzerland,1(1).Geneva, Switzerland: WHO. Retrieved from [www.who.int/maternal\\_child\\_adolescent/document/mpsnnotes\\_2\\_lr.pdf](http://www.who.int/maternal_child_adolescent/document/mpsnnotes_2_lr.pdf).

Ybarra, M.L, Espelage, D. L, and Mitchell, K.J. (2007). The co-occurrence of Internet harassment and unwanted sexual solicitation victimization and perpetration: Associations with psychosocial indicators. *Journal Adolescent Health*. 7(9), 342