Effects of Adolescents Exposure to Sexual Contents on Social Media in Nigeria

Emmanuel Olagunju Amoo
Demography and Social Statistics, School of Social Sciences,
Covenant University, Canaanland, Ogun State, Nigeria.
e-mail: emma.amoo@covenantuniversity.edu.ng; amco50amoo@gmail.com

Gbemisola Wuraola Adetoro
and
Adebanke Olawole-Isaac

Abstract

The study examined the effects of adolescents' exposure to sexual contents through social media in Nigeria. Data was gathered using quantitative structured face-to-face interviews among 305 literate adolescents. They were distributed using Nigerian age-sex ratio of 51 and 49 between male and female respectively. One adolescent per house/building was purposively interviewed within randomly chosen streets in the locations of study. The study locations consist of densely populated urban areas in Lagos metropolis, Nigeria. The locations were chosen due to high proportion of adolescents in the areas according to the country's census results. Data were analysed using univariate and multivariate analyses. Common social media identified among the respondents includes Facebook, Twitter, YouTube, Flickr, Instagram and LinkedIn. The result also revealed that users of social media in age group 10-14 years are 4.614 times more likely to be exposed to sexual activity at P-value = 0.000. Adolescent users of social media with primary education are 26.953 times more likely to be involved in sexual activity (P-value = 0.000). Those who use social media like Twitter, Facebook, YouTube and Instagram are 6.932, 4.630, 3.566 and 2.682 times (respectively) more likely to be exposed to sexual activity compared to their counterparts that use other forms of media. The paper posits that it is inimical not to monitor adolescents' exposure to sexual contents and censor the scenes available on social media gadgets. The study recommends that sexuality education must be popularised in order to stem the risk of HIV/AIDS among the group studied.

Key words: Adolescent, sexual content, social media

Introduction

The emerging social changes brought about by astronomical expansion in information and communication technology (ICT) is capable of re-energising revolution against traditional harmful practices but also represents the medium through which sexual misdemeanour are propagated. Currently, there are raging controversies surrounding the way sexuality and coverage of sexual issues is being portrayed in the media (Buerkel-Rothfuss *et al*, 1993; Council on Communications and the Media, 2010; Ojo, 2007; Tiemoko & Oku-Egbas, 2006). Specifically, the preponderance of sexually 'attractive' scenes on new media technology is becoming appalling and calls for concern especially in this age that young people are the closest to such media. It also portends danger for a transiting economy like Nigeria and can jeopardise the sustainable development agenda of several developing countries with larger younger population. Thus, in an era when issues of sexual reproductive health and rights have become important and sometimes threatening to human existence, it is imperative to examine the exposure and abuse of these tools and their implications among the adolescents.

There are currently over 500 million cell phones in Africa (International Telecommunication Union (ITU), 2013). In Nigeria, the proportion of individuals using internet increased from 0.06% to 3.6%

between 2000 and 2005 and thereafter it increased from 24% to 32.9 percent between 2010 and 2012. The bulk of these users are young individuals aged less than 25. Adolescents form up to 22 percent of Nigerian population out of which 48 percent are girls (National Population Commission, NPC, 2010). While these young adults are adjudged to be biologically matured to become fathers and mothers, they are socially ill-matured to be responsible fathers or mothers of responsible children owing to the degree of reproductive health illiteracy they exhibits and the vulnerability to sexual misdemeanours. Approximately, 19 million new STDs each year occur among young people worldwide and the bulk is always from developing nations (United States Centers for Disease Control and Prevention, 2013). Thus, it is exigent to bring to limelight the degree of vulnerability of adolescents to sexual content and the consequences of such exposure. The overall goal is to enhance responsible sexual reproductive health behaviour among the adolescents in a bid to engender sustainable development in Nigeria and other sub-Saharan Africa countries.

Objective of the study

The thrust of the study is to assess the effects of adolescents' exposure to sexual contents through social media in Nigeria. It is also meant to reveal the vulnerability of the target population to sexual contents and entrench the policy implications toward attaining sustainable development in sub-Saharan countries.

Literature Review

Adolescent is conceptualised as individual (male or female) who is experiencing onset of physical/sexual maturation and reproductive capacity. These populations have numerous needs and their rights to know about their bodies, to be educated and informed about their sexual health must be protected. As expected, they face myriads of social, emotional, psychological and cultural challenges (Amoo & Adeyemi, 2010; Llord and Young, 2009; Schmied & Tully, 2009) especially in receiving and gaining access to the right information about sexuality. Their needs also include desire to be independence, starting employment, advancing cognitive abilities, negotiating and changing relationships including family and peers and broader social connections (Schmied, & Tully, 2009). In the Africa traditional setting, sex is not a subject of open discussion like other countries of countries of the world. Specifically, girls are seemingly prevented from discussing or confiding in their parents over sensitive matters especially the sexual issues which were tagged as taboos. They are restrained from making decision regarding sexuality coupled with the fact that most of them are not empowered socially or economically to refuse sex especially from the older male. However, at this period of transition from childhood into adulthood, they face innumerable challenges and most often desperate to be informed on a number of issues especially the reproductive health matters (Anderson, Berkowitz, Donnerstein, Huesmann, Johnson, Linz, Malamuth & Wartella, 2003). Wherever and whenever their quests are not satisfied, adolescents can resort into any available means to satisfy their quest and access the perceived needed information. For examples, they could learn from other siblings, friends, school mates, etc. In addition, it has been discovered that greatest influence can come from the media such as television, song lyrics, magazines, movies/videos, games and most recently from the internet, facebook, 'whatsapp', 'instagram' and skype, to mention but few (Coleman & Shane, 2011; L' Engle, Brown & Kenneavy, 2006; Loader & Mercea, 2012; Homero & Coddington, 2013).

Media influences on risk behaviour (including sexual behaviour) have been noticed from the time immemorial (Anderson, Berkowitz, Donnerstein, Huesmann, Johnson, Linz, Malamuth & Wartella, 2003; Rich, Gurman, Underwood & Keller, 2008). New and social media have added another dimension into adolescents particularly in terms of risky sexual behavior. Social Media is conjectured in this context as systems of social interactions using modern technologies for creation of content and collaboratively connection with online information. It provides opportunity for people or group to create, organize, edit, share, comment on content of interest with corresponding responses from other people or group (Federal Web Managers Council, 2013; Jan & Hermkens, 2011; Tang, Gu & Whinston, 2012; Kaplan & Haenlein,

2010). Its use cuts across both sexes, assumes to have no regional divide but common where there is internet facility. In other word, it could be viewed as interaction means among people who have access to social media technologies to create, share or exchange information and ideas in interactive platforms through virtual network environment. Succinctly put, the virtual network application is exclusively internet-based application that is built on the ideological and technological foundations of Web 2.0 (Wikipedia, 2013; Jan & Hermkens, 2011; Tang et al, 2012; Kaplan & Haenlein, 2010). Social media falls into several types. Few of them are social networks (e.g. facebook and LinkedIn), media sharing (e.g. YouTube, Instagram and Flickr), microblogging (such as Twitter), Wikis (Wikipedia) and Bookmarking sites (such as Delicious and Stumbleupon) that allow tagging of desired links for easy reach and share (Ahlqvist, Bäck, Halonen & Heinonen, 2008; Kaplan & Haenlein, 2010; Wikipedia, 2013).

Different operations and activities are performed with each category though there are overlaps in these functions. Notwithstanding, types and operations of social media differ distinctively from the traditional media in terms of the coverage, frequency, quality and response time. Among its other peculiar characteristics are that it is common among the literates and individuals who have flairs for modern techs of which adolescents or most young people are not exempted. While its importance as information transmitter could be indispensable to development, the fear is that much of the contents the adolescents are exposed like sexual imageries might not be benign to sustainable development (Anderson et al, 2003; Coleman & Shane, 2011; Loader & Mercea, 2012; L' Engle, Brown & Kenneavy, 2006). Besides, the emergence of social media has made it possible to use media in a variety of ways and invariable has turned to common companion of most adolescents nowadays. The rate at which the adolescents are immersing themselves in newer media gargets with social networking sites, microbloggings, media sharing, wikis, bookmarking sites and so on coupled with their consumption of various activities on social media are appalling and it is not undoubted that these will have far-reaching effects on their daily lives (Anderson *et al*, 2003; Collins, Martino & Shaw, 2011; Homero & Coddington, 2013).

The study adopted the observational-learning theory as featured frequently in psychological behavioural studies (Bandura & Adams, 1977; Bandura, 1977 and 1994). The theory suggests that viewers character and behaviour can be influenced by the character or behaviour observed. It indicated that there is tendency for viewer to exhibit the ideas or imitate the character or to acquire a variety of behavioural scripts and schemas (such as attitude, beliefs, and interpretational biases) on the basis of their exposure. It is no doubt that their exposure to sexual contents on media could influence reciprocate behaviour. This suffices to say that imageries of certain body parts or sexual acts are unconditional erotic stimuli for sexual arousal (Rich *et.al*, 2008). In another perspective, the preponderance of, and the privacy associated with social media technology, limits the extent to which the adolescents can be supervised or monitored by older adults or parents. Thus, most often, they are at liberty to watch, view, or use sexual sites notwithstanding the risk involved. This is also compounded by the absence of sexuality education at home or schools. Exposure to sexual contents could spur sexual behavior of adolescent especially in the risk of early sexual intercourse, sexual partnering or other risky sexual activities (Anderson *et al*, 2003).

Adolescent sexuality and its consequences had remained a major issue in most societies across many generations. Sexual risk behaviour places adolescents at risk of sexually transmitted diseases (STDs), unintended pregnancy and HIV/AIDS (among others) which brings a unique set of costs not only to the adolescents involved but also to the larger society (Allen, Seitz & Apfel, 2003; United States Centers for Disease Control and Prevention, 2013). Generally, there is a paucity of literature on social media especially in terms of its potential and plausible effects on the vulnerable people (Anderson *et al*, 2003; Homero & Coddington, 2013). However, the emerging discussions show that attention would be required on this development. Thus, it is exigent to examine the vulnerability of adolescents to sexual contents through social media and associates risks towards effective reduction in the incidence of HIV/AIDS in Nigeria as well as sub-Saharan region in general.

Research methods

The study adopted only quantitative research approach in the data gathering process. Structured face-to-face interviews were conducted among selected 305 adolescents. They were distributed using Nigerian age-sex ratio of 51 and 49 between male and female respectively. The sample size was guided by Israel Gleen (2009) and Taro Yamane (1967) sample size determination techniques. The two formulae produced a sample size of 384. Out of this, only 305 returned questionnaires were good for processing. The study locations consist of densely populated urban areas within Lagos metropolis, Nigeria. The choice of ~~the~~ locations was aided by the high proportion of adolescents in the areas as contained in the Nigerian Census figures (National Population Census, NPC, 2009 and 2010). One literate adolescent per house/building (within randomly selected streets) in the locations of study was interviewed. The data gathered were analysed using a combination of univariate and multivariate analyses. The univariate segment provided the descriptive information about the subjects and other variables of interest while the multivariate technique permitted the test of hypotheses. Only one model was formulated to draw inferences on various interconnections between and among dependents and independent variables. Specifically, the model tested the influence of socio-demographic characteristics of adolescents and vulnerability to sexual experience. The test was quantified using binary logistic regression of the form:

$$\text{Logit}(Y) = In\frac{\pi}{(1-\pi)} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \cdots \ldots\ldots\ldots\ldots + \beta_n X_n$$

Where π is the probability of sexual experience, α is the Y-intercepts, the β's are the logistic regression coefficients of the predictor variables and X's are the set of explanatory variables. Overall, the results of the analysis are presented in tables.

Results and discussion

The results of the analysis are presented in segments. The first segment contains the descriptive information about the demographic profile of the respondents while the second details the multivariate technique and the results of hypothesis tested. The respondents were distributed in the ratio of 40:60 between the age groups 10-14 and 15-19 years. The interviewed was conducted only among urban dwellers due to the nature of technology involved. About 74.7 (primary, 30.8 percent and secondary, 43.9 percent) had secondary education and below. The proportion who has never attended regular school was 10.5 percent. More than two-thirds of the adolescents interviewed were singles while only 21.7 percent had ever married. As expected and owing to the larger proportion that had not married, about 79.3 percent of them were at zero parity level. HIV/AIDS knowledge was amazingly high (64.9 percent) and the sources of information range from classroom teaching, non-formal sources such as parent, friends, social media techs and so on.

The result of the analysis shows that among the numerous social media types established in the literature, quite a number are not popular in the location of study. The most popular types of social media identified are: social networks (facebook and LinkedIn), media sharing (YouTube, Instagram and Flickr) and microblogging (Twitter). While there could be interwoven usage among these media, the study focused only on frequency of usage and the exact activities done on or with them. Respondents were not familiar with bookmarking, social news such as Delicious, StumbleUpon, Digg, podcasting and Reddit. Thus, they were excluded from the report. Specifically, vagaries of social media technologies discovered during the interview were axially coded into seven categories, namely: Facebook, Twitter and YouTube top the lead in the proportion of 30.5, 22.3 and 17.7 percent respectively as indicated in Table 1. Other types of social media used most often are Flickr (12.5%), Instagram (9.2%), LinkedIn (4.3%) and others (3.6%) as shown in Table 1. While it is not impossible for a single adolescent to involve in several of have multiple of these media, those captured were the one they use most often. Questions on the common activity performed with the media they have access to revealed that 22.3 percent uses the media to update themselves in terms of education, lesson/school assignments (Table 1). About 30.5 percent

indicated they chat, talk or discuss using the facilities, 16.1 percent engage it for trading, 9.2 percent employ it for Instagram (e.g. sending pictures) while 22.0 percent watches video or play music with them (Table 1).

Table 1: Demographic characteristics of adolescents and their access to social media

Age Group	**No**	**%**	**Access to Social Media**	**No**	**%**
10-14 years	122	40.0	Yes	305	100.0
15-19 years	183	60.0	**Social Media use most often**		
Total	**305**	**100.0**	Facebook	68	22.3
			Twitter	93	30.5
Marital Status			Flickr	38	12.5
Never married (Singles)	239	78.4	Instagram	28	9.2
Ever married	56	18.4	YouTube	54	17.7
Others	10	3.3	LinkedIn	13	4.3
Total	305	100.0	Others	11	3.6
Educational attainment			**Total**	**305**	**100.0**
No Schooling	32	10.5	**Common activities done on SM***		
Primary Education	94	30.8	Update my self	68	22.3
Secondary education	134	43.9	Chatting, etc	93	30.5
Post Secondary Education	45	14.8	Trading on line	49	16.1
Total	**305**	**100.0**	Sending pictures	28	9.2
Age bracket of Child			Watching video/music, etc	67	22.0
Zero parity	242	79.3	**Total**	**305**	**100.0**
1-2 years	56	18.4	**Privacy enjoyed on Media**		
3-4 years	7	2.3	Sexting	68	22.3
Total	305	100.0	Greeting/Talking	80	26.2
CEB			Business/Trading	38	12.5
Zero parity	242	79.3	Learning/Classworks/etc	28	9.2
1-2 years	58	19.0	Chatting	54	17.7
3-4 years	5	1.7	Texting	22	7.2
Total	**305**	**100.0**	Others	15	4.9
Knowledge of HIV/AIDS			**Total**	**305**	**100.0**
Yes	210	68.9	**Ever had sexual intercourse**		
No	95	31.1	Yes	199	65.2
Total	305	100.0	No	106	34.8
Sources of HIV/AIDS awareness			Total	305	100.0
Formal Education	68	22.3	Use Condom	111	36.4
Informal Education	142	46.6	No Condom	88	28.9
No Knowledge of HIV/AIDS	95	31.1	No Response/ NA*	106	34.8
Total	**305**	**100.0**	**Total**	**305**	**100.0**
Source: Field Survey 2013			***NA = Not Applicable** ***SM = Social Media**		

Since majority claimed social media offer them some level of privacy, they were probed further on specific privacy they enjoy using the media. Findings show that the major priorities in the activities performed on social are: greeting/talking to friends (26.2%), sexting (22.3%), chatting (17.7%), trading or business (12.5%) and texting (3.6%) as shown in Table 1. Virtually all respondents spend inordinate amount of time consuming social media however, the timing vary from one adolescent to another subject

to availability of electricity in some cases or possibility of securing privacy. Substantial proportion of adolescents browses at night while other prefers daytime for social media activity. Further analysis shows that 199 (65.2 percent) of adolescents interviewed have experienced sexual intercourse. Out of this proportion, 111 (28.9 percent) indicated no condom or any form of protection was used during the last sexual intercourse as revealed in Table 1. Only 36.4 percent (representing 88 adolescents) confirmed they used condom or other forms of protection in the last sexual exercise (Table 1). This revelation depicts the degree of exposure of the target population to risk sexual behaviour and propensity to sexual transmitted infections.

Binary logistic regression illustrating the interconnection between socio-demographic characteristics of adolescents and vulnerability to sexual experience

The second segment of result features the inferential binary logistic statistics on the interconnection among selected variables. The dependent variable is the experience of sexual intercourse measured in binary codes (and hereinafter refers to as exposure to sexual activity). Demographic variables as well as types and usage of social media were used as independent variables. All variables were transformed into binary codes to satisfy the condition for binary logistic regression. The result shows that lower age and common usage of social media are positive related to exposure to sexual activity. Adolescents between age 10 and 14 years are 4.614 times more likely to be exposed to sexual experience compared to those in age 15-19 years (i.e. reference category) as shown in Table 2. The finding is statistically significant at P-value = 0.000 (Table 2). All lower educational levels (i.e. primary and informal education) are positively related to exposure to sexual activity. Adolescents with primary education and no schooling are 26.953 and 3.258 times more likely to be involved in sexual activity (P-value = 0.000 and 0.119 respectively). Respondents with secondary education are 0.784 times less likely to be involved in sexual activity compared to adolescent with tertiary education as indicated in Table 2.

It is also observed that those who have never married are more likely to be exposed to sexual activity compared to the married. However, the finding is not statistically significant. Table 2 also revealed that the use of social media by the adolescents is positively associated with exposure to sexual activity though with the exception of Flickr and LinkedIn. Those that use social medial like Twitter, Facebook, YouTube and Instagram are 6.932, 4.630, 3.566 and 2.682 times more likely to be exposed to sexual activity (Table 2) more than their counterparts that use other media. However, only the use of facebook demonstrated a statistically significant correlation with exposure to sexual activity at P-value < 5% (Table 2). Similar patterns were observed when evaluated the activities they enjoy most on social media. All forms of activities identified indicated Beta positive value implying positive association with exposure to sexual activity. However, adolescents who indulge in activities such as Instagram, chatting, texting and sexting are 7.013, 6.369, 3.864 and 3.493 times more like to be exposed to sexual activity compared to those who use other form of social media (Table 2).

The model summary provided useful statistics on the accuracy of the model tested. The overall percentage (84.3%) indicated that the model formulated accurately predicted the probably of exposure of adolescents who use social media regularly to sexual activity. This implies that deficiency of this estimate is only limited to 15.7%. Also, as indicated in Table 2, the Cox & Snell R Square (0.386) and Nagelkerke R Square (0.532) shows that 39-53% of variations in exposure to sexual activity among the target population can be explained by the use of social media.

Table 2: Binary logistic regression illustrating Relationship between socio-demographic characteristics of adolescents and vulnerability to sexual experience

Selected Variables	B	S.E.	Wald	Sig.	Exp(B)
Age Group					
15-19 years	**RC**				
10-14 years	1.529	0.406	14.216	0.000	4.614
Education Attainment					
Tertiary Education	**RC**				
No Schooling	1.181	0.757	2.435	0.119	3.258
Primary Education	3.294	0.633	27.087	0.000	26.953
Secondary Education	-0.244	0.583	0.175	0.676	0.784
Marital Status					
Ever married	**RC**				
Never Married	0.388	0.333	1.363	0.243	1.475
Social Media use often					
Others	**RC**				
Flickr	-0.690	0.844	0.668	0.414	0.502
Facebook	1.533	0.832	3.392	0.036	4.630
YouTube	1.271	0.922	1.901	0.168	3.566
Instagram	0.987	0.886	1.241	0.265	2.682
LinkedIn	-0.205	0.850	0.058	0.809	0.815
Twitter	1.936	1.273	2.311	0.128	6.932
Common activities done with SM*					
Others usage	**RC**				
Sexting	1.251	0.874	2.050	0.152	3.493
Greeting /Talking	0.349	0.856	0.166	0.684	1.417
Business/Trading	0.659	0.889	0.550	0.458	1.933
Texting	1.352	0.897	2.273	0.132	3.864
Chatting	1.852	0.860	4.632	0.031	6.369
Learning/Classworks	0.060	1.139	0.003	0.958	1.062
Instagram	1.948	0.983	3.929	0.047	7.013
Constant	-1.603	1.834	0.764	0.382	0.201
Overall Percentage = 84.3	Cox & Snell R Square = 0.386			Nagelkerke R Square = 0.532	

Source: Field Survey 2013 RC = Reference Category, SM = Social Media

Conclusion and Recommendations

The coverage and use of social media points to plausible break in information gap especially among the population studied and also capable of re-energising revolution against the silence or sacrosanct on sexuality in the traditional African setting. While social media could serve as knowledge source for adolescents, the observed common activities they perform on or with the media they have access to signals that abuse of social media usage is inevitable. Common activities such as sexting and sending of pictures among inexperienced young folk and in a sexual risky environment like Nigeria, portends danger and could jeopardise the sustainable development agenda of not only the country but also other developing countries with larger younger population. While it is possible for investment in social media to yield high returns due to teeming population of the current and future users, it is exigent that sexuality education be popularised among adolescents in order to curb the misuse of social media or sexual materials that may be available on the media. However, in a world where adolescents are more technologically connected within societies that possess growing proclivity towards sex and sexuality, it is inimical not to monitor adolescents' exposure nor censor the sexual contents available on social media. This has serious policy implications for youth development and the provision of healthy media. Therefore, where thorough censoring is not possible, parental-guidance interventions are suggested as effective panacea against misuse of social media among the adolescents.

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