Influence of the Use of Social Media and Exposure to Pornography on the Sexual Behavior of Youths in Selected Tertiary Institutions in Southwest Nigeria

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Abstract

Exposure to pornography is fraught with health and social implications. In Nigeria, there is a dearth of information on how youths have been exposed to pornography on social media (SM) and the effects of this on their sexual behaviors (SB). This study described the pattern of SM use, exposure to pornography, and the effects of this exposure on SB of young persons in southwest Nigeria. Two hundred students were randomly selected from two tertiary institutions. Data were collected using a pre-tested questionnaire that explored the respondents' SM usage pattern, exposure to pornography, and SB. Data were analyzed using descriptive statistics, Chi-square, and logistic regression. The mean age of respondents was 21.4±2.7. The SM in which most of the respondents had accounts were WhatsApp (96.7%) and Facebook (95.3%). Major sexual-related activities undertaken on SM included watching/downloading naked pictures (7.0%) and sex videos (13.5%). A majority (92.5%) of the respondents have been inadvertently exposed to pornography, and the major sources of this exposure were SM (59.3%) and web-based Internet pages (61.5%). While only 68.0% have been intentionally exposed, the major sources of exposure were SM (42.3%) and web-based Internet pages (53.3%). About half (48.5%) have experienced sexual intercourse, out of which 17.5% reported having multiple sexual partners. Recent inadvertent (OR: 4.5, 95%CI: 1.25-16.4) and intentional (OR: 2.3, 95% CI: 1.2-4.8) exposure to pornography were significantly associated with the experience of sexual intercourse. Likewise, recent intentional pornography exposure was significantly associated with having multiple sexual partners (OR: 3.0, 95%CI: 1.1-8.6). SM use with exposure to pornography had notable effects on SB of young persons. Effective interventions should be conducted to reduce this exposure and its associated effects among the target population.

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Introduction

The use of social media (SM) has gained considerable popularity during the last decade, attracting millions of users worldwide. The most used social networks are Facebook, YouTube and WhatsApp, in that order (Statista, 2019), with WhatsApp being the most popular mobile messaging application (Statista, 2020). SM is now part of the rapid worldwide digital development reshaping the lives of many young people (Pfeiffer et al., 2014). In Nigeria, a majority of the youth in tertiary institutions use SM. For example, one study reported that 97% and 85% of undergraduate students use WhatsApp and Facebook, respectively (Tayo et al., 2019). SM sites have several features which make them popular with young people. Facebook and Instagram, for example, allow users to create personal profiles, upload photographs and videos, and post messages that connect them with other users (Moreau, 2019; Pempek et al., 2009). Young people derive several benefits from the use of SM sites including receiving and sharing

information and ideas, friendship, education, and being connected with family and other loved ones (Adil, 2018). Yet, the use of SM sites is fraught with many challenges such as the risk of depression, time wastage, cyberbullying and harassment, hacking, fraud and scams, addiction, and exposure to sexually explicit materials (SEM) (Adil, 2018).

SEM, also called pornography, are materials that show genitals and sexual activities in unconcealed ways (Peter & Valkenburg, 2007), and which are primarily meant to sexually arouse the audience (Malamuth and Impett, 2001). Observing a model in SEM can make the viewer get involved in behavior they learned through observation. Hence, according to social cognitive theory, "when people observe a model performing a behavior and the consequences of that behavior, they remember the sequence of events and use this information to guide subsequent behaviors" (Bandura, 2001). Therefore, whether one is being rewarded or punished for one's behavior and the outcome of the behavior, the observer may choose to replicate the behavior modeled. Whether intentionally or in-advertently, exposure to explicit materials is of concern because of the associated potential negative consequences involved in this practice, including emotional disturbance (Flood, 2009) and change in sexual behavior (SB) (Arulogun et al., 2016). Other consequences include increased likelihood of accepting and engaging in sexually permissive behaviors (Lo & Wei, 2005), earlier initiation of SB (Ashby et al., 2006), negative perception, and increased likelihood that young people, regardless of gender, would view women as mere sex objects (Peter & Valkenburg, 2009; Rideout, 2001). Exposure to SEM may also lead to addiction

which is characterized by compulsive, repeated use of SEM until it causes serious negative consequences to one's physical, mental, social, and/or financial well-being (Parashar et al., 2007), and associated with masturbation addiction (Carvalheira et al., 2015). Furthermore, it has been reported to intensify attitudes supportive of sexual coercion among males and associated with higher levels of reported sexual victimization among females (Flood, 2009; Olaleye & Ajuwon, 2012; Simons et al., 2012; Ybarra et al., 2014).

Nevertheless, some researchers have identified some benefits of SEM including the fact that it can serve as a source of sexual knowledge for young persons (Rothman et al., 2015), and that exposure to SEM may reduce sexual anxiety and dysfunction, relieve stress (Igyuve and Agbeke, 2015), and encourage sexual expression and satisfaction (Watson & Smith, 2012).

The bulk of published available literatures on exposure to SEM and its potential influence on SB are from high-income countries. There are few similar studies from low- and middle-income countries. In Nigeria, for example, earlier studies on exposure to SEM have focused on children and high school students (Arulogun et al., 2016; Longe et al., 2007). A related study by Tayo et al., (2019) focused on SM usage and its influence on undergraduate students, but did not explore how SM has affected the sexual behavior of the participants. Also, another study among students of tertiary institutions explored the correlation between exposure to SEM and HIV risk behavior (Mayungbo et al., 2017). In this article, we present the findings from research designed to determine the current usage pattern of SM platforms, exposure to SEM through SM, and their influence on SB among students from two selected tertiary institutions in Nigeria.

Methods

Study Design and Area

The study is a part of a larger quasi-experimental project designed to test the efficacy of an educational intervention delivered through SM targeting students in two tertiary institutions, namely The Polytechnic, Ibadan, and Yaba College of Technology, Lagos State, both of which are in two metropolises in southwestern Nigeria. The two schools provide full-time and part-time courses and run mainly ordinary National Diploma (ND) and Higher National Diploma (HND) programs, each of which has a duration of two years.

Yaba College of Technology is located in Yaba, a suburb on Lagos Mainland, in Lagos State. As of 2018 when the study was conducted, the institution has 9 schools (faculties) with a student population of approximately 20,000. The Polytechnic, Ibadan, has 5 faculties (schools) with about 12,000 students. The two schools provide instruction and training in applied science, engineering, environmental science, arts, commerce, management, and technology. They also provide training in other fields of applied learning relevant to the needs of the development of Nigeria in the areas of industrial and agricultural production and distribution, and research in the development and adaptation of techniques.

Measures

Data collection was conducted using a developed semi-structured 21-item questionnaire, which had four sections: demographic characteristics, the pattern of use of SM, exposure to SEM, and SB.

The sociodemographic section explored the respondents' sex, age, religion, ethnic group, marital status, level of study, and type of family. The exact age of the respondents was collected and later divided into four groups during analysis.

On the pattern of use of SM, the participants were asked to indicate the SM platform they use, the frequency of its use (whether being used every day or otherwise), and the type of activities they engaged in on the media. For the types of activities, a list of eight activities (such as read news, watch/download sex videos/films, download/listen to music, watch/download naked pictures) were listed for the participants to indicate if they engage in any of them. They were also provided space to write other activities they engage in that were not on the list.

In the section on the pattern of exposure to SEM, respondents were asked to indicate if they have been intentionally and inadvertently exposed to SEM and the media through which such exposure occurred. For inadvertent exposure, participants were specifically asked if they have accidentally encountered nude picture(s) or video(s) of people having sex while for intentional, they were asked if they have intentionally watched the video(s) of people having sex or nude pictures. Specifically they were asked, *"Have you encountered nude picture(s) or video(s) of people having sex accidentally (when you don't want to)?"* This was followed by either 'yes' or 'no' responses. They were also asked to indicate if they were recently exposed to SEM. "Recent exposure" was defined as exposure to SEM during the one month preceding the study. Respondents were also asked to indicate the SB they had participated in as a result of the exposure. Those who reported that they have been exposed to SEM were specifically asked to indicate whether the exposure has affected their SB.

Concerning SB, respondents were asked if they have experienced sexual intercourse and the number of recent sexual partners. "Recent number of sexual partners" was defined as

the number of sexual partners during the three months preceding the study. Participants were asked to indicate from a list of sexual behaviors (for example group sex, anal sex, oral sex, forceful sex, sex without a condom) they engaged in due to their exposure to SEM. In addition, the respondents were asked to indicate their perceived confidence in practicing sexual abstinence; options provided to this question were 'very confident', 'a little confident', or 'not confident'. Sexual abstinence was defined as, *"the ability to stay for a period of a year without having sexual intercourse."*

Prior to data collection, the draft of the questionnaire was pretested among students in a similar institution in southwestern Nigeria to ensure its clarity and comprehension, and the outcome was used to modify the questions. Other steps taken to ensure the validity of the instrument include a review of relevant literature on the use of SM by young persons and review of the questionnaire by some experts who have experience related to the research.

Ethical Considerations

The University of Ibadan/University College Hospital Ibadan, Nigeria Ethics Review Committee approved the study prior to its commencement. Permission was obtained from the administrators of each of the institutions where the study was conducted. Written informed consent was obtained from the participants before their enrolment in the study and each of the participants kept a copy of their signed informed consent form for their records. Prior to completion of the questionnaire, participants were informed that participation in the study was voluntary and were assured of confidentiality, privacy and, anonymity of information provided. There was no name or other identifiers on the questionnaire to ensure confidentiality.

Sample Size and Sampling Technique

The sample size of the study was derived from the findings on the prevalence of exposure to SEM among youths in southwestern Nigeria (Arulogun et al., 2016). The sample of the current study consisted of 200 participants from the two institutions, and participants were selected using a multi-stage random sampling technique. First, faculties/schools in the institution were segregated into two; science and non-science-based categories. One faculty/school was randomly selected from each of the categories using the lottery method. Second, out of the faculties/schools, one department was randomly selected using the lottery method. Third, from each of the departments, about 25 participants were randomly selected among students of Ordinary National Diploma (ND) and Higher National Diploma (HND) programs.

Questionnaire Administration

Three trained research assistants administered the questionnaire (a male and two females) under the supervision of the first author. The questionnaire was self-completed, and data were collected during lecture-free periods or until all lectures had been completed for the day. The questionnaires were retrieved immediately from the students after completion and were checked to ensure they were properly completed. There were 101 completed questionnaires from Polytechnic Ibadan and 99 from Yaba College of Technology. Therefore, a total of 200 students (66% males and 34% females) from the two institutions completed the questionnaire. All students who were contacted/selected agreed to participate in the research.

Data Management and Analysis

The questionnaires were sorted and cleaned. Open-ended questions were coded, and the information was entered into a computer. Statistical Package for the Social Sciences (SPSS) software (version 20.0) was used to facilitate data analysis. Descriptive statistics such as mean and percentages were used to analyze univariate data. Analyses of bivariate data included a test of associations between categorical variables using Chi-square analysis at a significance level of 0.05 and logistic regression at 95% confidence interval (CI).

Chi-square analysis was conducted to determine factors associated with exposure to SEM (for both intentional and inadvertent exposure), the relationship between exposure to SEM and experience of sexual intercourse and multiple sexual partnerships. Logistic regression was performed to determine the level at which exposure to SEM predicts experience of sexual intercourse and multiple sexual partnerships.

Results

Sociodemographic Variables

The profile of the study participants is shown in Table 1. The mean age of the respondents was 21.4 ± 2.7 and most (66.0%) of the respondents were males. About 80% practiced Christianity and a majority (82.0%) were from the Yoruba ethnic group. A majority (78.5%) of the respondents came from a monogamous family background.

Use of Social Media

The SM platforms/applications on which most of the respondents had a registered account were WhatsApp (96.7%) and Facebook (95.3%), while the mobile application with the highest frequency of use (everyday) was WhatsApp (77.4%) (Figure 1). The least used SM platforms were "In My Opinion" [IMO] (17.5%), and Telegram (11.6%).

On the pattern of use of SM, reading of news/recent happenings (81.0%) topped the list, followed by downloading/listening to music (66.5%). Major sexual-related activities reportedly undertaken on SM included watching/downloading naked pictures (7.0%) and watching/downloading sex videos (13.5%). Other uses included sharing naked pictures (1.0%), "sex" videos (1.0%), and "to find boyfriend/girlfriend" (13.5%).

Exposure to SEM

A majority (92.5%) of the respondents had been exposed to SEM from any of the sources. The life-time prevalence of intentional and inadvertent exposure to SEM among the participants was 68.0% and 92.5%, respectively. Recent exposure to SEM was 51.4% including inadvertent (42.9%) and intentional (43.8%) exposure among ever-exposed respondents. More males (96.5%) than females (81.4%) have ever been inadvertently exposed to SEM ($p < 0.05$). Likewise, for recent exposure, more males (49.2%) than females (28.1%) were significantly exposed (Table 2). A similar pattern was observed for lifetime intentional exposure to SEM (males 75.9%; females 49.2%) ($p < 0.05$). However, there was no significant difference between the sexes with respect to recent intentional exposure (Table 2). The only variable that was significantly associated with recent inadvertent exposure to SEM was sex, whereas for intentional exposure, the associated variable was the level of study, with higher exposure among ND students (53.2%), compared with the HND group (36.5%) (Table 2).

Major sources of inadvertent exposure were the Internet (61.5%) and SM (59.2%). Other sources of inadvertent exposure were YouTube (29.9%) and television (27.7%). For intentional exposure, major sources were Internet (53.3%), SM (42.3%), YouTube (36.5%), and file sharing (collected through) mobile applications (37.5%). Other sources were television (21.9%) and being received via the WhatsApp social medium.

Table 1

Sociodemographic Profile of Students from Two Tertiary Institutions in Nigeria

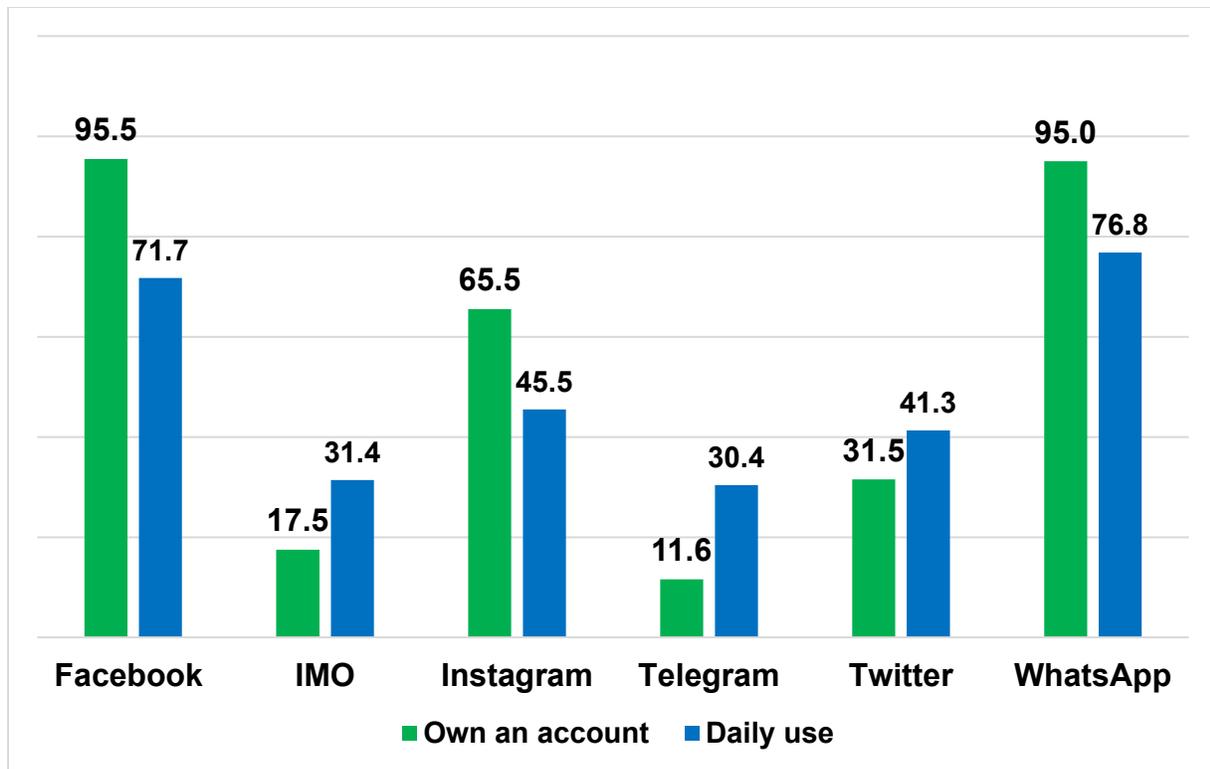| Variable	Frequency	Percentage
Sex		
Male	132	66.0
Female	68	34.0
Age Group		
16 – 19	55	27.6
20 – 24	116	58.3
25 – 29	28	14.1
Religion		
Christian	159	79.5
Islam	40	20.0
Traditional	1	0.5
Ethnic Group		
Yoruba	164	82.0
Hausa	1	0.5
Igbo	23	11.5
Others	12	6.0
Marital Status		
Single (never married)	197	98.5
Married	3	1.5
Level of Study		
ND 1	98	49.0
HND 1	102	51.5
Family Origin		
Monogamy	157	78.5
Polygamy	43	21.5

Figure 1. Students' ownership of SM accounts and daily usage pattern *Figures are in percentage, IMO: "In My Opinion"

Relationship between Exposure to SEM and Sexual Behavior

Ninety-seven (48.5%) respondents reported that they have ever experienced sexual intercourse, with the mean age of sexual debut at 19.4±3.5. On the perceived effects of exposure to SEM, about a quarter (26.5%) agreed that exposure to SEM has affected their SB, 62.5% disagreed, while 11.0% were not sure. For sexual abstinence, 63.8% indicated they were very confident of practicing sexual abstinence, while 36.2% were less or not confident of this.

More of those who reported they had ever been inadvertently exposed to SEM have significantly experienced sexual intercourse compared with those who were not exposed (51.1% vs 18.1%) ($p < 0.05$). However, this relationship was not significant for recent inadvertent exposure (Table 3). For inten-

tional exposure to SEM, more of those who had been exposed have significantly experienced sexual intercourse compared with the unexposed (61.0% vs 21.9%). Likewise, recent intentional exposure to SEM was significantly associated with the experience of sexual intercourse (Table 3).

Out of the 184 of those who had ever been either inadvertently or intentionally exposed to SEM, 150 participants (81.5%) responded to the question of whether they had ever performed any sexual act(s) viewed in the sexually explicit content. Out of these, half (50.0%) indicated they had engaged in some sexual act(s) following their exposure to SEM, which include oral sex (34.7%), forceful sex (4.0%), anal sex (8.0%), and sex without a condom (46.7%) (Figure 2).

Concerning the relationship between exposure to SEM and reported number of sexual partners, those (40.5%) who reported

recent intentional exposure to SEM had significantly more than one sexual partner during the three months preceding the study, compared with those who were not recently exposed to SEM (18.4%) (Table 4). Also, more (21.5%) of those who reported intentional exposure to SEM were significantly less confident to practice sexual abstinence, compared with those who were not intentionally exposed to SEM (6.5%) ($p < 0.05$).

Those who have ever been inadvertently or intentionally exposed to SEM were about 4 and 5 (95%CI) times more likely to have experienced sexual intercourse, respectively, than the unexposed. Also, those who were recently (intentionally) exposed to SEM were two times (95%CI) more likely to have experienced sexual intercourse than those who were not intentionally exposed during the same period. Respondents who had recent intentional exposure to SEM were three times (95%CI) more likely to have more than one sexual partner during the three months preceding the study than those who were not intentionally exposed during this period (Table 5).

Table 2

Recent Exposure to SEM by Sex, Level of Study, and Age

| Type of Exposure | Variable | Recent Exposure to SEM | | Total N (%) | *p*-value | $\varkappa^2$ |
		Yes *n* (%)	No *n* (%)			
Inadvertent exposure	**Sex**					
	Male	63 (49.2)	69 (50.8)	132 (69.8)	0.01*	6.3
	Female	16 (28.1)	41 (71.9)	57 (30.2)		
	Level of Study					
	ND	45 (49.5)	46 (50.5)	91 (49.2)	0.07	3.3
	HND	34 (36.2)	60 (63.8)	94 (50.8)		
	Age group					
	16 – 19	23 (45.1)	28 (54.9)	51 (27.7)	0.5	1.4
	20 – 24	48 (44.4)	60 (55.6)	108 (58.7)		
	25 – 29	8 (32.0)	17 (68.0)	25 (13.6)		
Intentional exposure	**Sex**					
	Male	48 (47.5)	53 (52.5)	101 (74.3)	0.17	1.8
	Female	12 (34.3)	23 (65.7)	35 (25.7)		
	Level of Study					
	ND	40 (56.3)	31 (43.7)	71 (52.2)	0.003*	8.9
	HND	20 (30.8)	45 (69.2)	65 (47.8)		
	Age group					
	16 – 19	19 (54.3)	16 (45.7)	35 (25.9)		
	20 – 24	34 (41.5)	48 (58.5)	82 (60.7)	0.3	2.5
	25 – 29	6 (33.3)	12 (66.7)	18 (13.3)		

Note. * Significant

Table 3

Exposure to SEM and Experience of Sexual Intercourse

| Exposure to SEM		Ever Experienced Sexual Intercourse		Total N (%)	*p*-value	χ^2
		Yes n (%)	No n (%)			
Inadvertent exposure	**Ever**					
	Yes	94 (50.8)	91 (49.2)	185 (92.5)	0.02*	5.3
	No	3 (20.0)	12 (80.8)	15 (7.5)		
	Total	**97 (48.5)**	**103 (51.5)**	**200 (100.0)**		
	Recent exposure					
	Yes	44 (55.7)	35 (44.3)	79 (42.9)	0.3	1.2
	No	50 (47.6)	55 (52.4)	105 (57.1)		
	Total	**94 (50.8)**	**91 (49.2)**	**185 (100.0)**		
Intentional exposure	**Ever**					
	Yes	83 (61.0)	53 (39.0)	136 (68.0)	0.00*	26.7
	No	14 (21.9)	50 (78.1)	64 (32.0)		
	Total	**97 (48.5)**	**103 (51.5)**	**200 (100.0)**		
	Recent exposure					
	Yes	43 (71.7)	17 (28.3)	60 (43.8)	0.02*	5.5
	No	40 (51.9)	37 (48.1)	77 (56.2)		
	Total	**83 (60.6)**	**54 (39.4)**	**137 (100.0)**		

Note. * Significant
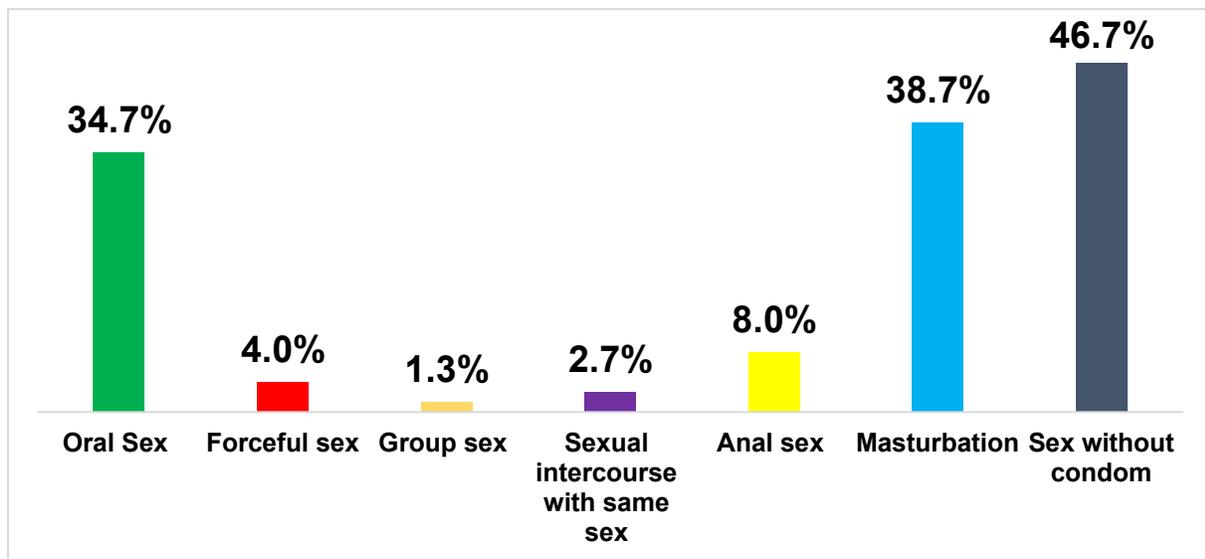
Figure 2. Reported SB behavior following exposure to SEM. *Note.* Multiple responses are included.

Table 4

Participants' Exposure to SEM and Recent (3 Months Preceding the Survey) Number of Sexual Partners

Exposure to SEM		Recent Number of Sexual Partners		Total	*p*-value	$\varkappa^2$
		≤ 1 *n* (%)	> 1 *n* (%)			
	Ever					
	Yes	61 (72.6)	23 (27.4)	84 (97.7)	0.5	0.5
	No	1 (50.0)	1 (50.0)	2 (2.3)		
Inadvertent exposure	Total	62 (72.1)	24 (27.9)	86 (100)		
	Recent exposure					
	Yes					
	No	26 (63.4)	15 (36.6)	41 (48.8)	0.06	3.4
	Total	35 (81.4)	8 (18.6)	43 (51.2)		
		61 (72.6)	23 (27.1)	84 (100)		
	Ever					
	Yes	53 (70.7)	22 (29.3)	75 (87.2)		
	No	9 (81.5)	2 (18.2)	11 (12.8)	0.4	0.6
Intentional exposure	Total	62 (72.1)	24 (27.9)	86 (100)		
	Recent exposure					
	Yes					
	No	22 (59.5)	15 (40.5)	37 (49.3)	0.03*	4.4
	Total	31 (81.6)	7 (18.4)	38 (50.7)		
		53 (70.7)	22 (29.3)	75 (100)		

Note. * Significant

Discussion

Findings from the current research support previous findings that WhatsApp and Facebook are the most used SM applications in Nigeria (Buhari et al., 2014; Eke et al., 2014; Olaleye, 2017) and the current world-leading mobile instant message application (Statistica, 2020), respectively. Our study confirms that SM has both advantages and disadvantages as reported by Adil (2018). In our study, it was evident that SM was a source of information and entertainment, including reading news and listening to music, respectively. Also, it was reported as a source of exposure to SEM. Hence, a major challenge of using SM uncovered in this study is the exposure to SEM; some of the respondents reported the use of SM to watch or download sexually explicit content. Some also used it to search for sexual partners. All of these behaviors could possibly have effects on the SB of young persons.

The fact that virtually all the respondents have been exposed to SEM is a cause of concern. The reason for this could be because of the explorative behavior of youth in using the SM sites and searching through the Internet in general (Pew Research Center, 2016). Respondents reported both intentional and inadvertent exposures, although more people were inadvertently exposed. This can

be attributed to greater access and frequent use of technology including smartphones, faster Internet connections, and computer storage capacities, as well as the more aggressive marketing strategies of SEM merchants (Mitchell et al., 2007) targeting young persons. SM was a major source of both intentional and inadvertent exposure in the current study. This informs the high rate at which young people could be exposed to SEM while using SM. This situation underscores the need for intervention to ensure the safe use of SM among youths since they are the major users of these media (Pew Research Center, 2016). Our study further showed that more males than females were significantly exposed, both intentionally and inadvertently, to SEM. This confirms the reports from previous authors (Flood 2009; Mattebo 2014; Mitchell et al., 2003; Stanley et al., 2016;), in which more males than females were significantly reported to have been exposed to sexually explicit content. This gender difference, according to Mattebo (2014), may be explained by the fact that boys generally have more positive attitudes toward SEM than girls. Exposure to sexually explicit content has been reported to have a range of notable and often troubling effects on the viewers (Ashby et al., 2006; Brown & L'Engle, 2009; Collins et al., 2004; Flood, 2007; Rideout, 2001).

Table 5

Exposure to SEM as Predictors of Experience of Sexual Intercourse and Multiple Sexual Partnerships

Exposure to SEM		Odd Ratio (OR)	(95% CI)	*p*-value
		Ever experienced sexual intercourse		
Inadvertent exposure	**Ever**			
	Yes	4.5	(1.25 – 16.4)	0.02*
	No[+]	1		
	Ever			
	Yes	5.5	(2.8 – 11.1)	0.00*
	No[+]	1		
Intentional exposure	**Recent exposure**			0.02*
	Yes	2.3	(1.14 – 4.79)	
	No[+]	1		
		Had more than one sexual partner in the previous 3 months		
	Recent exposure			
	Yes	3.0	(1.06 – 8.63)	0.04*
	No[+]	1		

Note. * Significant, [+] reference category

Findings from the current study support this affirmation. First, some of the respondents perceived that exposure to sexually explicit content has (definitely) affected their SB. There was a significant association between intentional exposure to sexually explicit content and less perceived confidence in practicing sexual abstinence. To buttress this finding, more of those who have been intentionally exposed to sexually explicit content were sexually experienced. This suggests that intentional exposure to sexually explicit content may reduce the practice of sexual abstinence; the safest and best preventive method for sexually transmitted infections including HIV. Second, exposure to sexually explicit content was associated with multiple sexual partnerships. Sex with multiple partners elevates the risk of contracting sexually transmitted diseases and other negative health outcomes, including chronic pelvic pain and infertility (Shelton et al., 2004). Lastly, exposure to sexually explicit content, whether intentional or inadvertent, affects SB, and was found to be a predictor of risky sexual practices.

Other reported unhealthy behaviors following exposure to SEM by the participants were forceful sex, group sex, and sex without a condom. Also of concern is masturbation, which potentially can have negative effects on personal life, including low self-esteem and anti-social behaviors, irritation of the genitals, and low productivity (Messina, 2021). Our findings also provide evidence to support the fact that youths are likely to practice or experiment with what they view in sexually explicit videos (Arolugun et al., 2016).

In conclusion, a majority of the participants have been exposed to sexually explicit content both intentionally and inadvertently; a major source of which was SM. The exposure has negative effects on their SB. This therefore calls for effective interventions to reduce exposure to sexually explicit content and its associated effects among in-school youths in southwest Nigeria.

Implications for Health Behavior Theory

The practice of sexual acts viewed in the SEM could be explained using the social cognitive theory (Bandura, 2001, p. 6), which states that "when people observe a model performing a behavior and the consequences of that behavior, they remember the sequence of events and use this information to guide subsequent behaviors." This therefore suggests that SEM, when watched, could shape one's attitude, hence such risky behavior could be modeled and practiced. To this end, it could be inferred that exposure to SEM has negative effects on young people's attitudes and behavior.

This study has laid a foundation for developing appropriate interventions to address the issue of exposure to SEM among students of tertiary institutions and young persons in general. Programs addressing exposure to sexually explicit content should take into consideration personal (knowledge and attitudes), environmental (access to the Internet), and behavioral factors that favor exposure to SEM. We therefore proposed the following interventions.

Since youths are the major users of SM, these platforms can be used by the school authorities and development organizations to reach youths with packaged intervention messages for prevention of exposure to SEM in form of "digital social behavior change communications." To buttress this, research has shown that SM is an effective way of providing support and education to students in Nigeria (Ajuwon et al., 2018; Pimmer et al., 2019). The counseling units in the institutions can collaborate with officers of the student union organizations to develop and disseminate messages on the potential

risks associated with exposure to SEM. Students also belong to many groups on WhatsApp and this is a potentially appropriate medium to disseminate such messages.

Limitations of the Study

We acknowledge three limitations of this research. First, the study was conducted in only two tertiary institutions; hence findings may not be generalized to all students of tertiary institutions in southwest Nigeria let alone the entire country. However, this study can serve as a pilot and can be used to conduct large-scale research on the relationship between exposure to SEM and SB among young persons. Second, the survey relies on self-reported sexual behavior; it is possible that respondents' reported behavior was affected by gender and cultural norms, in which males exaggerate and females under-report their sexual activities. Nevertheless, the fact that the questionnaire was self-completed and anonymous suggests that this may not be the case with the study participants. Third, exposure to SEM was measured during one month preceding the study and this was compared with the number of sexual partners that respondents had during a three-month period preceding the study. We therefore acknowledge this inconsistency as the intention of this study was just to measure the current exposure to SEM.

Discussion Questions

Our findings have shown that young persons are exposed to SEM on SM and the Internet. Also, the same SM is now part of the rapid worldwide digital development reshaping the lives of many young people, hence youths spent much of their time on it. How can we then use this same SM to reach the youths with preventive messages to reduce exposure to SEM? Also, which of the SM platforms will be appropriate to be used for such intervention?

Acknowledgments

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