



Original Article

Sexting and other risky sexual behaviour among female students in a Nigerian academic institution



Aboluwaji D. Ayinmoro, PhD^a, Endurance Uzobo, PhD^{b,*}, Bodisere J. Teibowei, PhD^c and Joyce B. Fred, B.Sc^b

^a Department of Sociology, University of Ibadan, Oyo State, Nigeria

^b Department of Sociology, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria

^c Department of Arts Education, Federal University Otuoke, Bayelsa State, Nigeria

Received 18 November 2019; revised 28 February 2020; accepted 29 February 2020; Available online 23 March 2020

المخلص

أهداف البحث: أدت الزيادة في استخدام وسائل التواصل الاجتماعي إلى ارتفاع معدل انتشار الرسائل الجنسية، مما أدى بدوره إلى سلوكيات جنسية محفوفة بالمخاطر. تهدف هذه الدراسة إلى دراسة دور الرسائل الجنسية في السلوكيات الجنسية المحفوفة بالمخاطر بين الطالبات اللاتي يستخدمن الهواتف الذكية لتلبية احتياجاتهن الاجتماعية والتعليمية.

طرق البحث: تمت الدراسة المستعرضة لـ 200 طالبة جامعية في جامعة دلتا النيجر باستخدام استبانة منظمة تم اختبارها مسبقا والتحقق من صحتها. تم تحليل بيانات الدراسة باستخدام اختبارات وصفية لوصف الخصائص الاجتماعية والديموغرافية والاتجاهات في السلوك الجنسي عبر الرسائل الجنسية والسلوكيات المحفوفة بالمخاطر. بالإضافة إلى ذلك، استخدمت إحصاءات استنتاجية (الانحدار اللوجستي) في اختبار الارتباط بين المتغيرات المستقلة وغير المستقلة.

النتائج: أشارت نتائج الدراسة إلى أن إرسال صورة عارية إلى الشريك واستخدام هواتف الأندرويد وجدت أنها مرتبطة بشكل كبير بالسلوكيات الجنسية المحفوفة بالمخاطر لدى الطالبات. علاوة على ذلك، ارتبط العمر، والمجموعة العرقية، والمصروف الشهري بالسلوكيات الجنسية المحفوفة بالمخاطر.

الاستنتاجات: أظهرت هذه الدراسة ارتفاع خطر السلوكيات الجنسية عن طريق استخدام الرسائل الجنسية. نوصي بخطط علاجية من قبل المؤسسات الأكاديمية لتعزيز القيم الأخلاقية أثناء استخدام الهواتف الذكية.

الكلمات المفتاحية: الرسائل النصية؛ السلوك الجنسي المحفوف بالمخاطر؛ الطالبات؛ الهواتف الذكية؛ الوسائط الاجتماعية

Abstract

Objectives: The increase in the use of social media has led to a concurrent rise in the prevalence of sexting, which has, in turn, resulted in risky sexual behaviour. This study aims to investigate the role of sexting in risky sexual behaviour among female students who own smartphones for social and educational purposes.

Methods: A cross-sectional study was conducted on 200 undergraduate students of the Niger Delta University using a pre-tested and validated structured questionnaire. Data for the study were analysed using descriptive statistics to describe the socio-demographic characteristics and trends in sexting and risky sexual behaviour. In addition, inferential statistics (logistic regression) was used in testing the association between the dependent and independent variables. IBM SPSS version 21.0 was used for data analysis.

Results: The results from the study indicated that those who had ever-sent nude pictures to their partners (OR = 2.504, $p < 0.05$) and the use of android phones were found to be significantly related to risky sexual behaviour of students (OR = 16.139, $p < 0.05$). Moreover, age (OR = 83.962, $p < 0.01$), ethnic group (OR = 130.612, $p < 0.05$), and monthly allowances (OR = 83.962, $p < 0.05$) were also associated with risky sexual behaviour.

Conclusion: This study confirmed the string influence of sexting on high-risk sexual behaviour caused by sexting. In light of this, academic institutions are advised to discourage the licentious use of smartphones.

* Corresponding address: Department of Sociology, Faculty of Social Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria.

E-mail: enduzobo@gmail.com (E. Uzobo)

Peer review under responsibility of Taibah University.



Keywords: Female students; Risky sexual behaviour; Sexting; Smartphones; Social media

© 2020 The Authors.

Production and hosting by Elsevier Ltd on behalf of Taibah University. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Sexting is gradually becoming a problem for parents, educators, researchers, and society as a whole. With the advancements in communication technology, the lives of adolescents, including their sexuality, have become increasingly intertwined with digital devices. Nowadays, adolescents are not only passively exposed to sexualised media, but may also actively engage in electronically mediated sexual communication in the form of sexting. Ševčíková, Blinka, and Daneback¹ assert that the youth tend to be very creative and use media to their advantage by downloading violent videos and sending suggestive text messages to their friends. Therefore, with increasing ubiquity of smartphones and access to the Internet, the prevalence of sexting is escalating to a devastating level, especially in the developing countries that are relatively new to the use of social media. Different studies indicate that the prevalence of sexting varies across countries.^{2,3} In particular, an online survey found that among the European countries, Sweden and the Czech Republic have the highest percentage of sexual messages sent or posted (12% and 10%, respectively). On the other hand, the prevalence rates in most European countries range from 1% to 4%, with the European mean being 3%.⁴

Moreover, Lee, Crofts, Salter, Milivojevic, and McGovern⁵ did a study on sexting among young people (i.e. their perceptions and practices) and found that sexting was prevalent among 13 to 15-year-olds who are particularly likely to receive sexual images. However, the study Rice, Rhoades, Winetrobe, Sanchez, Montoya, Plant, and Kordic⁶ conducted in Southern California revealed that sexting often leads to early sexual debut, which is correlated with higher rates of sexually transmitted infections and teen pregnancies. Finally, Ybarra and Mitchell⁷ New Hampshire study concluded that sexting might be linked to sexual risk behaviour.

Sexting involves sending and posting sexually suggestive messages through the use of electronic devices.³ Klettke, Halford, and Mellor² define sexting as the transmission of nude (or semi-nude) images via an electronic device. Furthermore, they added that sexting refers to the act or acts of sending, receiving, or forwarding sexually explicit messages or images from an individual's cell phone or computer to another.² Sexting may cover various types of behaviour such as sending one's erotic pictures to romantic partners via the internet being the recipient of such. Currently, only a few studies have examined how these sexualised interactions in romantic relationships affect adolescent sexual behaviour.

According to previous studies, sexting is associated with other health risk behaviour and environmental and personal factors such as pornography, substance use, bullying, and suicide.^{8–10} Furthermore, studies have also revealed that young people who sext are more likely to indulge in high-risk sexual urges¹⁰ and seek the fulfilment of their sexual desires shortly after exchanging sexual messages with their partners.^{8,9}

There has been a suggestion that young people who engage in online sexual behaviour (which may include sexting) were more likely to have problematic family backgrounds.¹⁰ This was corroborated by Benotsch *et al.* who stated that adolescents who live with both parents were less likely to be involved in sexting.¹¹ Young people who are involved in sexting have been reported to develop new risky sexual behaviour.¹¹ Personality is a strong predictor of behaviour^{12,13} and personality traits that have been associated with sexting include extraversion, neuroticism, and others.¹⁴ In addition, external stressors such as academic and social demands are also common at this stage of development.

Nevertheless, the few studies that have looked into this phenomenon show that sexting might be associated with other factors, including health risky behaviour.¹⁵ Sexting could have a severely negative effect on young people because they may not be able to handle complex emotional issues, which may sometimes accompany sexting.¹¹

As previously stated, studies on sexting and sexual behaviour was primarily concentrated on both genders. For instance, Marume, Maradzika, and January¹⁶ studied adolescent sexting and risky sexual behaviour in Zimbabwe and found that condom use was significantly higher among girls who sext.

Based on the studies that postulated that sexting could be more prevalent among females, this study explored some of the factors associated with sexting among female students and the latter's association with risky sexual behaviour. The case study sample consisted of female students from the Niger Delta University in Nigeria.

Materials and Methods

Study area

The study was conducted in the Niger Delta University, located in the Wilberforce Island of Bayelsa State, Nigeria, from September to October 2019. The university is made up of three campuses: Gloryland Campus (main campus), College of Health Sciences, and the temporary campus of the Faculty of Law in Yenagoa. It also has its own teaching hospital in the suburban area of Okolobiri known as the Niger Delta University Teaching Hospital (NDUTH). It has 12 faculties and offers bachelor's, master's, and doctoral degrees.

Study design and population

The study has a cross-sectional quantitative design; it seeks to explore sexting and risky sexual behaviour among smartphone-using female students. The population of the

study comprised of female students who use smartphones. However, the inclusion criteria strictly required female students who possess smartphones, they could readily use for sending or receiving pictures and videos online.

Data collection/study instruments

The data collection instrument came in the form of a pre-tested and validated structured questionnaire designed by the researcher based on the revised pilot study and recommendations from experts in measurements and evaluation. The questionnaire was divided into three main parts: Section A, which focused on the socio-demographic characteristics of the respondents (e.g. age, religion, academic level, ethnic group, income, and mode of residence); Section B, which focused on sexting behaviour and included questions such as: Have you ever received or sent a nude or semi-nude picture or video before? (Chronbach's alpha coefficient of $\alpha = 0.89$); and Section C focused on risky sexual behaviour with questions such as: Have you ever had sex, sex without a condom, sex when drunk, etc.? (Chronbach's alpha coefficient of $\alpha = 0.89$).

Sample size estimation and sampling technique

The sample size for this study was determined using Cochran's formula. The estimated sample size required for the study was calculated as follows:

$$n = \frac{Z^2 1 - \alpha / 2 P (1 - P)}{d^2}$$

where n = Required Sample size; $Z^2_{1-\alpha/2}$ = the value of standard normal variables at 95% confidence interval = 1.96; P = Expected prevalence or proportion of undergraduate students who sext = 80% (0.05); d = marginal error at 5% (standard value of 0.05). The total estimated sample size required for the study was 200 respondents. This study mainly adopted the simple random sampling technique to recruit female students who owned a smartphone that they could access online information with. In cases where female students had no access to the internet, the next respondents with internet access were selected until the required sample size was reached.

Data analysis

Data collected for this study were manually checked for errors before inputting them into the IBM SPSS software for analysis. The variables in the study were then described through frequencies and percentages, bar charts, and logistic regression. The logistic regression model was used to assess the strength of association between the dependent and independent variables. In all analyses, the base for rejection was set at a p-value of 0.05.

Dependent variable

The dependent variable for this study is risky sexual behaviour. The risky sexual behaviour comprised the following: having had sex, sex without a condom, sex while

intoxicated, sex with someone you've known for less than two days, cheating on your partner, taking pills for sex, and having sex during menstruation. These items were coded (yes = 1 and no = 0) and re-grouped to form a dichotomous variable of low risky sexual behaviour (0–3 = 0) and high risky behaviour (4–7 = 1).

Independent variables

The independent variables revolved around sexting behaviour with items like: knowledge of sexting, liking for sexting, having received/sent a sexually explicit text message to a friend, last time of sexting, having sent nude picture to partner, having a partner who enjoys sexting, using smartphones to encourage sexting, and being forced by partner to sext. The variables also included socio-demographic characteristics such as age, ethnicity, religion, academic level, income, and mode of residence.

Results

Socio-demographic characteristics of the respondents

Table 1 shows the socio-demographic characteristics of the respondents, which include their age, religion, ethnic groups, academic level, income/allowances, and mode of residence. As illustrated in the table, majority of the respondents (50.5%) were between the ages of 23–30 years old and were Christian (99.0%). Additionally, more than half of the respondents were from the Ijaw/Epie ethnic group (55.5%). In terms of academic level, majority of the respondents were first-year students (20%) (see Tables 2 and 3).

Table 1: Socio-demographic characteristics of the respondents.

Demographic variables	Frequency (n = 200)	Percentage (%)
Age		
Less than 18 years old	46	23.0
18–22 years old	53	26.5
23–30 years old	101	50.5
Religion		
Christian	198	99.0
Muslim	2	1.0
Ethnic group		
Ijaw/Epie	111	55.5
Urhobo	45	22.5
Igbo	37	18.5
Hausa	2	1.0
Yoruba	5	2.5
Academic Level		
100 L	44	22.0
200 L	40	20.0
300 L	41	20.5
400 L	33	16.5
500 L	42	21.0
Income/monthly allowance (N)		
5,000 – 10,999	80	40.0
11,000 – 16,999	75	37.5
17,000 – 20,000	45	22.5
Mode of residence at school		
Off-campus	119	59.5
On-campus	81	40.5

Table 2: Distribution of respondents by sexting behaviour.

Sexting behaviour variables	Yes (%)	No (%)
Knowledge of sexting	152 (76.0)	48 (24.0)
Received a sext	94 (47.0)	106 (53.0)
Enjoys sexting	89 (44.5)	111 (55.5)
Sent a nude picture	73 (36.5)	127 (63.5)
Partner enjoys receiving nude pictures	76 (38.0)	124 (62.0)
Uses smartphones to encourage sexting	144 (72.0)	56 (28.0)
Forced by partner to sext	30 (15.0)	170 (85.0)

Most of the respondents (40.0%) had a very low monthly income, which ranged between 5,000 to 10,999; and more than half of the respondents (59.5%), resided outside the school campus.

Sexting behaviour among respondents

This study examined the respondents' sexual behaviour through exploring their knowledge of sexting, receipt of sext

messages, feelings about sexting, frequency of sending nude pictures, partner's willingness to send nude pictures, use of smartphones to encourage sexting, and being forced by their partner to sexting. When the respondents were asked whether they knew about sexting, majority of them (76.0%) indicated that they did and almost half of them (47.0%) indicated that they have received a sext. Most of the respondents (72%) indicated that they have used their smartphones to encourage sexting.

Sexting and risky sexual behaviour

In order to determine the predictive influence of sexting on risky sexual behaviour among the respondents, binary logistic regression was used in Model 1 and 2, respectively. In Model 1, only the respondents who had ever sent nude pictures to their partner were associated with risky sexual behaviour (OR = 2.504, $p < 0.05$) at a statistically significant level. Therefore, those who send nude pictures to their partners are 2.5 times more likely to engage in high-risk sexual behaviour.

Table 3: Association between sexting, socio-demographic characteristics, and risky sexual behaviour among respondents using binary logistic regression.

Predictor variables	Low risky behaviour (%)	High risky sexual behaviour (%)	Model 1	Model 2
			OR [95% CI]	OR [95% CI]
Knowledge of sexting	73 (48.0)	79 (52.0)	1.636 [.790–3.389]	3.069 [.529–17.820]
Enjoyment of sexting	49 (55.1)	40 (44.9)	0.639 [.333–1.224]	0.745 [.130 - .443]
Ever received/sent a sext to a friend	49 (52.1)	45 (47.9)	0.706 [.368–1.355]	0.076 [.013 - .443]
Last time of sexting	36 (52.9)	32 (47.1)	0.539 [2.56–1.135]	1.389 [.272–7.095]
Ever sent a nude picture to her partner	29 (39.7)	44 (60.3)	2.504* [1.102–5.690]	2.957 [.513–17.036]
Partner enjoys sexting	32 (42.1)	44 (57.9)	1.702 [.776–3.733]	2.006 [.312–12.891]
Use of smartphones to encourage sexting	63 (43.8)	81 (56.2)	2.068 [.956–4.474]	16.139* [2.374–109.696]
Forced by partner to sext	22 (73.3)	8 (26.7)	0.300 [.118 - .768]	2.469 [.251–24.290]
Socio-demographic variables				
Age				
Less than 18 years old (Ref)	35 (76.1)	11 (23.9)		1.000
18–22 years old	10 (18.9)	43 (81.1)		83.962** [7.046–1000.537]
23–30 years old	54 (53.5)	47 (46.5)		10.656 [1.275–82.542]
Religion				
Christian (Ref)	99 (50.0)	99 (50.0)		–
Muslim	–	2 (100.0)		–
Ethnic group				
Yoruba (Ref)	2 (40.0)	3 (60.0)		1.000
Urhobo	2 (4.4)	43 (95.6)		130.612* [1.090–15657.333]
Igbo	6 (16.2)	31 (83.8)		10.953 [.138–870.740]
Hausa	–	2 (100.0)		–
Ijaw/Epie	89 (80.2)	22 (19.8)		0.186 [.003–13.089]
Academic level				
100 Level (Ref)	16 (36.4)	28 (63.6)		1.000
200 Level	27 (67.5)	13 (32.5)		0.293 [.018–4.812]
300 Level	17 (41.5)	24 (58.5)		1.338 [.096–18.578]
400 Level	15 (45.5)	18 (54.5)		8.299 [.552–124.726]
500 Level	24 (57.1)	18 (42.9)		2.554 [.143–45.545]
Income/monthly allowance (N)				
5,000 – 10,999	23 (28.8)	57 (71.2)		1.000
11,000 – 16,999	54 (72.0)	21 (28.0)		0.017* [.002 - .139]
17,000 – 20,000	22 (48.9)	23 (51.1)		0.072* [.007 - .722]
Mode of residence at school				
Off-campus (Ref)	66 (55.5)	53 (44.5)		1.000
On-campus	33 (40.7)	48 (59.3)		3.604 [.552–23.520]

Significant at $P < 0.01^{**}$ or $P < 0.05^{*}$; Ref = reference category.

Among the predictor variables in Model 2, the ‘use of smartphones to encourage sexting’ was found to have the most statistically significant association with risky sexual behaviour (OR = 16.139, $p < 0.05$).

Among the socio-demographic characteristics of the respondents, age was found to have the most statistically significant association with risky sexual behaviour. In particular, those in the age range of 18–22 years old are 84 times more likely to engage in high-risk sexual behaviour than those who are less than 18 years old. Among the ethnic groups, those who were from the Urhobo ethnic group are 130.6 times more likely to engage in risky sexual behaviour than those from Yoruba.

The respondents’ monthly allowance was also found to have a statistically significant association with risky sexual behaviour. In particular, those who earned 11,000 – 16,000 and 17,000 – 20,000 are 1.7 and 7.2 times less likely to engage in high-risk sexual behaviour compared to those who earned 5,000 – 10,000, respectively.

Discussion

The discussion of this study’s findings was done in line with existing literature. Findings on the respondents’ sexual behaviour confirm that majority of them have used smartphones to send nude pictures and this could influence their sexual behaviour to a large extent. It corroborates the works of Lenhart⁸ and Ybarra and Mitchel⁸ define sexting as the exchange of sexually suggestive pictures or messages, including nude or semi-nude photographs through mobile phones to the opposite sex as well as sharing sexual photos via online text messaging.

Marume et al.¹⁶ argued that sexting was correlated with both safe and risky sexual practices. This study found a similar trend of risky sexual behaviour among respondents who engaged in sexting, namely those who engaged in sexting were more likely to engage in early sexual activity without protection than those who do not. This suggests that sexting can influence or promote sex among students to a large extent; further confirming the belief of Marume et al.¹⁶ that sexting is linked to sexual behaviour. Moreover, it supports the latter’s stance regarding the significant correlation between sexting and risky sexual practices among adolescents in Zimbabwe, which was recommended to be indicated in reproductive health programmes to result in higher impact intervention.

Among the factors that affect sexting and risky sexual behaviour, this study found that those who engaged in sexting did so primarily because the use of smartphones did not only affect sexting, but was also greatly influenced by friends and relatives, which, in turn, encouraged sexting—and consequently, risky sexual behaviour—among students.

This study indicated that sexting significantly influences sexual behaviour; thus, sending sexts to their romantic partners positively predicted subsequent high-risk sexual behaviour among the respondents. This assertion has also been previously confirmed by two cross-sectional studies, which provided more insight into the possible causal links

between sexting and high-risk offline sexual behaviour.^{17,18} Another study by Temple and Choi,¹⁹ further corroborates this by stating that actively sending sexts may activate sexual behaviour among adolescents. However, this study found that of all the predictor variables, only ‘sending nude pictures to one’s partner’ and ‘use of smartphones to sext’ were significantly related to high-risk sexual behaviour.

Furthermore, just as this study found certain socio-demographic data that were significantly correlated to high-risk sexual behaviour, previous studies have also noted this position. In particular, Ševčíková, Blinka, and Daneback¹ and Rice et al.¹⁸ arrived at the same conclusion that age and sensation-seeking behaviour were found to have effects on the intercept of offline sexual behaviour. In other words, older adolescents and high prevention-seekers were more likely to be sexually experienced at baseline. Also, Rice et al.¹⁸ found the race of the smartphone user (e.g. black/African American) to be significantly associated with high-risk sexual behaviour, a position that is also held by this study.

Additionally, the findings from this study slightly differ from other studies with respect to the prevalence of sexting behaviour. This study found the prevalence of sexting as indicated by the various measures of sexting behaviour to be high, whereas other studies put the prevalence of sexting between 2.5% and 27.6%.^{19,20} In particular, Ybarra and Mitchell’s⁷ study puts the prevalence rate of sexting at just 7% while another study in Nigeria had similar prevalence rate of sexting with this study at 33.2%.²¹

Limitations

To the best of the researchers’ knowledge, a study investigating sexting and risky sexual behaviour among female smartphone users has not yet been carried out, especially in Nigeria. However, the limitation of this study is based on its cross-sectional design, which restricts the level of inferences that can be made. Furthermore, since the study concentrated on just one institution in Nigeria, its generalisability is limited to the said study locale. Finally, the research’s questionnaire-based format allows for the possibility of response bias given the nature of the study.

Conclusion

Based on the study, it is evident that sexting is significantly associated with risky sexual behaviour among female university students in Nigeria. As such, there is need for all stakeholders in the university system to promote moral values and standards that will regulate the students’ and the youth’s use of smartphones while still upholding the moral values of society. Hence, it is suggested that programmes that promote moral values when using smartphones should be organised by university authorities across the country, especially among university students. This can be done in collaboration with the National Orientation Agency (NOA) and other higher-educational institutions in Nigeria.

Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest

There is no conflict of interest.

Ethical approval

All of the research procedures performed in this study adhere to the ethical standards of the Niger Delta University, which is also in line with the national code of conducting research in Nigeria. The research process is also in accordance with the Helsinki 1964 declaration and its later amendments or other comparable ethical standards.

Authors contributions

EU and JBF conceptualised and designed the study. ADA, EU, and BJT drafted the questionnaire. EU, BJT, and JBF ensured face validity and administered the questionnaires to the respondents. EU and ADA analysed and interpreted the data. ADA, EU, JBF, and BJT wrote the manuscript. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

References

- Ševčíková A, Blinka L, Daneback K. Sexting as a predictor of sexual behavior in a sample of Czech adolescents. *Eur J Dev Psychol* 2018; 15(4): 426–437.
- Klettke B, Hallford DJ, Mellor DJ. Sexting prevalence and correlates: a systematic literature review. *Clin Psychol Rev* 2014; 34: 44–53.
- Livingstone S, Görzig A. When adolescents receive sexual messages on the internet: explaining experiences of risk and harm. *Comput Hum Behav* 2014; 33: 8–15.
- Livingstone S, Haddon L, Görzig A, Ólafsson K. *Risks and safety on the internet: the UK report*. London: LSE, EU Kids Online; 2011.
- Lee M, Crofts T, Salte M, Milivojevic S, McGovern A. “Let’s get sexting”: risk, power, sex and criminalisation in the moral domain. *Int J Crime Justice Soc Democr* 2013; 2(1): 35–49.
- Rice E, Gibbs J, Winetrobe H, Rhoades H, Plant A, Montoya J, et al. Sexting and sexual behavior among middle school students. *Pediatrics* 2014; 134(1): e21–e28. <https://doi.org/10.1542/peds.2013-2991>.
- Ybarra ML, Mitchell KJ. “Sexting” and its relation to sexual activity and sexual risk behavior in a national survey of adolescents. *J Adolesc Health* 2018; 55(6): 757–764.
- Lenhart A. *Teens and sexting*. Washington, DC: Pew Internet & American Life Project; 2009. Retrieved from, http://www.pewinternet.org/files/old-media//Files/Reports/2009/PIP_Teens_and_Sexting.pdf.
- Gordon-Messer D, Bauermeister JA, Grodzinski A, Zimmerman M. Sexting among young adults. *J Adolesc Health* 2013; 52(3): 301–306.
- Jonsson LS, Bladh M, Priebe G, Svedin CG. Online sexual behaviours among Swedish youth: associations to background factors, behaviours and abuse. *Eur Child Adolesc Psychiatr* 2015; 24(10): 1245–1260.
- Benotsch E, Snipes D, Martin A, Bull S. Sexting, substance use, and sexual risk behavior in young adults. *J Adolesc Health* 2013; 52: 307–313.
- Chamorro-Premuzic T, Furnham A. Personality traits and academic examination performance. *Eur J Pers* 2003; 17(3): 237–250.
- Barrick M, Mount M, Judge T. Personality and performance at the beginning of the new Millennium: what do we know and where do we go next? *Int J Sel Assess* 2001; 9(1– 2): 9–30.
- Delevi R, Weisskirch RS. Personality factors as predictors of sexting. *Comput Hum Behav* 2013; 29(6): 2589–2594.
- Mitchell KJ, Finkelhor D, Jones LM, Wolak J. Prevalence and characteristics of youth sexting: a national study. *Pediatrics* 2012; 129: 13–20.
- Marume A, Maradzika J, January J. Adolescent sexting and risky sexual behaviours in Zimbabwe: a cross-sectional study. *Sex Cult* 2018; 22(3): 931–941. 2018.
- Dake JA, Price JH, Maziarz L, Ward B. Prevalence and correlates of sexting behavior in adolescents. *Am J Sex Educ* 2012; 7: 1–15.
- Rice E, Rhoades H, Winetrobe H, Sanchez M, Montoya J, Plant A, Kordic T. Sexually explicit cell phone messaging associated with sexual risk among adolescents. *Pediatrics* 2012; 130: 667–673.
- Temple JR, Choi H. Longitudinal association between teen sexting and sexual behavior. *Pediatrics* 2014; 134: e1287–e1292.
- Lippman JR, Campbell SW. Damned if you do, Damn if you Don’t...if you are a girl: relational and Normative Contexts of adolescent sexting in the United States. *J Child Media* 2014; 8: 371–386. 2014.
- Olatunde O, Balogun F. Sexting: prevalence, predictors, and associated sexual risk behaviors among postsecondary school young people in ibadan, Nigeria. *Front Pub Health* 2017; 5: 1–8.

How to cite this article: Ayinmoro AD, Uzobo E, Teibo-wei BJ, Fred JB. Sexting and other risky sexual behaviour among female students in a Nigerian academic institution. *J Taibah Univ Med Sc* 2020;15(2):116–121.