



PEER REJECTION AND SOCIAL NETWORKING AS PREDICTORS OF CYBER BULLYING AMONG ADOLESCENT SECONDARY SCHOOL STUDENTS IN OTUKPO LOCAL GOVERNMENT AREA OF BENUE STATE

Social Sciences Research

Nnamdi Azikiwe University, Awka Nigeria

Juliet Ifeoma NWUFO¹, Fortune Igiri EDE², Morenike Esther OMONIYI³ & Aniekan Smart UBOM⁴

^{1,2,3,4}Department of Psychology, University of Nigeria, Nsukka.

ABSTRACT

Abstract

Cyber bullying is a common social problem in schools and a public health concern threatening all age groups but students in particular. It is a relatively new phenomenon and has not been extensively researched in some context including Nigeria. Most of the existing studies have focused on the prevalence of it, thereby obscuring the complexity and the danger of it. The main goal of the present study was to examine the relationship between peer rejection and social networking on cyber bullying. The study adopted a cross-sectional survey research design, and simple random sampling technique was used to select 340 secondary school students aged 13 to 19 ($M=14.15$, $SD=1.49$) from six randomly selected secondary schools in Otukpo Local Government Area of Benue State. Three instruments were used: Rejection Sensitivity Scale (RSS); Social Networking Scale (SNS); and Cyber bullying Scale (CBS). Data were analyzed using Hierarchical Multiple Regression. The measures of association between the variables identified in the study revealed that there was not significant relationship between peer rejection and cyber bullying which implies that the severity of rejection depends on one's perception. Social networking significantly predicted cyber bullying which reveals that higher social networking is associated with greater experiences of cyber bullying. Therefore, it is recommended that individualized interventions for children affected by cyber bullying, either as victims or as bullies, need to be developed to resolve conflict and mitigate negative consequences that may result. Employing a whole system approach is

appropriate as it provides a framework of action that can be drawn on when incidents are reported and further creates a systematic intervention that involves the cooperation of all relevant role players and raises the awareness about the importance placed on addressing this issue.

Key Words: Cyber bullying, Intervention. Peer group. Rejection sensitivity, Social networking,

Introduction

The influx of Information and Communication Technologies has changed the way people live especially adolescents that can easily be attracted to these technologies due to their immaturity (Sharma, Sahu, Kasa, & Sharma, 2014). Thus, adolescents are trapped by these technologies at a stage when their social and emotional development predispose them to peer pressures and when they have a limited capacity to self-regulate (Hamm, Newton, Chisnolm, Shulhan, Milne & Sundar, 2015SS). A good number of adolescents in the world today have access to at least one form of electronic media technology, such as computers and mobile phones for internet access. Although this increased connectivity has some social benefits for the virtual relationships of adolescents, it is also subject to abuse with dire consequences (Odora & Matoti, 2015). One of the consequences is cyber bullying, a situation whereby adolescents bully one another via electronic devices; and is currently being observed among students across the world including Nigeria (Ayas & Horzum, 2010; Adams & Amodu, 2015). It is a newly emerging phenomenon and a public health concern threatening all age groups but adolescent students in particular (Aboujaoude, Savage, Starcevic, & Salame , 2015).

Cyber bullying is defined as any behaviour performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others (Tokunaga, 2009). In line with this, Wilard (2014) defined cyber bullying as a way of being cruel to others by sending or posting harmful materials or engaging in other forms of social aggression using the internet or digital technologies. In addition, Sharif and Gouin (2005), sees this type of bullying as a type of psychological bullying by means of such electronic devices as mobile phones, blogs, websites and chat rooms. Thus cyber bullying is any bullying done through the use of technology. From the definitions, it shows that the act (cyber bullying) is deliberate and the intent is to make another person feel angry, sad, or scared. These violent behaviours can be carried out by means of a cell phone, electronic mail, internet chats, and online spaces such as MySpace, Face book and personal blogs (Casas, Del-Rey, & Ortega-Ruiz, 2013). Most of the time the victims do not always report this kind of bullying because of the fear that their care givers or parents will restrict their time on the internet or cell phones when they discover the kind of internet contents they access and stop them from using it at all; or for fear of punishment by the bully; or fear of embarrassment about being perceived as weak , including fear of being dismissed from school and fear of losing friendship due to low evaluation; belief that dealing with the issue would take too much time and that even when the problem is being reported nothing could be done (Kowalski & Limber, 2007).

Cyber bullying is just an extension of traditional bullying in schools (Berger & Caravita, 2016); though with its own identifiable characteristics which include: the possible anonymity of the bully, the larger potential audience for the abuse being carried out, the difficulty of disconnecting oneself from the cyber environment and the absence of the direct face to face contact which is present in many types of traditional bullying (Espelage & Hong, 2017). The review of pertinent literature shows that cyber bullying is a common problem in schools (Cetin, Yaman & Peker, 2011). Thus the research findings on the prevalence of cyber bullying differ from one study to another; and the reason may be because of the different ways that the behaviour is defined probably because it is a relatively new concept and the definitions are still evolving (Ada, Okoli, Obeten & Akeke, 2016). In the opinion of Quintana-Orts and Rey (2017), though cyber bullying is a global problem, but studies that have addressed this phenomenon shows differences in its prevalence, ranging from as high as 72% (Juvonen et al. 2008) to as low as 6.5% (Ybara & Mitchel, 2004). Information from a recent systematic review shows that vast majority of research reported that between 10 and 40% of secondary school adolescents in Northern America experienced cyber bullying (Kowalski, Giumetti, Schroeder & Lattanner, 2014). Not only that the prevalence rate is very high, but also the rate of perpetration differs among male and female (Tokunaga, 2010). Researchers have claimed that females engage in cyber bullying more than males because cyber bullying is considered as a relational type of bullying which is mostly done by girls (Keith & Martin, 2005). This may be as a result of culture and gender roles expectations.

For instance, in Nigeria, girls are not expected to have an open confrontation with people, and are brought up under close supervision, and are taught to be more self-conscious and more empathic; unlike boys who behave in an aggressive manner to gain popularity among their peers. Therefore, one can easily suggest that the supremacy of masculinity in Nigerian culture may require more overt aggression in order to attain greater social acceptance and higher self-esteem among young males than being involved in a relational type of bullying (Olumide, Adams & Amodu, 2015). Tokunaga (2010) opined that gender differences in cyber bullying are more complex and fraught with inconsistent findings (p.280); and challenged the claim that girls are more likely to engage in cyber bullying. For instance, examples can be found of boys being more involved than girls (e.g. Fanti, Demetriou, & Hawa, 2012; Samivalli & Poyhonen, 2012; Livingstone, Hadon, Gorzig, & Olfasson, 2011; Olumide, Adams & Amodu, 2016); while Michelle and Wright (2013) found no gender differences in cyber bullying among adolescents.

Smith (2012) and Tokunaga (2010) suggest that adolescence is a peak period for involvement in cyber bullying. Compared to traditional bullying, girls may be relatively more involved, but gender differences remain inconsistent across studies, probably due to different samples, methodologies (definitions, and type of cyber bullying assessed), and historical changes such as increased use of social networking in girls (Patchin & Hinduja, 2011). One critical question to be asked at this point is on what makes some adolescents to engage in cyber bullying than others? Some factors have been implicated in cyber bullying such as age, gender, duration of time spent online, proficiency of ICT

use and family characteristics (Olumide, Adams & Amodu, 2015). In the present study peer rejection is one of the variables to be considered. Peer rejection is defined as the shunning of one member by other members of the group (Townsend, McCracken, & Wilton, 1988). It describes the lack of recognition and reception that adolescents receive from peers. In the words of Frude (1993) a rejected child is one who serves the group's scapegoat (the object of active bullying, abuse and ostracism) and is hated by his or her peers. Scholars (e.g. Newcomb, Bukowski & Pattee, 1993; Parkhurst & Asher, 1993) reported that these individuals may be rejected because they are immature, socially unskilled/awkward, timid, and withdrawn or may lack positive social traits, such as kindness and honesty. When adolescents experience rejection by their peers, they may repeatedly experience the negative attitude of others over a long period of time (Nesdale & Duff, 2011); and will maintain their status within the peer group as they move into late childhood and adolescence (Brendgen, Vitaro, Doyle, Markiewicz & Bukowiski, 2003). Umukoro and Adegoke (2015) opined that peer rejection has increasingly been recognized as a major social problem.

For instance, (Rigby, 2011; Solberg & Olewus, 2003) studies reported that up to 1 in 10 adolescents have been the target of some form of rejection during the school year. In addition, approximately 10% of adolescents have been identified as chronic or severe victims of peer rejection (Houlston & Smith, 2010). Victims of rejection have been found to be at an elevated risk for a wide-array of psychosocial and behavioral adjustment problems. For example, consequences that have been associated with peer rejection have included depression, loneliness, physical health problems, social withdrawal, alcohol and/or drug use, school absence and avoidance, decrease in school performance, self-harm, and suicidal ideation (Leadbeater & Hogg, 2009, Ferrara, Ianniello, Villani & Corsello, 2018). The effects can be serious; but how individuals interpret these experiences and further cope with them depends on diverse intra and interpersonal factors (Jacobs & Harper, 2013). This means that some people see it as a stepping stone; while some others look at rejection as permanent and life-impairing. In other words, experiencing rejection and interpretation of the experience of rejection depends on the individual's perception. Each year some young people commit suicide as a result of cyber harassment (Bauman, Toomey, & Walker, 2013).

Researchers (e.g. Solberg et al., 2003; Rigby, 2011; Hinduja & Patchin, 2009; Sanders 2009) noted that peer rejection triggers cyber bullying due to the victim's desire to revenge which may lead him or her to utilize poor coping strategies, such as cyber bullying. The relationship between peer rejection and cyber bullying can be explained based on Patchin and Hinduja (2011) idea of general strain theory which sees peer rejection as a source of strain which produces feelings of anger and frustration, making rejected adolescents more at risk for aggressive behaviours (Michelle et al., 2013). This theory (general strain theory) suggest that the type of strain experienced by these adolescents make them feel angry and frustrated, resulting in the desire to take action in order to alleviate negative emotions (Michelle et.al, 2013). In this study, it is proposed that cyber bullying may be motivated by the victims' desire to seek revenge. The same opinion is seen in the works of Smith, Mahdavi, Carvalho, Fisher, Russell & Tippett,

2008; Grigg, 2010). Adolescents being the most vulnerable group that are trapped by modern technologies, desire, acquire and access these electronic technologies and make it part of their daily lives not minding the negative consequences; and so based on that one believes that technologies such as computers, cell phones and games consoles, and may remove some of the concerns that the victims have with taking their anger and frustration out on someone else in the face-to-face context (Hinduja et.al, 2009).

According to Ferrara et al., (2018), these technologies may provide victims with a quick and easy way to seek retribution. Cyber bullying is a new area of research that is still evolving, and previous researchers focused mainly on the prevalence rate and how frequently adolescents engage in cyber bullying (Raskauskas & Stolz, 2007; Smith, et al., 2008; Ybarra et al., 2004; Ferrara et al., 2018). Relatively fewer studies have examined the relationship of peer rejection and cyber bullying (e.g., Patchin et al., 2011; Pornari and Wood, 2010; Michelle et al., 2013; Olumide et al., 2015; Ferrara, 2018); while, Calvete, Orue, Estevez, Villardon, & Padilla (2010) did not find any association and argued that it may be as a result of their samples. Studying this relationship is very important as such may inform prevention and intervention programs aimed at reducing cyber bullying by targeting the risk factors of adolescent's engagement in it, which supports Michelle et al., (2013) study that follow-up research is needed in order to understand fully the predictive factors of the phenomenon studied. Another source of strain in the life of adolescent students emanates from the use of social networking sites.

Social networking services are defined as internet or mobile-based social space where people can connect with others (Boyd & Ellison, 2007). It is an interactive media source which allows young people to keep in contact and share information (Moreno, 2010). The information from the literature search shows that many adolescents interact with their social networking sites at least an hour a day; and it is a number one activity for teens (O'Dea, & Campbell, 2011). According to O'Dea et.al (2011), the most frequently used forms of online communication are: updating one's own profile, commenting on photos or other post, posting public messages to others or wall style messages, social networking instant messaging; while the reading and writing of blogs remains in the top ten online activities carried out by teens. Twitter and Facebook and Instagram represent a highly utilized forum for cyber bullying (Walker, 2015; O'Dea et al. 2011).

While some studies (e.g. Belsey, 2008; Valkenburg & Peter, 2007; Richardson & Philippa; 2011) reveal positive opportunities for online social interaction; it also provides opportunities for abuse and harassment, typically referred to as cyber bullying (Gonzales & Hancock, 2011; Ang, 2015) which may be as a result of availability of personal details and array of public peer-to-peer interactions. Yet the predictive role of Social Networking on cyber bullying has been under studied more especially in Nigeria where many think that possession of all these electronic devices and knowing how to operate them is a sign of show of popularity and richness. Drawing from the perspective of social learning theory of Bandura (1977), which assumes that people's environment causes them to behave in certain ways. Bringing it down to Nigerian context, it shows what is in vogue, and that is the era of computer age where adolescents learn many behaviours both adaptive and maladaptive behaviours from some of these electronic devices around and

when they find themselves in situations similar to what they have observed through that, the previously learned behaviours may be triggered depending on the result they wish to obtain.

Thus in this context Social Networking Sites affords the adolescents the opportunity to vicariously observe inappropriate behaviours modelled by others. In addition, the ability to anonymously interact on the internet contributes to a lower self-awareness in individuals and may lead them to react impulsively and aggressively to other individuals online in form of cyber bullying (Espelage et al., 2017). For instance, Smith, Madsen, and Moody, (2017) study reported that social networking sites such as Facebook and Instagram are the highest predictor of cyber bullying. Hence, photo-sharing site is where adolescents between 12-20 years experiences cyber bullying the most. Some other similar studies, (e.g, Gonzale, et.al, 2011; Patchin, & Hinduja, 2015); Van-Cleemput, Vandebosch & Pabia, 2014; Ang, 2015) reported similar findings on the predictive role of social networking on cyber bullying. Therefore, it is hypothesized that the use of social networking will significantly increase an adolescent's likelihood of experiencing cyber bullying.

Objectives of the Study

The first objective of the study is to examine the relationship between peer rejection and cyber bullying among. Secondly, this study will also examine the relationship between social networking and cyber bullying.

Hypotheses

Two hypotheses were tested at 0.05 level of significance. a) There will be no statistically significant relationship between peer rejection and cyber bullying among adolescent secondary school students. b) There will be no statistically significant relationship between social networking and cyber bullying among adolescent secondary school students.

Method

Participants-Three hundred and forty secondary school students (adolescents) participated in the study (235 female and 105 male). These participants were randomly selected from six secondary schools out of the 12 Council Zones in Otukpo local Government Area of Benue state, namely: St. Anne's secondary school, Domax secondary school, Nicholson secondary school, Beulah secondary school, Ujor memorial college, and El-king College. In each secondary school minimum numbers of thirty (30) participants were selected; that means using stratified random sampling technique, five (5) students were drawn from each stratum (J.S.S.1-S.S.3) and the secondary with the maximum number had one hundred and twenty-eight participants. The participants were between 13-19 years with a mean age of (14.15 SD=1.49)

Instruments

Three instruments were used for the study. They include the Rejection Sensitivity Scale (Feldman & Downey 1998), Social Networking Scale (Edward, 2014), and Cyber bullying Scale (Sticca, Ruggieri, Alsaker & Perren, 2013). The Rejection Sensitivity Scale is a 12-item instrument developed by Feldman & Downey (1998). It measures rejection expectation in children behaviour. Using a six likert scale ranging from 1 (Not Nervous), 2 (Nervous), 3 (A little Nervous), 4 (Moderately Nervous), 5 (Very Nervous), to 6 (Extremely Nervous). Participants were provided with twelve separate scenarios and ask to respond to them. Some examples of item in the scale are: "imagine you want to buy a present for someone who is really important to you, but you do not have enough money; so you ask a kid in your class if you could please lend me some money", 'imagine you are the last to leave your classroom for lunch one day; as you are running down the stairs to get the cafeteria, you hear some kids whispering on the stairs below you, you wonder if they are talking about you'. Imagine that a kid in your class tells the teacher that you were picking on him/her; you say you did not do it'. 'The teacher tells you to wait in the hallway and she will speak to you; you wonder if the teacher will believe you'. Imagine that a famous person is coming to visit your school; your teacher is going to pick five kids to meet this person. You wonder if she will choose you. The sentences viewed indicate some degree of rejection. In order to validate the scale for the present study, a pilot study was conducted using 60 participants drawn from St. Francis College Otukpo (See Appendix B). They consisted of 26 males and 34 females. They were aged between 13 - 19 years (Mean age = 14.15, *SD* = 1.49). Internal consistency reliability of the rejection sensitivity scale was acceptable (Cronbach's alpha, $\alpha = .74$).

The Social Networking Scale is a 12-item instrument developed by Edward (2014). It measures how often individuals make use of social media sites using a four Likert scale. Ranging from 1 (Strongly Disagree), 2 (Disagree), 3 (Agree), to 4 (Strong Agree). The participants were provided with twelve scenarios and ask to respond to them. Some examples are: Are you a member of multiple social networking site? Do you visit your social networking site with no goal or specific purpose in mind? Are you usually surprised by how much time you spend on a social networking site? In order to validate the scale for the present study, a pilot study was conducted using 60 participants drawn from St. Francis College Otukpo (See Appendix B). They consisted of 26 males and 34 females. They were aged between 13 - 19 years (Mean age = 14.15, *SD* = 1.49). Internal consistency reliability of the Social Networking Scale was good (Cronbach's alpha, $\alpha = .80$).

The Cyber Bullying Scale is a 12-item instrument developed by Sticca, Ruggieri, Alsaker & Perren (2013). It measures aggressive or bullying behaviours using a five Likert scale. The first six items (Q1-6) solicit information regarding the frequency participants have engaged in cyber bullying, while the second six items (Q7-12) determine if participants have been the victim of cyber bullying. Participants were provided with twelve separate scenarios and asked to rate their responses, based on frequency of occurrence, ranging from 1 (Never) 2 (1-2 times) 3 (Once a month) 4 (Once a week) to 5 (Almost Every day). Participants who scored above six in the cyber bullying

and/or cyber victimization section were classified as cyber bullies and/or cyber victims. Some examples of items in the scale are: Have you sent mean or threatening message to anyone? Have you sent threatening pictures to anyone? Have you sent mean or embarrassing messages or spread rumours about anyone to your friends? The sentences in item signify high degree of cyber bullying. In order to validate the scale for the present study, a pilot study was conducted using 60 participants drawn from St. Francis College Otukpo (See Appendix B). They consisted of 26 males and 34 females. They were aged between 13 - 19 years (Mean age = 14.15, *SD* = 1.49). For the Cyber bullying scale, internal consistency reliability of the Scale was high (Cronbach's alpha, $\alpha = .88$).

Procedure

An introduction letter was collected from the Head, Department of Psychology, University of Nigeria, Nsukka for the study. The researchers presented the letter to the principals of the schools in order to obtain approval to conduct the study. With the approval from the principals, participants were selected from junior secondary school one to senior secondary school three of the various secondary schools visited. The researcher obtained permission from the school authority of each of the schools involved in the research two weeks before the day of the study. A copy of the instruments was given to each of the students selected to fill on their own with adequate instructions given to them. Some of their teachers served as research assistants and they helped in sharing the questionnaires and in the conduct of the study. The administration of the instruments lasted for an hour to make sure that they will not leave any one unanswered. At the expiration of one hour, the questionnaires were collected from the participants and the responses of each scale were scored appropriately and later subjected to data analysis.

Design/Statistics

The study adopted a cross-sectional survey design. Then Hierarchical multiple regression analysis was used for data analysis.

Results

The correlations of the demographic variables and study variables are shown in Table 1. The hierarchical multiple regression analysis for testing the hypotheses is shown in Table 2.

Table 1: Inter correlations of demographic and study variables

Variables	1	2	3	4
1 Age	-			
2 Gender	-.02	-		
3 Class	.46**	.35***	-	
3 Rejection sensitivity	-.13*	.03	-.09	-
4 Social networking	.14**	.18**	.28***	.09
5 Cyber bullying	-.010	-.17**	-.06	.05

Note. *** $p < .001$; ** $p < .01$; * $p < .05$; Gender (0 = Male, 1 = Female)

In Table 1, age was positively correlated with class ($r = .46, p < .001$) and social networking ($r = .14, p < .01$) but age was negatively related to rejection sensitivity ($r = -.13, p < .03$). Gender had a positive correlation with class ($r = .35, p < .001$), indicating that females were in the higher classes, and it was positively associated with social networking ($r = .18, p < .01$). Gender also had a negative relationship with cyber bullying ($r = -.17, p < .01$). Class had a positive relationship with social networking ($r = .28, p < .001$).

Table 2: Hierarchical multiple regression predicting cyber bullying by rejection sensitivity and social networking

Predictors	Step 1			Step 2			Step 3		
	B	Beta (β)	T	B	Beta (β)	t	B	Beta (β)	t
Age	-	-	-	-	-	-	-	-	-
Gender	-2.83	-.17*	-3.17*	-2.86	-.17*	-3.20*	-3.45	-.21**	-3.93**
Rejection sensitivity				.05	.06	1.02	.03	.04	.67
Social networking							.22	.22**	4.09**
R ²	.03			.03			.08		
ΔR^2	.03			.00			.08		
F	10.04* (1, 338)			5.54 (2, 337)			9.44** (3, 336)		
ΔF	10.04* (1, 338)			1.04 (1, 337)			16.71* (1, 336)		

Note: ** $p < .001$; * $p < .01$; ΔR^2 = Change in R^2 ; ΔF = Change in F

In Table 2, gender was added to the step 1 of the regression analysis due to its significant correlation with cyber bullying. Hence it was made a control variable. It was found that gender negatively predicted cyber bullying experiences ($\beta = -.17, p < .01$), indicating females reported lesser experience of cyber bullying. It accounted for 3% of the variance

in cyber bullying ($\Delta R^2 = .03$). The F statistics associated with gender in relation to cyber bullying was 10.04 (1, 338), $p < .01$. **In step 2**, rejection sensitivity which was the first predictor variable in this study did not significantly predict cyber bullying ($\beta = .04$). It did not explain any variance in cyber bullying ($\Delta R^2 = .00$). The F statistics associated with rejection sensitivity in relation to cyber bullying was not significant, $F(2, 337) = 5.54$. **Step 3** of the regression analysis showed that social networking was a significantly positive predictor of cyber bullying ($\beta = .22$, $p < .001$), indicating that higher social networking was associated with greater experience of cyber bullying. The $B(.22)$ showed that for every one unit rise in social networking, cyber bullying increases by .22 units. It accounted for 8% of the variance in cyber bullying ($\Delta R^2 = .08$). The F statistics associated with social networking in relation to cyber bullying was 9.44 (3, 336), $p < .001$.

Discussion

This study examined peer rejection and social networking as predictors of cyber bullying among in-school adolescents. Two hypotheses were tested in this study, and the result of the analysis showed that peer rejection had no significant relationship with the criterion variable, meaning that, it did not predict cyber bullying among in-school adolescents. The result supports the first hypothesis which stated that there will be no statistically significant relationship between peer rejection and cyber bullying. Therefore the null hypothesis is accepted. This suggests that peer rejection may not always lead to cyber bullying experience, meaning that, the severity or the effect of rejection depends on ones' perception. Some persons will take it in good faith, while some will be emotionally down. This finding supports the findings of Clvete, et al. (2010) which reported no significant relationship between peer rejection and cyber bullying.

The result of the second hypothesis showed that social networking was a significant predictor of cyber bullying among in-school adolescents. The result of the present study does not support the second hypothesis which stated that there will be no statistically significant relationship between social networking and cyber bullying among in-school adolescents. Therefore, the null hypothesis was rejected. This suggests that higher social networking is associated with greater experience of cyber bullying, meaning that the greater the engagement in social networking activities the more they are cyber bullied. The present findings suggest that higher engagement in social networking activities will prompt more of cyber bullying and is in consonance with some previous findings (e.g., Smith, Madsen, & Moody, 2017; Ang, 2015; Patchin et al., 2014)). The result of their study showed that cyber bullying occurs across a variety of venues and medium in cyberspace, and it should not come as a surprise that it occurs most often where teenagers hang out in chat rooms, and as a result that is where most harassment takes place. The present study contradicts (Richardson, et al, 2011; Moreno, 2010) who did not find any significant association between social networking and cyber bullying. In recent times, most teenagers have been drawn to social networking sites (such as Facebook, Instagram, Snapshot, and Twitter) and video sharing sites (such as YouTube). This trend has led to increased report of cyber bullying occurring in those environments.

Cyber bullying activities encompass intimidation, embarrassment, threatening, and humiliation of others. Therefore people who have the intention of cyber bullying others can easily use the social networking sites like face book, Twitter, Instagram, blogs and YouTube in carrying out their nefarious act on their followers. Therefore, it is recommended that: (a) government should make policies that will regulate and limit cyber bullying experience. For instance, they should monitor the activities of online service providers and make sure those policies are fully implemented. (b) Individualized intervention for children affected by cyber bullying either as victims or bullies need to be developed to resolve conflict and mitigate negative consequences that may result. Employing a whole system approach is appropriate as it provides a framework of action that can be drawn when incidents are reported and further creates a systematic intervention that involves the cooperation of all relevant role players and raises the awareness about the importance placed on addressing this issue. In addition, schools should put up intervention programs that will educate both the bully and victims of cyber bullying.

Also from the present study, it was discovered that the higher the age of the individual the likelihood that such individual will experience cyber bullying. More females reported higher experiences of cyber bullying. The reason may be because cyber bullying is a relational type of bullying, and females prefer carrying rumours about instead of a face-to-face confrontation. Secondly, it may be as a result of culture and gender role expectation, for instance in Nigeria females are reared under close observation and for that they are not expected to react openly in an aggressive way; so for that they prefer relational form of aggression than physical fight. Since it is prevalent among the female there should be taught problem solving skills on how best to handle general bullying experience. Females in the senior secondary school class reported more of cyber bullying experience than females in junior secondary school. It may be because as they grow older they prefer relational type of aggression as a coping strategy to overcome their distress instead of face-to-face combat.

Limitations of the study and suggestions for further study

Like every other research in social sciences, this study has some limitations. The result of the findings cannot be used to generalize to the whole population of secondary school students in Nigeria since the participants were drawn from few schools around the area. Social networking as a predictor of cyber bullying also has positive effect to various users but the study could not project them. Some other variables like socio-economic status should be studied by subsequent researchers. Researchers who may be interested in the study of peer rejection and social networking as predictors of cyber bullying should endeavor to include such variables in their study. Research of this kind needs time for better responses from participants which require longitudinal method of research.

Summary and Conclusion

The study examined peer rejection and social networking as correlates of cyber bullying among in-school adolescents. Three hundred and forty (340) participants were involved

in the study. Two hundred and thirty-five (235) were female while one hundred and five (105) were male. The age of the participants in the study ranged from 13-19 years old and their (mean age= 14.15, SD= 1.49). Three scales were used for the study which include; Rejection Sensitivity Scale developed by (Feldman and Downey, 1998), Social Networking Scale developed by (Edward, 2014), and Cyber Bullying Scale developed by (Sticca, Ruggieri, Alsaker, & Perren, 2013). Hierarchical multiple regression was used for the data analysis. From the result of the findings, it was observed that peer rejection did not predict cyber bullying experience. But social networking predicted cyber bullying experience and also the female in the most senior class reported higher experience of cyber bullying than female in the lower category. This indicates that higher cyber bullying is prevalent with the female gender than the male gender.

References

- Ang, R. P. (2015). Adolescent cyber bullying: A review of characteristics prevention and intervention strategies. *Aggression and Violent Behavior, 25* 35-42. Doi:10.1016/j.avb.2015.07.011.
- Bauman, S., Toomey, G., Walker, J. L. (2013). Associations among bullying, cyber bullying, and suicide in high school students. *Journal of Adolescence, 36*, 341–350
- Berger, C., & Caravita, C.S. (2016). Why do Early Adolescents Bully? Exploring the Influence of prestige norms on social and psychological motives to bully. *Journal of Adolescence, 46*, 45-56
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of computer-mediated Communication, 13*(1), 210-230.
- Brendgen, M., Vitaro, F., Doyle, A. B., Markiewicz, D., & Bukowski, W. M. (2002). Boyfriends, girl friends, and same-sex peers: Relations to early adolescents' emotional, behavioral, and academic adjustment. *Merrill-Palmer Quarterly, 48*(1), 77–103. Doi:10.1353/mpq.2002.0001
- Calvete, E., Orue, I., Este'vez, A., Villardo'N. L., & Padilla, P. (2010). Cyber bullying in adolescents: Modalities and aggressors' profile. *Computers in Human Behavior, 26*(5), 1128–1135. Doi:10.1016/j.chb.2010.03.017.
- Casas, J.A., Del-Rey, R., & Ortega-Ruiz, R. (2013). Bullying and cyber bullying: convergent and divergent predictor variables. *Computers in Human Behavior, 29*, 580-587. Doi: <http://dx.doi.org/10.1016/j.chb.2012.11.015>
- Duncan, S. (2008). MySpace is also their space: Ideas for keeping children safe from sexual predators on social-networking sites. University of Louisville School of Law Legal Studies Research Paper Series No. 2008-13. Kentucky Law Journal, 96.
- Espelage, D. L., Hong, J. S. (2017). Cyber bullying prevention and intervention efforts: Current knowledge and future directions. *The Canadian Journal of Psychiatry, 62*, 374-380. Doi:10.1177/0706743716684793.
- Ferrara, P., Ianniello, F., Villani, A., & Corsello, G. (2018). Cyberbullying a modern form of bullying: let's talk about this health and social problem. *Italian Journal of Pediatrics, 44*(1), 14.

- Frude, N. (1993). Hatred between children. In V. P. Verma & J. Kingsley (Eds.), *How and why children hate* (pp. 72–93). London: Jessica Kingsley.
- Gonzales, A. L., & Hancock, J. T. (2011). Mirror, mirror on my Facebook wall: Effects of exposure to Facebook on Self-Esteem. *Cyber Psychology, Behavior and Social Networking*, 14(1-2), 79-83. Doi: 10.1089/cyber.2009.0411
- Hinduja, S., & Patchin, J. (2009). *Bullying beyond the schoolyard: Preventing and responding to cyber bullying*. Thousand Oaks: Sage Publications.
- Hinduja, S., & Patchin, J. W. (2007). Offline consequences of online victimization: School violence and delinquency. *Journal of School Violence*, 6(3).
- Houlston, C. & Smith, P. K. (2010) The impact of a peer counseling scheme to address bullying in an all-girl London secondary school: A short-term longitudinal study. *British Journal of Educational Psychology*, 79, 69–86.
- Juvonen, M. J., & Gross, E. F. (2008). Extending the school grounds: Bullying experiences in cyber space. *Journal of School Health*, 78(9), 496-505
- Keith, S., & Martin, M. E. (2005). Cyber bullying: Creating culture of respect in a cyber world. *Reclaiming Children and Youth*. 13(4), 224-228
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: Critical review and meta-analysis of cyber bullying research among youth. *Psychology Bulletin*. 140(4), 1073-1137.
- Kowalski, R., Limber, S. (2013). Psychological, physical, and academic correlates of cyber bullying and traditional bullying. *Journal of Adolescent Health*, 5, *Leadbeater*, B. J., & *Hoglund*, W. L. G. (2009). The effects of peer victimization and physical aggression on changes in internalizing from first to third grade. *Child Development*, 80, 843–859.
- Moreno, M. A. (2010). Social Networking Sites and adolescents. *Pediat Annals*, 39(9), 565-568.
- Nesdale, D., & Duff, A. (2011). Social identity, peer group rejection, and young children's reactive, displaced, and proactive aggression. *British Journal of Developmental Psychology*, 29(4), 823–841. Doi:10.1111/j.2044-835X.2010.02012.x.
- Newcomb, A.F., & Bukowski, W.M., & Pattee, L. (1993). Children's peer relations: A meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. *Psychological Bulletin*, 113, 99-128.
- O'Dea, & Campbell, A. J. (2011). Online Social Networking among teens: Friend or Foe? In B. K. Wiederhold, S. Bouchard & G. Riva (Eds.), *Annual Review of Cyber therapy and Telemedicine*, (Vol. 167, pp. 133– 138): IOS Press.
- O'Dea, B., Wan, S., Batterham, P. J., Calear, A. L., Paris, C., & Christensen, H. (2015). Detecting suicidality on Twitter. *Internet Interventions*, 2(2), 183-188.
- Odora, R. J. & Matoti, S. N. (2015). The nature and prevalence of cyber bullying behaviours among South African high school learners. *International Journal of Education Science* 10 (3), 399-409
- Patchin, J. W., & Hinduja, S. (2011). Traditional and nontraditional bullying among youth: A test of general strain theory. *Youth and Society*, 43(2), 727-751. <http://doi.org/10.1016/j.jecp.2012.05.009>.

- Patchin, J. W., & Hinduja, S. (2015). Measuring cyberbullying: Implications for research. *Aggression and Violent Behavior, 23*, 69-74.
- Pornari, C.D., & Wood, J. (2010). Peer and cyber aggression in secondary school students: The role of moral disengagement, hostile attribution bias, and outcome expectancies. *Aggressive Behavior, 36*(2), 81-94. Doi:10.1002/ab.20336.
- Quintana-Orts, C. & Rey, L. (2018). Forgiveness and cyber bullying in adolescence :Does willingness to forgive help minimize the risk of becoming a cyber bully? *Computers in Human Behaviour, 81*, 209-214.
- Raskauskas, J., & Stoltz, A. (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology, 43*(3), 564-575. Doi:10.1037/0012-1649.43.3.564
- Rigby, K. (2011) *The method of shared concern: A positive approach to bullying*. Camberwell, ACER.
- Sanders, J. (2009, August). Cyberbullies: Their motives, characteristics, and types of bullying. Presentation at the XIV. European Conference of Developmental Psychology, Vilnius,
- Sheriff, S. & Gouin, R. (2005). Cyber-dilemmas: Gendered hierarchies free expression and cyber-safety in school. Paper presented at safety and security in a networked world: Balancing cyber-rights and responsibilities. Oxford Internet Institute Conference, on September 8, 2005, Oxford, U.K.
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry, 49*(4), 376-385.
- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyber bullying victimization. *Computers in Human Behavior, 26*, 277-287.
- Townsend, M. A. R., McCracken, H. E., & Wilton, K. M. (1988). Popularity and intimacy as determinates of psychological well-being in adolescent friendships. *Journal of Early Adolescence, 8*, 421-436.
- Valkenburg, P. M., & Peter, J. (2007). Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology, 43*, 267-277.
- Van Cleemput, K., Vandebosch, H., & Pabian, S. (2014). Personal characteristics and contextual factors that determine "helping," "joining in," and "doing nothing" when witnessing cyberbullying. *Aggressive Behavior, 40*(5), 383-396.
- Vandebosch, H & Van Cleemput, K (2009). Cyberbullying among youngsters: Profiles of bullies and victims. *New Media & Society, 11*, 1349-1371
- Wright, M.F., & Li, Y. (2013). The Association between Cyber Victimization and Subsequent Cyber Aggression: The Moderating Effect of Peer Rejection. *Journal of Youth and Adolescence, 42*, 662-674. Doi: <http://dx.doi.org/10.1007/s10964-012-9903-3>

Ybarra, M. L., & Mitchell, K. J. (2004). Online aggressor/targets, aggressors, and targets: A comparison of associated youth characteristics. *Journal of Child Psychology and Psychiatry*, 4(7), 1308-1316.5