

# Unpacking cyberbullying: The influence of age, gender, and social media addiction

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## ABSTRACT

**Purpose:** The quantitative study was aimed at examining the implications of age, gender, and social media addiction on cyberbullying among senior secondary school pupils in Keffi Nasarawa State, Nigeria.

**Design/Methodology/Approach:** The study adopted survey design of the ex post facto type. The study selected a sample size of 373 students to participate. Two instruments were used to collect data: the Cyberbullying Questionnaire and Bergen Social Networking Addiction Scale. The multiple linear regression statistics were used to analyse the hypotheses in the study.

**Findings:** Results reveal that there was a significant relationship between age and cyberbullying among senior secondary students. Also, there was a significant relationship between gender and cyberbullying among senior secondary school student's in Keffi Nasarawa State, Nigeria. However, there was no significant relationship between social media and cyberbullying among senior secondary school students in Keffi Nasarawa State, Nigeria.

**Conclusion:** The study concluded that age and gender are significantly correlated with cyberbullying among senior secondary school pupils, while social media addiction was not significantly correlated with cyberbullying among senior secondary school pupils in Keffi Nasarawa State, Nigeria. The researchers recognize the need for adopting a policy that would avoid the frequent occurrence of cyberbullying activities, since if a victim feels terrified and isolated among his/her colleagues, he/she may begin to acquire negative ideas, which will then damage his/her performance. Cyberbullying happens often in schools; administrators should take appropriate measures against the perpetrator(s).

**Keywords:** Age, Bullying, Cyber, Gender, Social media addiction.

## 1. INTRODUCTION

According to information released by UNICEF (2017) approximately more than 70% of youth globally could access internet. From a population of 751 million internet users, 19.4% constituted adolescents, aged 10- 19 years old (China Internet Network Information Center (CNNIC), 2017). Despite the significant impact of technology and its advancements on global socialization and connectivity, we cannot ignore the issue of cyberbullying. Experts view cyberbullying is viewed as a public health concern that impacts adolescents. Various scholars define it as an intentional, aggressive act in which hurtful messages, unflattering pictures, or videos that could be degrading one's self-image are circulated through cell phones or internet (Almeida, Caurcel, & Machado, 2020). Kowalski and Limber (2007) found that cyberbullying has other components, such as repetitive conduct and power imbalances between the victims and perpetrators. The same perpetrators can insult their victims many times using different false names and unfounded email addresses to hurt the victims emotionally (Låftman, Modin, & Östberg, 2013).

Globally, the phenomenon of cyberbullying continues to reach alarming proportions, and teenagers often appear to be the victims as they tend to receive negative comments and threats from strangers in the form of social solicitation (Djuraskovic, 2021; Xu & Trzaskawka, 2021). Social solicitation occurs when minors engage in sexual talks and share sexual pictures with someone unknown to them on internet (Hornor, 2020). Very often, social solicitation is

dangerous, as the sexual predators could be older individuals who develop trust, pretend to be caring, and request the minors' personal information, such as their home address and telephone numbers, and to meet face-to-face (Hornor, 2020). One study on cyberbullying in Spain indicated that there was 12% of sexual solicitations where victims as young as 17 years were sexually harassed by adults (De Santisteban & Gamez-Guadix, 2017). A disproportionate number of adolescents in Europe (Sorrentino, Baldry, Farrington, & Blaya, 2019) reported that they are victims of cyberbullying. In Singapore, about 51% of teenagers reported online harassment, while in Lebanon, approximately 90% of school learners reported to have been bullied online, sexually harassed, and insulted (Awad et al., 2021).

Although in Nigeria, cyberbullying is prohibited under the Cybercrime Act 2015 (Code Act and Penal Code) (Adediran, 2021), research shows that because of cyberbullying, secondary school adolescents from Oshodi, Isolo, Lagos metropolitan areas experienced domestic violence, and depression (Akpunne, Ayodele, Babatunde, Ogunsemi, & Ndubisi, 2020). As much as cyberbullying is covert as compared to the traditional bullying, it is important for parents and educators to be on the lookout for emotional, physical, and psychological consequences (Kowalski & Limber, 2007). Researchers should devise strategies to combat social media addiction among adolescents because its ramifications include low academic achievements, risky sexual behaviour, moral disengagement, and poor mental health (Alberts & Kheswa, 2017). Social media addiction refers to a compulsive behaviour that is associated with an inability to control or resist cravings or impulses to go online and has negative effects such as eye strain, insomnia (lack of sleep), headache, negative emotions, and psychological distress (Chung, Sum, & Chan, 2019; Liu et al., 2023). This is not surprising because Saritzky and Connolly (2009) found that adolescents log on to the internet multiple times in one day for socialization and accessing information.

Previous studies conducted in Nigeria focused on the relationship between problematic internet use, suicidality, depression, anxiety, and self-esteem among adolescents (Opakunle, Opakunle, Toki, Aloba, & Nwozo, 2022). Findings depicted adolescents who abuse drugs and alcohol had a high mean score on problematic internet use, suicidality, depression, and anxiety but lower self-esteem. Another study Anyira and Udem (2020) examined the impact of social media addiction on reading among university students during the COVID-19 lockdown, finding that only 7% had read their books, while 75% reported engaging in social media activities. In Abuja, Nigeria, among youth, aged 20-30 years old, loneliness and social support were predictors of cyberbullying, and age was not a factor (Ogunkuade & Kenku, 2023). Having identified these gaps, this study intends to investigate the implications of cyberbullying on age, gender, and social media addiction among senior secondary school learners in Keffi Nasarawa State, Nigeria.

## 2. LITERATURE REVIEW

### 2.1. Adolescence and Internet Addiction

The word adolescence is derived from Latin "*adolescere*," which means to grow (Sawyer, Azzopardi, Wickremarathne, & Patton, 2018). Adolescence is a critical period in which an individual, aged 11 to 18 years, develops sexual feelings, abstract thinking, and social identity in pursuit of forming relationships with others based on the values, religion, and cultural preferences. The dependence gradually shifts from parents as independence to make informed decisions regarding peers develops (Akeusola, 2023). In an era of technological advancement, adolescents from all over the world use internet for communication and for their studies (Ganca & Kyobe, 2022).

### 2.2. Age, Gender, and Cyberbullying

Although most studies on cyberbullying, nevertheless, no significant age or grade disparities have been observed, numerous studies support the idea that junior high school-aged kids are the most vulnerable to cyberbullying. According to Williams and Guerra (2007) cyberbullying peaks in eighth grade and subsequently drops by eleventh grade (Vandebosch & Van Cleemput, 2008). Similarly, Slonje and Smith (2008) discovered that cyberbullying rates were greater among young individuals aged 12 to 15 than in those aged 15 to 18 (Vandebosch & Van Cleemput, 2008). Some studies have also shown evidence for the claim that older kids cyberbully more than younger youth. A UK study found that older youth were 5% more likely to engage in cyberbullying than younger children (Tarapdar & Kellett, 2011). Similarly, they are to engage in cyberbullying. Agreeing more with the findings above is Salazar, Raj, Silverman, Rusch, and Reed (2023) from San Diego next to the Mexico-USA border, where adolescent girls, in a qualitative study, reported to be victims of social solicitation, especially following exchanging nude photos with their

male partners. Furthermore, the participants expressed that they received threats that their photos would go viral if they decided to discontinue the sexual relationships.

### *2.3. School Environment and Family Setting*

According to [Akeusola \(2023\)](#) a safe school environment promotes responsible internet users for social networking and educational purposes. On the contrary, when the school environment is hostile, secondary school adolescents can cyberbully one another without the knowledge of the educators ([Olasanmi, Agbaje, & Adeyemi, 2020](#)). To prevent the effects of cyberbullying on adolescents, parents should provide as much emotional support as possibly can by developing a parent-child relationship characterized by parental warmth, open communication, and inculcation of morals ([Olasanmi et al., 2020](#)). Furthermore, there should be empowerment programmes that emphasize anger management training for adolescents to help one another because when there are no interventions and they continue to witness bullying, they are more likely to become violent and lack empathy.

On the other hand, [Chan and Wong \(2015\)](#) established that adolescents who grow up in a family atmosphere where there are ground rules with respect to accessing information online often alert their parents of stalkers who try to lure and introduce them to immorality. Elaborating on Diana Baumrind's parenting styles, adolescents from uninvolved parents' households may feel threatened, fall into trap of verbal abuse when receiving meanness and humiliation from their stalkers, and end up complying to meet personally because parents do not confront them about it ([Weinstein & Selman, 2016](#)) especially when they exchange nude pictures with paedophiles ([Özgür, 2016](#)). Adults with a disorder known as Paedophiles exhibit a strong sexual attraction towards minors, frequently sharing pornographic content, engaging in sexting, sexual grooming, and blackmailing ([Ali, Haykal, & Youssef, 2023](#)).

### *2.4. Cyber Dating*

Among adolescents in dating or sexual relationships, research indicates that they might be at heightened risks of cyberbullying. The perpetrators can target the victims by tracing their whereabouts, calling them repeatedly, and demanding video calls. Like cyberbullying, cyber dating abuse includes sending the personal information to strangers, including their pictures ([Van Ouytsel, Ponnet, Walrave, & Temple, 2016](#)). Jessor's problem behaviour theory posits that in cyber dating, problem behaviours such as risky sexual behaviour are interrelated and originate from the same environmental and personal predictors ([Jessor, 2014](#)). Adolescents who live in a different environment or family setting may be exposed to frequent use of social media and controlled by online abusers ([Van Ouytsel et al., 2016](#)). For instance, in Texas, [Van Ouytsel et al. \(2016\)](#) found that 17.8% of adolescents who were in dating relationships had been exposed to drugs and alcohol, deviant behaviour as compared to nonsubstance users counterparts, and had a higher likelihood of engaging in cyber dating abuse.

### *2.5. Consequences of Internet Addiction*

A wealth of research continues to show that adolescents who perform poorly, academically have experienced internet addiction. In Indonesia, academic stress and internet addiction had a strong correlation, as adolescents would spend more than 6 hours per day ([Sriati, Lukman, & Agustina, 2022](#)). Owing to internet addiction, adolescents' obsession may interfere with their psychological well-being and disturb their everyday activities, such as social and academic functioning.

## **3. THEORETICAL FRAMEWORK**

This research study was guided by alternate theories of internet addiction by John M. Grohol, Albert Bandura's social learning theory and B.F. Skinner's operant conditioning.

### *3.1. Alternative Theory of Internet Addiction*

According to [Grohol \(1999\)](#) all first-time users of the internet become attracted to new products, services, and people for chatrooms and become immersed (acclimation) through spending a lot of time. Such first-time users become obsessed and end up disillusioned. As the time progresses, the utilization and accessibility to the internet declines (i. e., avoidance), and balance is struck, in which an individual is no longer obsessed with the internet like before. In Nigeria, adolescents were found to be using social media for gratification; hence, they accepted friend requests from many people to accumulate "likes" and "follows" on Instagram ([Afolabi, Ilesanmi, & Adebayo, 2022](#)).

Because of internet addiction, findings show that adolescents with obsession experienced poor academic performance, impaired general well-being, poor parent-child communication, and vulnerability to cyberbullying in comparison to their non-addicted internet user's counterparts (Tauna, 2022).

### 3.2. Social Learning Theory and Operant Conditioning

From Bandura's social learning theory, children learn through modelling or observing behaviour. From an early age, children tend to display aggressive behaviour following witnessing a fight. Referring to a classical experiment of a Bobi-doll by Milligram (Bandura, Ross, & Ross, 1963) children developed following the model that punched the doll. This implies that parents who have a low regard for social bullying may contribute to their children's aggressive behaviour and fail to provide emotional support during victimization directed at their abused children (Rigby, 2013). B.F. Skinner's views on operant conditioning are that learned behaviour can be shaped by means of reinforcement, punishment, or extinction processes (Gentile & Gentile, 2022). Rewarding a behaviour can give impetus for such behaviour to occur in future. In cyberspace, Barlett and Gentile (2012) found that family members and peers can promote negative behaviour by applauding online harassment, hitting someone, or ruining their reputations through spreading rumors.

### 3.3. Objective of the Study

The primary goal of this research is to examine how age, gender, and social media addiction affect cyberbullying. The study will establish the following particular goals:

- i. To ascertain how age is related to cyberbullying in Keffi, Nasarawa State, Nigeria, among senior secondary school students.
- ii. To investigate how gender correlates with senior secondary school cyberbullying in Keffi, Nasarawa State, Nigeria.
- iii. To look into how cyberbullying among senior secondary school students in Keffi, Nasarawa State, Nigeria, is related to social media addiction.

### 3.4. Hypotheses

The following alternate hypotheses were tested in the study

1. Age and cyberbullying will be significantly correlated among senior secondary school students in Keffi, Nasarawa State, Nigeria.
2. Gender and cyberbullying will be significantly correlated among senior secondary school students in Keffi, Nasarawa State, Nigeria.
3. Cyberbullying and social media use in senior secondary schools in Keffi, Nasarawa State, Nigeria, would be significantly correlated.

## 4. RESEARCH METHOD

### 4.1. Research Design and Sample

The study adopts survey design of the ex post facto type. The choice of the ex post facto design is because the independent variables are not manipulated but are present prior to the study in the participants. The independent variables are age (younger and older adolescents), gender (male and female), and social media addiction (low and high). The dependent variable is cyberbullying. All adolescents (N=315) who participated in this study were randomly drawn from 15 secondary schools in Keffi city in Nasarawa State, Nigeria. In random sampling, all participants have an equal chance. Prior to conducting the research, permission from the administrators, and teachers was granted. Parents also gave assent since the participants were under 18 years old. During completion of the closed-ended questionnaires anonymously by the participants, the researchers ensured that no information would be shared with their teachers. Hence, after participation, the questionnaires were all collected for confidentiality.

### 4.2. Instruments

#### 4.2.1. The Cyber Bullying Questionnaire (CBQ)

The 16-item Cyber Bullying Questionnaire (CBQ) tool was utilized in this study to measure gender differences, and its reliability has been found in African American youth studies, Lee (2017). The items are on a three-level Likert

scale. In measuring cyberbullying and its relationship with academic stress among students in the province of Turgurahua, a Cronbach alpha of  $\alpha = 0.885$ . was yielded (Larzabal-Fernández, Ramos-Noboa, & Hong Hong, 2019).

#### 4.2.2. The Bergen Social Networking Addiction Scale (BSNAS)

Andreassen, Torsheim, Brunborg, and Pallesen (2012) created the Bergen Social Networking Addiction Scale (BSNAS). It consists of six measures that reflect the fundamental elements of addiction: salience, conflict, mood modulation, withdrawal, tolerance, and relapse. Examples of items on the 5-point Likert scale are: "I feel an urge to use social media more and more" and "I spend a lot of time thinking about social media or planned use of social media." The Bergen Social Networking Addiction Scale (BSNAS) has demonstrated satisfactory psychometric qualities in several studies and has been translated into a few languages (Andreassen et al., 2012; Wang, Ho, Chan, & Tse, 2015). Internal consistency of the Bergen Social Networking Addiction Scale (BSNAS) yielded a Cronbach's alpha = .88.

#### 4.3. Method of Data Analysis

The study's first hypothesis will be analysed using the linear regression statistics. One statistical method for assessing the associations between variables is linear regression analysis. When the focus is on the relationship between a dependent variable and one or more independent variables used to predict the value of a dependent variable (also known as an outcome variable) based on the value of two or more independent variables (also known as predictor variables), it includes many techniques for modelling and analysing several variables. The following is the linear regression equation:  $Y = b_0 + b_1 X_1 + b_2 X_2 + \dots + b_p X_p$ .

Where Y is the anticipated or predicted value of the dependent variable,  $b_0$  is the value of Y when all of the independent variables ( $X_1$  through  $X_p$ ) are equal to zero, and  $b_1$  through  $b_p$  are the estimated regression coefficients.  $X_1$  through  $X_p$  are independent or predictive variables. Each regression coefficient displays the variation in Y as a function of the relevant independent variable that has been altered by one unit. The justification for using linear regression analysis stems from its ability to adjust or account for potentially confounding variables within the model. Additionally, it allows one to estimate the correlation between a specific independent variable and the result while keeping the values of all other variables constant.

## 5. RESULTS

Three hypotheses were tested in the study with the Multiple Linear Regression statistic at  $p \leq 0.05$  significance level. The results are presented below:

Regression Model 1:

$$PTOF = b_0 + b_1AGE + b_2GEN + b_3SMA + U_2 \quad (1)$$

Where:

AGE = Age of participants.

GEN = Gender.

SMA = Social media addiction.

$U_2$  = Error.

**Table 1.** Regression summary for cyberbullying: Age, gender, and social media addiction.

$R^2$	F change	df1	df2	Sig. F change	Durbin-Watson
0.274	6.335	4	311	0.0005	2.011

Table 1 shows the regression model summary for cyberbullying: age, gender, and social media addiction. The result indicates that at the 5% level of significance, the coefficient of determination was  $R^2 = 0.274$ ,  $F(4, 311) = 6.335$ , and  $D.W = 2.011$ . This demonstrated that the model could account for the 27.4% variability in cyberbullying. Closeness of fit, as measured by the model's F-statistic (ANOVA) Analysis of Variance, indicates that the model is statistically significant at the 5% ( $p < 0.05$ ) level of significance. The Durbin-Watson score of 2.011 indicates statistically significant autocorrelation between the variables being examined.

**Table 2.** Regression coefficients for cyberbullying: Age, gender, and social media addiction.

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	$\beta$		
Constant	46.710	3.090	0.001	15.118	0.000
Age	0.144	0.066	0.122	2.180	0.030
Gender	2.921	1.405	0.139	2.079	0.038
Social media addiction	0.281	0.654	0.028	0.429	0.668

Table 2 shows the regression coefficients that highlight the individual contributions of age, gender, and social media addiction to the model predicting cyberbullying. The standardized beta coefficients represent the change in cyberbullying for a one standard deviation change in each predictor, allowing for straightforward comparisons among predictors.

The results revealed that age significantly positively predicts cyberbullying ( $\beta = .122$ ,  $t = 2.180$ ,  $p = .030$ ), indicating that as age increases, the likelihood of cyberbullying slightly increases; thus, this relationship is statistically significant. Gender also significantly positively predicts cyberbullying ( $\beta = .139$ ,  $t = 2.079$ ,  $p = .038$ ), meaning that gender differences exist in the likelihood of engaging in or experiencing cyberbullying, with the positive beta suggesting that one gender might be more prone to cyberbullying than the other.

However, social media addiction does not significantly predict cyberbullying ( $\beta = .028$ ,  $t = 0.429$ ,  $p = .668$ ), indicating that the level of social media addiction does not have a statistically significant impact on the likelihood of cyberbullying in this model. Therefore, we cannot support the hypothesis that social media addiction predicts cyberbullying.

## 6. DISCUSSION

The findings of hypothesis one revealed that age was significantly correlated with cyberbullying. From this finding, it could be assumed that their inaccessibility to computers, cell phones, and other electronic devices is largely due to number of factors, namely, parental monitoring, school guidance, and cultural or religious values. A better explanation is brought by social learning theory that when parents model a good behaviour, the school climate is crime-free, and educators provide as much discipline and morals as possibly can, learners, in turn, learners become cooperative and learn to live in peace. As proposed by [Ganca and Kyobe \(2022\)](#) at the conference based on the theme “*Digital-for-Development: Enabling Transformation, Inclusion, and Sustainability Through ICTs,*” the development of anti-cyberbullying policies at schools by educators, school governing bodies, and parents can shape learners’ personalities.

Furthermore, the findings of hypothesis two revealed that gender was significantly correlated with cyberbullying. The hypothesis was supported. As far as gender is concerned, studies show inconsistent findings, as there are studies where the victimization rate is relatively higher on boys as compared to girls ([Radebe & Kyobe, 2021](#)). However, [Alhajji, Bass, and Dai \(2019\)](#) reported cyberbullying being reported extensively by girls.

The outcome of hypothesis three, indicated that social media addiction was not significantly correlated with cyberbullying the hypothesis was not supported. This finding is in line with the research by [Sriati et al. \(2022\)](#) that social media addiction impairs a wide range of behavioural, psychological, and social domains. In South Africa, even the university students from one university in the Eastern Cape Province, dropped before completing their degree because of emotional abuse attributable to cyberbullying ([Mwansa, Ngandu, & Khala, 2023](#)). In other words, it could be speculated that there is a possibility that adolescents can fall into a trap of being threatened by internet predators owing to their addiction, especially when feeling lonely and depressed.

## 7. CONCLUSION

The study concluded that age and gender are significantly correlated with cyberbullying among senior secondary schools in Keffi Nasarawa State, Nigeria. Despite the lack of correlation found between social media addiction and cyberbullying among senior secondary school students in Keffi, Nasarawa State, Nigeria, the researcher recognized the need for a policy that would stop cyberbullying from occurring frequently because if a victim feels afraid and alone among their peers, that could cause them to start thinking negatively, which could then affect their

performance. However, the study revealed a high frequency of cyberbullying in schools and suggested that the school administration should take appropriate measures against the perpetrator(s).

## 8. RECOMMENDATIONS

The study recommends policy that would stop cyberbullying from happening frequently, even though there was no correlation found between social media addiction and cyberbullying among senior secondary school students in Keffi, Nasarawa State, Nigeria. Nevertheless, the study found that cyberbullying frequently occurs in schools and recommended that the school management take appropriate action against the offender or perpetrators. Also, it is advised that teachers should take out time to monitor schoolchildren and their play patterns.

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## INSTITUTIONAL REVIEW BOARD STATEMENT

The Ethical Committee of the University of Fort Hare, South Africa has granted approval for this study on 9 September 2022 (Ref. No. KHE041SOKO01).

## TRANSPARENCY

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

## COMPETING INTERESTS

The authors declare that they have no competing interests.

## AUTHORS' CONTRIBUTIONS

Both authors contributed equally to the conception and design of the study. Both authors have read and agreed to the published version of the manuscript.

## ARTICLE HISTORY

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## REFERENCES

- Adeiran, A. O. (2021). Cyberbullying in Nigeria: Examining the adequacy of legal responses. *International Journal for the Semiotics of Law*, 34(4), 965-984. <https://doi.org/10.1007/s11196-020-09697-7>
- Afolabi, A. A., Ilesanmi, O. S., & Adebayo, A. M. (2022). Prevalence and pattern of internet addiction among adolescents in Ibadan, Nigeria: A cross-sectional study. *Cureus*, 14(2), e22293. <https://doi.org/10.7759/cureus.22293>
- Akeusola, B. N. (2023). Social media and the incidence of cyberbullying in Nigeria: Implications for creating a safer online environment. *Al-Ijtimai: International Journal of Government and Social Science*, 9(1), 97-118.
- Akpunne, B. C., Ayodele, A. O., Babatunde, S. I., Ogunsemi, J. O., & Ndubisi, C. D. (2020). Associations between exposure to domestic violence, depression and cyberbullying among secondary school adolescents. *European Journal of Medical and Health Sciences*, 2(4), 1-7.
- Alberts, C., & Kheswa, J. G. (2017). Social networks and sexual behaviour amongst adolescent females in one secondary school in Eastern Cape, South Africa. *African Population Studies*, 31(2), 3823- 3832. <https://doi.org/10.11564/31-2-1054>
- Alhajji, M., Bass, S., & Dai, T. (2019). Cyberbullying, mental health, and violence in adolescents and associations with sex and race: Data from the 2015 youth risk behavior survey. *Global pediatric health*, 6, 2333794X19868887. <https://doi.org/10.1177/2333794x19868887>
- Ali, S., Haykal, H. A., & Youssef, E. Y. M. (2023). Child sexual abuse and the internet—a systematic review. *Human Arenas*, 6(2), 404-421.
- Almeida, A., Caurcel, M. J., & Machado, J. C. (2020). Perceived characteristics of victims according to their victimized and non-victimized peers. *Electronic Journal of Research Education Psychology*, 4, 371–396.

- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale. *Psychological Reports, 110*(2), 501-517. <https://doi.org/10.2466/02.09.18.pr0.110.2.501-517>
- Anyira, I. E., & Udem, O. K. (2020). Effect of social media addiction on reading culture: A study of Nigerian students. *Library Philosophy and Practice (E-Journal), 4170*, 1-18. <https://doi.org/10.31229/osf.io/bkzhc>
- Awad, E., Haddad, C., Sacre, H., Hallit, R., Soufia, M., Salameh, P., . . . Hallit, S. (2021). Correlates of bullying perpetration among Lebanese adolescents: A national study. *BMC Pediatrics, 21*(1), 204. <https://doi.org/10.1186/s12887-021-02678-0>
- Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. *The Journal of Abnormal and Social Psychology, 66*(1), 3-11. <https://doi.org/10.1037/h0048687>
- Barlett, C. P., & Gentile, D. A. (2012). Attacking others online: The formation of cyberbullying in late adolescence. *Psychology of Popular Media Culture, 1*(2), 123-135. <https://doi.org/10.1037/a0028113>
- Chan, H. C. O., & Wong, D. S. (2015). The overlap between school bullying perpetration and victimization: Assessing the psychological, familial, and school factors of Chinese adolescents in Hong Kong. *Journal of Child and Family Studies, 24*, 3224-3234. <https://doi.org/10.1007/s10826-015-0125-7>
- China Internet Network Information Center (CNNIC). (2017). *The 40th statistical report on internet development in China*. Retrieved from <http://www.cnnic.cn>
- Chung, T. W., Sum, S. M., & Chan, M. W. (2019). Adolescent internet addiction in Hong Kong: Prevalence, psychosocial correlates, and prevention. *Journal of Adolescent Health, 64*(6), S34-S43. <https://doi.org/10.1016/j.jadohealth.2018.12.016>
- De Santisteban, P., & Gamez-Guadix, M. (2017). Persuasion strategies in online grooming of children: A qualitative analysis with sex offenders in prison. *Psychosocial Intervention, 26*(3), 139-146. <https://doi.org/10.1016/j.psi.2017.02.001>
- Djuraskovic, O. (2021). *Cyberbullying statistics, facts, and trends (2021) with charts*. Retrieved from <https://frstsiteguide.com/cyberbullying-stats/>. [Accessed May 28, 2021]
- Ganca, S. S., & Kyobe, M. (2022). *The effectiveness of school anti-cyberbullying policies and their compliance with South African laws: A conceptual framework*. Paper presented at the In International Development Informatics Association Conference (pp. 234-248). Cham: Springer Nature Switzerland.
- Gentile, D. A., & Gentile, J. R. (2022). *Learning from video games (and Everything Else): The general learning model*. Cambridge, United Kingdom: Cambridge University Press.
- Grohol, J. M. (1999). Too much time online: Internet addiction or healthy social interactions? *CyberPsychology & Behavior, 2*(5), 395-401. <https://doi.org/10.1089/cpb.1999.2.395>
- Hornor, G. (2020). Online sexual solicitation of children and adolescents. *Journal of Pediatric Health Care, 34*(6), 610-618. <https://doi.org/10.1016/j.pedhc.2020.05.008>
- Jessor, R. (2014). Chapter 23: Problem behavior theory. A half-century of research on adolescent behavior and development. In R. M. Lerner, A. C. Petersen, R. K. Silbereisen, & J. Brooks Gunn (Eds.), *The developmental science of adolescence: History through autobiography*. In (pp. 239–256). New York: Psychology Press.
- Kowalski, R. M., & Limber, S. P. (2007). Electronic bullying among middle school students. *Journal of Adolescent Health, 41*(6), S22-S30. <https://doi.org/10.1016/j.jadohealth.2007.08.017>
- Låftman, S. B., Modin, B., & Östberg, V. (2013). Cyberbullying and subjective health: A large-scale study of students in Stockholm, Sweden. *Children and Youth Services Review, 35*(1), 112-119. <https://doi.org/10.1016/j.childyouth.2012.10.020>
- Larzabal-Fernández, A., Ramos-Noboa, M. I., & Hong Hong, A. E. (2019). Cyberbullying and its relationship with perceived stress in high school students-A case of study in the Province of Tungurahua. *Ciencias Psicológicas, 13*(1), 150-157.
- Lee, E. B. (2017). Cyberbullying: Prevalence and predictors among African American young adults. *Journal of Black Studies, 48*(1), 57-73. <https://doi.org/10.1177/0021934716678393>
- Liu, Y., Yuan, H., Song, C., Li, L., Zhou, W., & Wang, W. (2023). Symptom relationships between internet addiction and anxiety across primary and middle school students during the Omicron lockdown. *Journal of Affective Disorders, 329*, 251-256. <https://doi.org/10.1016/j.jad.2023.02.074>
- Mwansa, G., Ngandu, R., & Khala, O. (2023). Cyberbullying prevalence at a rural based university in the Eastern Cape, South Africa. *International Journal of Social Science Research and Review, 6*(12), 361-386. <https://doi.org/10.47814/ijssrr.v7i1.1783>
- Ogunkuade, I. M., & Kenku, A. A. (2023). Empirical assessment of cyberbullying, associated factors and behaviours among internet users in Abuja, Nigeria. *African Journal of Humanities and Contemporary Education Research, 11*(1), 154-174.
- Olasanmi, O. O., Agbaje, Y. T., & Adeyemi, M. O. (2020). Prevalence and prevention strategies of cyberbullying among Nigerian students. *Open Journal of Applied Sciences, 10*(6), 351-363. <https://doi.org/10.4236/ojapps.2020.106026>
- Opakunle, T., Opakunle, O., Toki, D., Aloba, O., & Nwozo, C. (2022). Drug abuse among Nigerian high-school adolescents: Exploring the relationship with problematic internet use, suicidality, anxiety, depression, and self-esteem. *International Journal of Medicine and Health Development, 27*(3), 277-284. [https://doi.org/10.4103/ijmh.ijmh\\_17\\_22](https://doi.org/10.4103/ijmh.ijmh_17_22)
- Özgür, H. (2016). The relationship between Internet parenting styles and Internet usage of children and adolescents. *Computers in Human Behavior, 60*, 411-424. <https://doi.org/10.1016/j.chb.2016.02.081>



- Radebe, F., & Kyobe, M. (2021). The response of social crime prevention police to cyberbullying perpetrated by youth in rural areas of South Africa. *International Journal of Environmental Research and Public Health*, 18(24), 13421. <https://doi.org/10.3390/ijerph182413421>
- Rigby, K. (2013). Opinion: bullying in schools and its relation to parenting and family life. *Family Matters*, 92, 61–67.
- Salazar, M., Raj, A., Silverman, J. G., Rusch, M. L., & Reed, E. (2023). Cyber sexual harassment among adolescent girls: A qualitative analysis. *Adolescents*, 3(1), 84-91. <https://doi.org/10.3390/adolescents3010007>
- Saritzky, M., & Connolly, M. (2009). *Is social networking changing childhood?* | *Common Sense Media*. 2009. Retrieved from <https://www.common Sense Media.org/press-releases/is-social-networking-changing-childhood>
- Sawyer, S. M., Azzopardi, P. S., Wickremarathne, D., & Patton, G. C. (2018). The age of adolescence. *The Lancet Child & Adolescent Health*, 2(3), 223-228.
- Slonje, R., & Smith, P. K. (2008). Cyberbullying: Another main type of bullying? *Scandinavian Journal of Psychology*, 49(2), 147-154. <https://doi.org/10.1111/j.1467-9450.2007.00611.x>
- Sorrentino, A., Baldry, A. C., Farrington, D. P., & Blaya, C. (2019). Epidemiology of cyberbullying across Europe: Differences between countries and genders. *Educational Sciences: Theory and Practice*, 19(2), 74-91. <https://doi.org/10.12738/estp.2019.2.005>
- Sriati, A., Lukman, M., & Agustina, H. S. (2022). Relation of academic stress levels and internet addiction in adolescents: A cross-sectional study. *Malaysian Journal of Medicine & Health Sciences*, 18, 110-114.
- Tarapdar, S., & Kellett, M. (2011). *Young people's voices on cyberbullying: What can age comparisons tell us?* London: Diana Award.
- Tauna, A. (2022). *Arewa consultative forum (ACF): Laments school, bullying and killings in schools*. Lagos: Daily Posts.
- UNICEF. (2017). *The state of the world's children 2017: Children in a digital world*. Retrieved from <https://www.unicef.org/media/48601/file>
- Van Ouytsel, J., Ponnet, K., Walrave, M., & Temple, J. (2016). Adolescent cyber dating abuse victimization and its associations with substance use, and sexual behaviors. *Public Health*, 135, 147-151. <https://doi.org/10.1016/j.puhe.2016.02.011>
- Vandebosch, H., & Van Cleemput, K. (2008). Defining cyberbullying: A qualitative research into the perceptions of youngsters. *CyberPsychology & Behavior*, 11(4), 499-503. <https://doi.org/10.1089/cpb.2007.0042>
- Wang, C.-W., Ho, R. T., Chan, C. L., & Tse, S. (2015). Exploring personality characteristics of Chinese adolescents with internet-related addictive behaviors: Trait differences for gaming addiction and social networking addiction. *Addictive Behaviors*, 42, 32-35. <https://doi.org/10.1016/j.addbeh.2014.10.039>
- Weinstein, E. C., & Selman, R. L. (2016). Digital stress: Adolescents' personal accounts. *new media & society*, 18(3), 391-409. <https://doi.org/10.1177/1461444814543989>
- Williams, K. R., & Guerra, N. G. (2007). Prevalence and predictors of internet bullying. *Journal of Adolescent Health*, 41(6), S14-S21. <https://doi.org/10.1016/j.jadohealth.2007.08.018>
- Xu, Y., & Trzaskawka, P. (2021). Towards descriptive adequacy of cyberbullying: Interdisciplinary studies on features, cases and legislative concerns of cyberbullying. *International Journal for the Semiotics of Law*, 34(4), 929-943. <https://doi.org/10.1007/s11196-021-09856-4>