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# Well-being and the Experience of Cyber Intimidation, Cyber Victimization and Pathological Internet Use

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Abstract: Challenges relating to misuse and abuse of the internet and other mobile devices have become sources of concern among the youth population the world-over. However, research on cyber related issues has been focused mainly on adolescents in Nigeria. This study investigates the influence of cyber bullying, cyber victimization and pathological internet use on psychological well-being among adults. Using a cross sectional research design and a multi-stage sampling technique, 280 university students were selected. A questionnaire on socio-demographic profile cyber intimidation and internet addiction was administered to the participants. Data were analyzed using descriptive statistics and t-test analysis at 0.05 level of significance. Three hypotheses were tested. The results revealed that participants who engage less in cyber bullying were not significantly different in their levels of psychological well-being when compared to their counterparts who engage more in cyber-bullying. Pathological Internet use did not significantly influence the levels of psychological well-being of cyber space addicts. The association between cyber related variables and psychological well-being is crucial for better understanding of their actual effects on human behaviour and for the purpose of designing intervention programmes.

**Keywords:** Cyber intimidation, cyber victimization, pathological internet use, wellbeing.

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# Introduction

Psychological well-being (PWB) is a subjective term that has been conceptualized differently by various authors. PWB implies an individual's happiness, quality of life, welfare, advantage, interest, and utility (Burris et al., 2009). It refers to when people's lives are progressing according to plan and they are feeling good and functioning well at the same time (Huppert, 2009). The World Health Organization associated the concept of PWB with life satisfaction (WHO, 2016) while others associated it with affect, happiness, adjustment and subjective well-being (Khanbani et al., 2014). The levels of PWB of individuals depend on their abilities to function in certain aspects of life. Based on the dimensions of the PWB scale, individuals who posses a high-level of PWB are expected to maintain a positive relationship with others, dominate their environments, accept themselves for whom they are, have objectives and meanings in life, have self-guided improvement and be able to make their personal resolutions. Therefore, PWB is important for adults to maintain a healthy life and a significant aspect of their lives during the school years (Molina-Garcia et al., 2011). Given the importance of PWB to human existence, it is necessary to investigate its connection with Cyber intimidation, victimization, and pathological use of the internet among university students.

# **Literature Review**

Ryff (2014) identified six dimensions of PWB such as the ability to master one's environment, personal improvement, being independent, acceptance of oneself, having a purpose in life, and having a favourable relationship with others which are used to measure the emotional well-being of individuals. Studies have shown that individuals with high levels of well-being have a higher rate of life expectancy; they do not fall ill often but rather engage in more healthy behaviours (Ryff, 2017). Individuals with positive PWB are said to enjoy the direction their lives are going, capable of

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handling challenges, enjoy a high-level of social support and satisfaction with their professional situations (Sharma, 2014). On the other hand, a low-level of PWB is expected to have negative effects on individuals. Chao (2012) observed that students with poor PWB are more likely to be involved in substance use, having inactive lifestyle, having suicidal thoughts and experiencing dissatisfaction with life. Nielsen and Einarsen (2012) indicated that exposure to cyber bullying was associated with health and PWB.

Cyber bullying (CB) is any behaviour that is meant to repeatedly communicate unfriendly or aggressive messages through electronic or digital media for the purpose of inflicting harm or discomfort on other individuals and it could be carried out by either individuals or groups (Kowalski et al., 2014). Menesini et al. (2012) emphasized that CB is characterized by intentional harm on others and imbalance of power. Research evidence has indicated that the problem of CB is highly prevalent in many countries of the world (Machimbarrena & Garaigordobil, 2018). CB has become widespread due to the increasing use of mobile phones, the internet, and other social networks (Khan et al., 2020) and it is prevalent in many different settings. Since internet use is mostly dominated by young people in most countries of the world (WeAreSocial, 2020) the young people are therefore mostly at a high risk of experiencing CB (Ruiz, 2019). Rigby and Smith (2011) noted that bullying can occur in many places but it is common in schools, workplaces, and within the family.

Freis and Gurung (2013) asserted that CB may be worse than face to face bullying for cyber victims because there seems to be no escape for them as the damaging data or information can be kept, protected and easily shared. CB, therefore, enables the bully to harass the victim openly and privately. Open harassment is done through the internet and private harassment is through text messages (Palmeri, 2013). Cyberbullies have constant access to their victims in terms of being regularly connected to them through the internet and in some cases, their identities are not known (Kowalski et al., 2014). Therefore, the difficulty in avoiding bullies may make the victims feel incapable and experience power equilibrium over time (Dooley et al., 2009). CB has become a source of concern because it has been associated with serious physical and psychological effects on adolescents (Bottino et al., 2015). CB has been linked to an increased danger of depression among student participants (Tran et al., 2020). Young people who experienced CB also reported poor mental health (Spears et al., 2015). Furthermore, the experience of CB led to posttraumatic stress disorder among adolescents (Ranney et al., 2016). Therefore, exposure to CB has been linked to a significantly low-level of subjective well-being or satisfaction with life (Shaw et al., 2019). The prevalence level and the negative consequences of CB on victims' well-being are a source of concern and it raises the need for its investigation.

The conflict theory suggests that bullying behaviour is a struggle for control or dominance between individuals at the top and those at the bottom of the social ladder. The theory maintains that conflict occurs between these two groups because those at the top want to stay there to maintain their status and power while those at the base want to come up the ladder. The struggle for supremacy may lead to bullying. The bullies in the upper group may resort to bullying the individuals in the lower group. This is because those at the top will take measures to ensure they increase their ranking in order to remain at the top. Therefore, CB takes place as a result of the social contention and power distance between the upper and lower groups that are not resolved. Hutchinson (2011) indicated that bullying is about inequality, power imbalance, and oppression from the perspective of conflict theory. Hogh et al. (2011) concluded that CB can have devastating consequences on cyber victims' health and well-being. Similarly, Mesch (2009) posited that CB endangers the fitness and psychological health of children. It can result in major psychological pain that can lead to low self-esteem on the part of students. It can also lead to poor self-concept and make students become less active in relating to their environment (Sourander et al., 2010). The negative consequences of bullying may continue to hunt the victims for a long period of time, even after the bullying act has stopped (Bonde et al., 2016).

Cyber victimization (CV) and CB are closely related concepts. Cyberbullies are those who carry out the act of bullying while the recipients of the bullying are the cyber victims. CV refers to a condition in which people experience harassment, humiliation, embarrassment or intimidation through information and communication technologies by another person. CV has been related to the low-levels of PWB. Kowalski et al. (2014) posited that cyber victim students tend to experience anxiety, low self-esteem, health problems, absence from school, and lower grades. Soler et al. (2013) have asserted that cyber victims experience psychological issues such as being stressed, being fearful, being anxious, frustrated, having low self-esteem, feeling depressed, having suicidal thoughts, being helpless, being irritable, having sleep disorders, performing poorly academically, and so on. Victims tend to have negative opinions about themselves regarding whether their colleagues perceive them as skillful, competent or accepted (Hawker & Boulton, 2000). Victims of CV are also known to have difficulties with psychosocial adjustment (Gamez-Guadix et al., 2013; Landstedt & Persson, 2014).

PWB has also been associated with internet or cyberspace addiction. The internet has been defined as the communication of several millions of computers the world over in one network (Joanna et al., 2014). To be addicted to the Internet according to the Diagnostic and Statistical Manual of Mental Disorder (DSM IV), is to experience a very strong desire or urge for using the internet (Block, 2008). Internet addiction is known by different terms. It could be referred to as high internet dependency, pathological internet use, online addiction, net addiction, problematic internet use, internet-addicted disorder, cyberspace addiction, and so on (Moreno et al., 2013; Rosen, 2012). Internet addiction

is characterized by dependency, which is defined by factors such as inability to control usage, discontinuation of usage disorder, unplanned and spontaneous usage (Mercy et al., 2015).

The internet provides extensive educational material at all levels and since undergraduates are more interested in educational materials, they use the Internet more often than other groups (Arun, 2015; Gunuc & Dogan, 2013). Adomi (2008) suggested that students, especially university undergraduates make use of the internet for research purposes. The internet has therefore been most beneficial to students and other users. Roy (2009) indicated that Internet users are able to develop themselves, able to exchange information with others worldwide, they are well exposed to a variety of things, they are able to relax from stress, and able to use their free time well. However, Niemz et al. (2005) suggested that pathological internet use is common among students in universities compared to other groups of people. This is partly because university students benefit a lot from its usage. Apart from the fact that the internet helps them in their daily academic pursuit, the internet also promotes youths interplay through social networking, instant messaging and other internet platforms. Research evidence has indicated that some students experience problematic internet use through sites such as Instagram, Twitter, Facebook and so on. Studies have also revealed that students suffer online addiction because of email messages, blog sites, pornography, shopping online, etc. (Masters, 2015; Turel & Serenko, 2010).

The defective consequences of pathological internet use on young people are well documented. Joanna et al. (2014) have observed that internet addiction (IA) is not only harmful to academic achievements but also injurious to students' physical and emotional stability. It may have a damaging outcome on younger people's identity formation and brain development which may result in poor mental, interpersonal, dietary, and academic performance. It may also lead students to engage in risky and self-harm behaviours (Kuss & Griffiths, 2012; Weng, 2013). IA has been associated with both mental and physical symptoms. Addicted individuals could also experience serious back pain, headaches and increased body weight (Sredniawa et al., 2015). IA has been known to negatively affect the eye and increase sleep disorders among internet-addicted youths (Balhara et al., 2018). Addiction to the Internet has been linked to decreased physical activity (Khan et al., 2017). Other research evidence has suggested that IA is highly correlated with social isolation (Shirasaka et al., 2016) body aches, increased body weight (Sredniawa et al., 2015) and sleep problems (Chen & Gau, 2016). Cheng and Yee-lam (2014) indicated that IA is negatively related to an individual's quality of life.

Research on online bullying and pathological internet use have mainly been conducted among adolescents and school children (Dooley et al., 2009\_; Forssell, 2016) This study investigates the influence of CB, CV and IA on PWB among university undergraduates. The outcome of this study is expected to contribute to knowledge in terms of the relationship between the variables of the study. Three hypotheses were tested:

- 1. Participants who score low on CB scale will report higher levels of PWB than those who score high on CB scale.
- 2. Participants who score low on CV scale will report higher levels of PWB than those who score high on CV scale.
- 3. Participants who score low on IA scale will report higher levels of PWB than participants who score high on IA scale.

# Methodology

Cross sectional research design was used to examine the influence of cyber bullying, cyber victimization and internet addiction on psychological well-being. Multistage sampling technique was adopted for selecting the participants for the study. Simple random sampling technique was used at the initial stage to select faculties, departments and lecture rooms from which the participants were drawn. Convenience sampling method was then used to select individual participants. Sample size calculation was done, which led to the selection of 280 students. Participants' ages ranged between 14 to 33 years. One hundred and thirty four (47.9%) of the participants were male while 146(52.1%) were female. Seventy three (26.1%) of the participants were in 100 level, 53(18.9%) of them were in 200 level, 108(38.6%) of them were in 300 level, 43(15.4%) of them were in 400 level and 3(1.1%) of the participants were in 500 level. Regarding participants' academic institutions, 108(38.6%) of them were selected at Lead City University, and 172(61.4%) of them were selected at the University of Lagos.

# Measures

Section A of the questionnaire taps information such as participants name, age, academic level, institution of learning, department, ownership or assets to mobile phones or computers, assess to internet connection etc.

PWB was measured by PWB scale developed by Ryff (1989). It is a six dimensional scale with each dimension containing 7 items. The dimensions include positive relations with others, purposes of life, self-acceptance, autonomy, environmental dominance and personal development. The Cronbach's alpha for each factor includes; Environmental dominance .90, purpose of life .90, personal development .87, self-acceptance .93, positive relations with others .91, and autonomy .86. The test-retest reliability coefficient was between .81 and .88 for the six factors. The Cronbach's alpha recorded for the 42 items on the scale was .85. In scoring, some items were reversed scored.

CB was assessed with the Revised CB Inventory developed by Topcu and Erdur-Baker (2010). The scale is two parallel forms of questions which measures CB and CV with 14 items each. Respondents rated their responses on a four point Likert type scale for each item twice for the two variables. The Cronbach's alpha reported was .92 for CB and .80 for CV (Erdur-Baker & Kavsut, 2007).

IA was assessed with IA Test developed by Young (1996). The test according to the author was developed on the basis of the Diagnostic and Statistical Manual of Mental Disorders 4<sup>th</sup> Edition criteria (DSM-IV). The instrument is one of the most widely accepted diagnostic instruments for pathological internet use. It is a 20-item scale that assesses the various degrees of online addiction such as mild, moderate, and severe levels. It is a six-point Likert form scale with a response format of does not apply=0; Rarely=1, occasionally=2, frequently=3, often=4, always=5. The scale measures the extent to which using the internet interferes with users' daily activities, their sleeping hours, their level of productivity, general social life, and their feelings. Sample items include: How often do others in your life complain to you about the amount of time you spend online? How often do you lose sleep due to late-night log-ins? Cronbach's alpha of 0.90 was reported by the author and a Cronbach's Alpha of .88 was obtained in this study. Scores above the mean indicate that the respondents are addicted to the internet and vice versa.

# Inclusion/Exclusion Criteria

This study includes all participants who gave their consents to be part of the study regardless of their gender, age, religious affiliations, the socio-economic status of their parents and course of study. However, participants who do not have access to mobile phones, computer systems or the internet on a regular basis were excluded.

## **Analysis**

All the stated hypotheses were analyzed with t-test of independent measures to compare participants who scored high and low on the independent variables of interest. The t-test is an inferential statistic used for determining whether a significant difference exists between the means of two groups of participants.

#### Reculte

It is hypothesized that participants who score low on CB scale will report higher PWB than those who score high on CB scale. This hypothesis was tested using a t-test of independent analysis.

Table 1: Summary Showing the Difference Between Participants' Scores on Cyber Bullying Scale in Relation to Psychological Well-being

Cyber Bullying	N	Mean	SD	Df	t	р
Low	159	181.68	23.47			
				278	.574	>.05
High	121	180.00	24.84			

The table above indicates that there is an insignificant difference between participants' engagement in CB and PWB [t (278) = .574, p>.05]. Participants who score high on CB [X = 180.00, SD= 24.44] were not significantly different from those who score low on CB [X = 181.68, SD= 23.47] on PWB scale. This result shows that CB does not influence the level of PWB. Participants' level of PWB does not change regardless of whether they score high or low on CB scale.

Results from table 1 show that there was no significant difference between undergraduates that scored low on cyber bullying and undergraduates that scored high on cyber bullying (t= .574; df = 278; p>.05). A further observation of means revealed that undergraduates that scored low on cyber bullying (X=181.68; SD=23.47) slightly scored higher on psychological well-being compared to undergraduates that scored high on cyber bullying (X=180.00; SD=24.84). Consequently, hypothesis one was not confirmed.

Hypothesis two stated that participants who score low on CV scale will report higher PWB than those who score high on CV scale. This hypothesis was tested using a t-test of independent analysis.

Table 2: Summary Showing the Difference Between Participants' Scores on CB Scale in Relation to PWB.

Cyber victimization	N	Mean	SD	Df	t	p
Low	160	180.90	23.59			
				278	043	>.05
High	120	181.03	24.74			

The table above indicates that there is an insignificant difference between participants' experience in CV and PWB [t (278) = -.043, p>.05]. Participants who suffer high level of CV [ $\bar{x}$ = 181.03, SD= 24.74] were not significantly different from those who experience a low amount of CV [ $\bar{x}$ = 180.90, SD= 23.59] on PWB. This result shows that CV does not

influence the level of PWB. Participants' level of PWB does not change regardless of whether they score high or low on CV scale.

Results from table 2 demonstrate that there was no significant difference between undergraduates that scored low on cyber victimization and undergraduates that scored high on cyber victimization (t= -.043; df = 278; p>.05). However, a further observation of means revealed that undergraduates that scored high on cyber victimization (X=181.03; SD=24.74) slightly scored higher on psychological well-being compared to undergraduates that scored low on cyber victimization (X=180.90; SD=23.59). Consequently, hypothesis two was rejected.

Lastly, it was hypothesized that participants who score low on IA will report higher PWB than those who score high on IA scale. This hypothesis was tested using a t-test of independent analysis.

Table 3: Summary showing the difference between undergraduates' scores on IA scale in relation to PWB

Internet Addiction	N	Mean	SD	Df	t	p
Low	106	179.83	24.26			
				123	-1.337	>.05
High	19	187.89	24.19			

The table above indicates that there is an insignificant difference between participants scores on IA and PWB [t (123) = -1.337, p>.05]. Participants who were highly addicted to internet use [x̄= 187.89, SD= 123] were not significantly different from those who report a low amount of IA [ $\bar{x}$ = 179.83, SD= 24.26] on PWB. This result shows that IA does not influence the level of PWB. Participants' level of PWB does not change regardless of whether they score high or low on IA scale.

Results from table 3 reveal that there was no significant difference between undergraduates that scored low on internet addiction and undergraduates that scored high on internet addiction (t= -1.337; df = 123; p>.05). However, the further observation of means revealed that undergraduates that scored high on internet addiction (X=187.89; SD=24.19) slightly scored higher on psychological well-being compared to undergraduates that score low on internet addiction (X=179.83; SD=24.26). Consequently, hypothesis three was rejected.

# Discussion

It was hypothesized that participants who scored low on CB scale would score higher on PWB scale than participants who score high on CB scale. The findings revealed that this hypothesis was not supported. This implies that university undergraduates who reported low involvement in CB did not express significantly better levels of PWB than their colleagues who engaged more in CB. This outcome is contrary to the findings of the previous studies who reported that young people's exposure to CB was associated with substance use, depression, and other psychological disorders (Fahy et al., 2016; Yoon et al., 2019). It invalidates the conclusion of Mallik (2020) who found that the experience of CB was associated with high rates of suffering from psychiatric disorders. It is not in agreement with the submissions that suggested that CB may damage the physical and psychological health of victims compared with non-victims (Ranney et al., 2016; Spears et al., 2015). It is also not in line with Shetgiri et al. (2012) who asserted that CB negatively affected the PWB as well as the psychosocial functioning of cyber victims.

Various factors may be responsible for these findings. Participants who engaged more in CB may not report significantly different levels of PWB compared to their counterparts who engaged less in CB for many reasons. One, the non-significant difference may be due to the various perceptions about the negative impact of CB on well-being or it may be due to age differences among the different participants of the study (Fahy et al., 2016; Nixon, 2014). The point about perception is supported by Agatston et al. (2007) who found that male teenagers in the United States reported that CB was not a serious problem. Therefore, if participants perceive CB as a minor issue, then it would not affect their levels of well-being. Two, psychological resilience on the part of the participants may explain the non-significant result. Studies have revealed that young people who have psychological resilience will be able to withstand the negative impact of bullying and its emotional effects (Brighi et al., 2019).

Three, having a good relationship or attachment to the family may help participants cope with the effects of CB. Some researchers have suggested that family dinners could moderate the relationship between CB and mental health problems (Elgar et al., 2014). Lastly, youths who are well connected to their schools and are friendly with their parents are usually protected against the negative effects of CB and consequently, the experience of poor PWB. In support of the above, Booker et al. (2018) have confirmed that positive PWB is associated with happiness with friends, family, appearance, school, school work, life as a whole and the ability to cope with emotional and behavioral problems. As a result, the association between CB and PWB may not be significant.

The second hypothesis stated that participants who score low on CV scale will report higher levels of PWB than participants who score high on CV scale. This hypothesis was not confirmed. The result indicates no statistically significant difference between undergraduates who scored low on CV and those that scored high on CV. This outcome was not confirmed by previous empirical studies that revealed a correlation between CV and depression among young students (Bottino et al., 2015). It is also not in agreement with the assertion of Palermiti et al. (2017) who averred that CV was associated with social, physical and psychological problems. This outcome may however be justified by many reasons. Berne et al. (2013) noted that the contrary outcome may be due to the complex nature of the concept of CV. The complex nature of the term has made it difficult to define and therefore made it possible for researchers to give it different meanings in different studies which have made its grouping become almost outdated on the basis of the introduction of new innovations. Further, Garaigordobil (2015) suggested that cyber victims tend to use various conflict resolution strategies and these strategies may explain why cyber victims may report greater PWB.

Also, young people's use of the internet is influenced by many people in their lives (Van Den Eijnden et al., 2010) who one way or the other, help to reduce the experience of CV on them. These people include parents, teachers, friends etc. Parental protective strategies include passive, active, restrictive, and all-round mediation (Helsper et al., 2013). Navarro et al. (2013) revealed that parental protection served as a mediating factor against the experience of CV (Mesch, 2009). Chang et al. (2015) reported that adolescents who were exposed to higher parental mediation were less likely to experience CB. Another set of protection is provided by young people's friends. According to Parker et al. (2006), young people' friends might also help them in coping with victimization. Studies have pointed out that when adolescents are troubled by anything online, they like to consider discussing it with their associates before anybody else (Sleglova & Cerna, 2011). Livingstone et al. (2011) have shown that adolescents have confirmed that their associates have assisted them regarding coping with internet related issues.

Other people such as teachers and peers, are also involved in young people's digital technology usage as well. Livingstone et al., (2011) submitted that teachers have intervened actively in young people's internet usage and helped them when something bothered them online. Kim et al. (2012) and Thorsteinsson et al. (2013) therefore concluded that since young people could approach their teachers when they feel troubled by something online, teachers' intervention could help to lessen the challenges of psychosocial adjustment related to CB, especially because of the impact of social support which has been known for coping effectively with challenges. In addition, the closeness between students and the school was identified as a moderator to reduce the association between CB and suicide (Kim et al., 2019). In line with the above assertion, Patalay and Fitzsimons (2018) have argued that PWB is positively correlated with satisfaction with various aspects of life such as school, family, friends, school work, cognitive ability, appearance and life as a whole, and negatively correlated with lower family income, poor relationship with parents and lower school connectedness.

Further, the level of intelligence of victims also play an important role. Baroncelli and Ciucci (2014) have reported that younger people with higher levels of emotional intelligence are more likely to experience positive social relationships, better coping strategies and better psychological adjustment than their counterparts who possess lower emotional intelligence. These researchers argued that emotional intelligence is capable of reducing the negative effects of CB and victimization and therefore the emotional intelligence of participants may have played an important role in their psychological adjustment to their experience of victimization. Davis and Humphrey (2012) have indicated that emotional intelligence is a factor that is capable of protecting young people from the damaging impact of CB and CV as it might lessen the problem of mental health by enhancing favourable methods of surviving. Similarly, Elipe et al. (2015) have revealed that, possessing emotional intelligence moderated the association between CB, CV and PWB among university students. The above may have served as a confounding factor in explaining the result.

Finally, it was hypothesized that participants who score low on IA scale would report higher levels of PWB than participants who score high on IA scale. The results indicate that there was no significant difference between undergraduates who scored low and those who scored high on IA scale. This result is contrary to the claims made by previous studies that Individuals who are addicted to the internet may report defective mental health, suicidal thoughts, depression, and anxiety (Kim et al., 2018). Waldo (2014) noted that an increase in IA, decreases the dimensions of well-being and Çardaks (2013) observed that students who experience IA are more likely to experience negative PWB.

However, the non-significant result may be due to the fact that the use of the internet and other online facilities is associated with both advantages and disadvantages (Langos, 2012; Subrahmanyam & Smahel, 2011). Some of the positive impacts of IA include providing users with information, worldwide communication, reading improvement, research promotion, working with other people from different countries, information processing etc. Roy (2009) found that heavy Internet users have the advantage of advancing themselves, being exposed to varieties, being open to different ideas, having the ability to relax, ability to use their spare time online, have access to knowledge and exchange of information. The use of the Internet is also helpful in the lives of young adults who fall within the working class. According to Kim (2008), being addicted to anything that provides knowledge is more positive rather than negative. Orhan and Nadir (2017) indicated that students addicted to the internet were found to be significantly more successful in one out of three courses than those who were not addicted. Lambic (2016) reported that heavy internet use showed a significant positive association with higher school performance among the participants who use the internet for academic purposes compared to those who did not use the internet for school-related activities. Therefore, it can be assumed that undergraduates who are involved in heavy use of the internet and reported positive PWB in this study, could have depended on the internet for academic-related information, and the progress they may have been

experiencing in their academic performance over time, may be responsible for their increased PWB. It has been argued that many existing research identified a negative correlation between better school performance and internet addiction because they did not distinguish between internet use for educational purpose and internet use for general purpose (Yang et al., 2014; Sinclair et al., 2016). Further, some people get addicted to the internet in order cope with persistent problems. It is a psychological escape technique in which victims spend more time on the internet playing games to avoid problems that create emotional distress (Mihajlov & Vejmelka, 2017).

The labeling theory has provided an explanation of some of the antisocial behaviours that individuals exhibit. The theory suggests that individuals' negative behaviours such as CB and IA are perceived as socially unacceptable by people only because the society labels them as such. This implies that the labels that individuals are given influence their perception as well as other people's perceptions of them and this makes their behaviour unacceptable. This implies that an individual's behaviour in itself may not be bad but it is considered bad because the society tags it as bad. Consequently, the labeled individuals begin to live up to their labels. Therefore, given the numerous coping mechanisms available to victims and the benefits of internet-related negative behaviours, they may just be the perception of the society rather than being capable of negatively affecting the psychological well-being of those involved.

### Conclusion

The findings of this study have highlighted the importance of psychological well-being to human existence and that factors such as cyber bullying, cyber victimization and internet addiction are capable of influencing it both positively and negatively. The study has revealed that the psychological well-being of some victims of bullying and internet addiction may not be significantly affected by their experience, therefore it is suggested that participants' experience of internet-related abuses should be considered in relation to victims' perceptions of the incidents and their ability to cope or the types of coping mechanisms available to them in investigating their levels of psychological well-being.

# Recommendations

Even though the findings of this study suggest that some victims of bullying and internet addiction may not be psychologically affected by their experience, It should be noted that bullying in any form should be discouraged. It is recommended that all the highlighted coping mechanisms that could help victims overcome the negative consequences of internet-related challenges should be incorporated in counseling students and all young people battling with the consequences of internet-related problems. The results have implications for emphasis on the assessment of cyber bullying and internet addiction in various tertiary institutions across the nation and possible intervention programmes. In order to alleviate bullying and internet addiction among our youths, there is need for adequate education on the defective outcomes of these variables so as not to make them vulnerable to these abuses. Laws and policies aimed at eradicating of internet bullying and victimization should be formulated and all related acts in the society should be publicly condemned. The staff members of universities should ensure that any negative act relating to the internet on campus is reported and well punished.

# Limitations

Given the sensitive nature of bullying behaviour in the society, one major limitation of the current study would be the use of self-report measures which may be subjected to social desirability. Therefore, future studies may consider a longitudinal or quasi-experimental design in order to establish a causal relationship. Future studies may also consider a qualitative method of research in order to obtain participants' personal experiences of bullying behaviour. Also, other researchers may consider the inclusion of moderating and mediating variables in order to understand the indirect connection among these variables.

# **Author Contribution Statement:**

Mayungbo: Methodology and analysis. Akingbade: Literature review and measures. Ogunsanya: Involved in data collection.

# References

Adomi, E. E. (2008). *Collection development and management*. Benin City.

Agatston, P. W., Kowalski, R., & Limber, S. (2007). Students' perspectives on cyber bullying. Journal of Adolescent Health, 41(6), 59-60. https://doi.org/10.1016/j.jadohealth.2007.09.003

Arun, V. P. (2015). Internet addiction and associated factors: A study among college students in South India. Innovative Journal of Medical and Health Science, 5(3), 121-125. https://bit.ly/3z6scsA

Balhara, Y. P. S., Mahapatra, A., Sharma, P., & Bhargava, R. (2018). Problematic internet use among students in South-East Asia: Current state of evidence. *Indian Journal of Public Health, 62*(3), 197–210.

- Baroncelli, A., & Ciucci, E. (2014). Unique effects of different components of trait emotional intelligence in traditional bullying and cyberbullying. *Journal* of Adolescence, 37, 807-815. https://doi.org/10.1016/j.adolescence.2014.05.009
- Block, R. (2008). Treatment outcomes with Internet addicts. CyberPsychology & Behavior, 10(5), 671-679.
- Bonde, J. P., Gullander, M., Hansen, A. M., Grynderup, M., Persson, R., Hogh, A., & Kolstad, H. A. (2016). Health correlates of workplace bullying: A 3-wave prospective follow-up study. Scandinavian Journal of Work, Environment & Health, 42(1), 17-25. https://doi.org/10.5271/sjweh.3539
- Booker, C. L., Kelly, Y. J., & Sacker, A. (2018). Gender differences in the associations between age trends of social media interaction and well-being among 10-15 year olds in the UK. BMC Public Health, 18, Article 321. https://doi.org/10.1186/s12889-018-5220-4
- Bottino, S. M. B., Bottino, C., & Regina, C. G. (2015). Cyber bullying and adolescent mental health. Systematic Review, 31, 463-475. https://doi.org/10.1590/0102-311x00036114
- Brighi, A., Mameli, C., Menin, D., Guarini, A., Carpani, F., & Slee, P. T. (2019). Coping with cyber victimization: The role of direct confrontation and resilience on adolescent wellbeing. International Journal of Environmental Research and Public Health, 16(24),48-93. https://doi.org/10.3390/ijerph16244893
- Burris, J. L., Brechting, E. H., Salsman, J., & Carlson, C. R. (2009). Factors associated with the psychological well-being university students. Journal of American distress of college health, *57*(5), https://doi.org/10.3200/JACH.57.5.536-544
- Cardaks, M. (2013). Psychological well-being and internet addiction among university students. The Turkish Online *Journal of Educational Technology, 12*(3), 134-141.
- Chang, F. C., Chiu, C. H., Miao, N. F., Chen, P. H., Lee, C. M., Chiang, J. T., & Pan, Y. C. (2015). The relationship between parental mediation and Internet addiction among adolescents, and the association with cyberbullying and depression. Comprehensive psychiatry, 57, 21-28. https://doi.org/10.1016/j.comppsych.2014.11.013
- Chao, R. (2012). Managing perceived stress among college students: The roles of social support and dysfunctional coping. Journal of College Counseling, 15(1), 5-21. https://doi.org/10.1002/j.2161-1882.2012.00002.x
- Chen, Y. L., & Gau, S. S. F. (2016). Sleep problems and internet addiction among children and adolescents: A longitudinal study. Journal of Sleep Research, 25(4), 458-465. https://doi.org/10.1111/jsr.12388
- Cheng, C., & Yee-lam, L. A. (2014). Internet Addiction Prevalence and Quality of (Real) Life: A Meta-Analysis of 31 Nations Across Seven World Regions. Cyberpsychology, Behaviour, and Social Networking, 17(12), 755-760. https://doi.org/10.1089/cyber.2014.0317
- Dooley, J. J., Pyżalski, J., & Cross, D. (2009). Cyberbullying versus face-to-face bullying: A theoretical and conceptual review. Journal of Psychology, 217(4), 182-188.
- Davis, S. K., & Humphrey, N. (2012). The influence of emotional intelligence (EI) on coping and mental health in adolescence: Divergent roles for trait and ability El. Journal of Adolescence, 35, https://doi.org/10.1016/j.adolescence.2012.05.007
- Elgar, F. J., Napoletano, A., Saul, G., Dirks, M. A., Craig, W., Poteat, V. P., Holt, M., & Koenig, B. W. (2014). Cyberbullying victimization and mental health in adolescents and the moderating role of family dinners. Jama Pediatry, 168(11), 1015-22. https://doi.org/10.1001/jamapediatrics.2014.1223
- Elipe, P., Mora-Merchán, J. A., Ortega-Ruiz, R., & Casas, J. A. (2015). Perceived emotional intelligence as a moderator variable between cyber victimization and its emotional impact. Front Psychology, 6, Article 486. https://doi.org/10.3389/fpsyg.2015.00486
- Erdur-Baker, O., & Kavsut, F. (2007). Cyber bullying: A new face of peer bullying. Euroasian Journal of Educational Research, 7, 31-42,
- Fahy, A. E., Stansfeld, S. A., & Smuk, M. (2016). Longitudinal associations between cyber bullying involvement and adolescent health. Adolescent mental Journal of Health, 59(5), 502-509. https://doi.org/10.1016/j.jadohealth.2016.06.006
- Forssell, R. C. (2016). Exploring cyberbullying and face-to-face bullying in working life Prevalence, targets and expressions, Computers in Human Behavior 58, 454-460 https://doi.org/10.1016/j.chb.2016.01.003
- Freis, S. D., & Gurung, R. A. (2013). A Facebook analysis of helping behavior in online bullying. Psychology of Popular Media Culture, 2, 11-19. http://doi.org/10.1037/a0030239

- Gamez-Guadix, M., Orue, I., Smith, P. K., & Calvete, E. (2013). Longitudinal and reciprocal relations of cyberbullying with depression, substance use, and problematic Internet use among adolescents. Journal of Adolescent Health, 53, 446-452. http://doi.org/10.1016/j.jadohealth.2013.03.030
- Garaigordobil, M. (2015). Cyberbullying in adolescents and youth in the Basque Country: Prevalence of cybervictims, cyberaggressors, cyberobservers. **Journal** Youth Studies, 569-582. http://doi.org/10.1080/13676261.2014.992324
- Gunuc, S., & Dogan, A. (2013). The relationships between Turkish adolescents' Internet addiction, their perceived social and support family activities. Computer Human Behavior. 2(29), 2197-2207. https://doi.org/10.1016/j.chb.2013.04.011
- Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. Journal of Child Psychology and Psychiatry, 41(4), 441-455. https://doi.org/10.1111/1469-7610.00629
- Helsper, E. J., Kalmus, V., Hasebrink, W., Sagvari, B., & De Haan, J. (2013). Country classification: Opportunities, risks, harm and parental mediation. EU Kids Online.
- Hogh, A., Mikkelsen, E. G., & Hansen, Ä. M. (2011). Individual consequences of workplace bullying/mobbing. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), Bullying and harassment in the workplace: developments in theory, research and practice (2nd ed., pp. 107-128). CRC Press.
- Huppert, F. A. (2009). Psychological well-being: Evidence regarding its causes and consequences. Applied Psychology: Health and Well-Being, 1(2), 137-164. https://doi.org/10.1111/j.1758-0854.2009.01008.x
- Hutchinson, E. D. (2011). Dimensions of human behaviour (4th ed.). Sage Publications, Inc.
- Joanna, S., Melinda, S., Lawrence, R., & Jeanne, S. (2014). Internet and computer addiction signs, symptoms and treatment. Help Guide. https://bit.ly/3TRplvi
- Khan, F., Limbana, T., Zahid, T., Eskander, N., & Jahan, N. (2020). Traits, trends and trajectory of tween and teen cyberbullies. Cureus, 12(8), Article e9738. https://doi.org/10.7759/cureus.9738
- Khan, M. A., Shabbir, F., & Rajput, T. A. (2017). Effect of gender and physical activity on internet addiction in medical students. Pakistan Journal of Medical Sciences, 33(1), 191-194. https://doi.org/10.12669/pjms.331.11222
- Kim, J. U. (2008). The Effect of a R/T Group Counseling Program on the Internet Addiction Level and Self-Esteem of Internet Addiction University Students. International Journal of Reality Therapy, 27(2), 4-12.
- Kim, J., Suh, W., Kim, S., & Gopalan, H. (2012). Coping strategies to manage acculturative stress: Meaningful activity participation, social support, and positive emotion among Korean immigrant adolescents in the USA. International Journal of Qualitative Studies on Health and Well-Being, 7, Article 18870. http://doi.org/10.3402/qhw.v7i0.18870
- Kim, Y. J., Jang, H. M., Lee, Y., Lee, D., & Kim, D. J. (2018). Effects of internet and smartphone addictions on depression and anxiety based on propensity score matching analysis. International Journal of Environmental Research and Public Health, 15(5), Article 859. https://doi.org/10.3390/ijerph15050859
- Kim, J., Walsh, E., Pike, K., & Thompson, E. (2019). Cyberbullying and victimization and youth suicide risk: The buffering effects of school connectedness. The **Journal** of School Nursing, 35(1), 1-7. https://doi.org/10.1177/1059840518824395
- Khanbani, M., Asghar, A., & Parvar, M. G. (2014), Examining the relationship between gender and psychological wellbeing. Journal of Sociological Research, 5(1), 53-58. https://doi.org/10.5296/jsr.v5i1.5436
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. Psychological Bulletin, 140(4), 1073-1137. https://doi.org/10.1037/a0035618
- Kuss, D. J., & Griffiths, M. D. (2012). Online gaming addiction in children and adolescents: A review of empirical research. Journal of Behavioral Addictions, 1(1), 3-22. https://doi.org/10.1556/JBA.1.2012.1.1
- Lambic, D. (2016). Correlation between Facebook use for educational purposes and academic performance of students. Computers in Human Behavior, 61, 313-320. https://doi.org/10.1016/j.chb.2016.03.052
- Landstedt, E., & Persson, S. (2014). Bullying, cyberbullying, and mental health in young people. Scandinavian Journal of Public Health, 42, 393-399. http://doi.org/10.1177/1403494814525004
- Langos, C. (2012). Cyberbullying: The challenge to define. Cyber psychology, Behavior, and Social Networking, 15(6), 285-289. <a href="https://doi.org/10.1089/cyber.2011.0588">https://doi.org/10.1089/cyber.2011.0588</a>

- Livingstone, S., Haddon, L., Gorzig, A., & Olafsson, K. (2011). *Risks and safety on the Internet: The perspective of European children*. EU Kids Online.
- Machimbarrena, J. M., & Garaigordobil, M. (2018). Prevalence of bullying and Cyberbullying in the last stage of primary education in the Basque Country. *Spanish Journal Psychology*, *21*, 48-67. <a href="https://doi.org/10.1017/sip.2018.41">https://doi.org/10.1017/sip.2018.41</a>
- Mallik, C. I. (2020). Adolescent victims of cyberbullying in Bangladesh-prevalence and relationship with psychiatric disorders. *Asian Journal of Psychiatry*, 48, 101-123. <a href="https://doi.org/10.1016/j.ajp.2019.101893">https://doi.org/10.1016/j.ajp.2019.101893</a>
- Masters, K. (2015). Social networking addiction among health sciences students in Oman. *Sultan Qaboos University Medical Journal*, 15(3), 357–363. https://doi.org/10.18295/squmj.2015.15.03.009
- Menesini, E., Nocentini, A., Palladino, B., Frisen, A., Berne, S., Ortega-Ruiz, R., & Smith, P. K. (2012). Cyber Bullying Definition Among Adolescents; A Comparison Across Six European Countries. *Cyber Psychology, Behaviour and Social Networking*, *15*, 455-463. <a href="https://doi.org/10.1089/cyber.2012.0040">https://doi.org/10.1089/cyber.2012.0040</a>
- Mercy, O. N., & Oluwatosin, B. O. (2015). Internet addiction among undergraduates in University of Ibadan: Imperative for counselling intervention. *African Journal for The Psychological Studies of Social Issues*, 18(3), 1-14. <a href="https://cutt.ly/ZNGC7Th">https://cutt.ly/ZNGC7Th</a>
- Mesch, G. S. (2009). Parental mediation, online activities, and *cyberbullying*. *Cyber-Psychology & Behaviour*, *12*(4), 387-393. <a href="https://doi.org/10.1089/cpb.2009.0068">https://doi.org/10.1089/cpb.2009.0068</a>
- Mihajlov, M., & Vejmelka, L. (2017). Internet addiction: A review of the first twenty years. *Psychiatry Danub*, 29(3), 260–272.
- Molina-Garcia, J. J., Castillo, I. I., & Queralt, A. A. (2011). Leisure-time physical activity and psychological well-being in university students. *Psychological Reports*, *109*(2),453-460. <a href="https://doi.org/10.2466/06.10.13.PR0.109.5.453-460">https://doi.org/10.2466/06.10.13.PR0.109.5.453-460</a>
- Moreno, M. A., Jelenchick, L. A., & Christakis, D. A. (2013). Problematic internet use among older adolescents: A conceptual framework. *Computers and Human Behavior*, *29*, 1879–1887. <a href="https://doi.org/10.1016/j.chb.2013.01.053">https://doi.org/10.1016/j.chb.2013.01.053</a>
- Navarro, R., Serna, C., Martínez, V., & Ruiz-Oliva, R. (2013). The role of Internet use and parental mediation on cyberbullying victimization among Spanish children from rural public schools. *European Journal of Psychology of Education*, *28*, 725-745. <a href="http://doi.org/10.1007/s10212-012-0137-2">http://doi.org/10.1007/s10212-012-0137-2</a>
- Nielsen, M. B., & Einarsen, S. (2012). Outcomes of exposure to workplace bullying: A meta-analytic review. Work & Stress, 26(4), 309-332. https://doi.org/10.1080/02678373.2012.734709
- Niemz, K., Griffiths, M., & Banyard, P. (2005). Prevalence of pathological Internet use among university students and correlations with self-esteem, the General Health Questionnaire (GHQ), and disinhibition. *CyberPsychology and Behavior*, 8(6), 562–570. <a href="https://doi.org/10.1089/cpb.2005.8.562">https://doi.org/10.1089/cpb.2005.8.562</a>
- Nixon, C. L. (2014). Current perspectives: The impact of cyber bullying on adolescent health. *Adolescent Health, Medicine and Therapeutics, 5,* 143–158. <a href="https://doi.org/10.2147/ahmt.s36456">https://doi.org/10.2147/ahmt.s36456</a>
- Orhan, I., & Nadir, C. (2017). Exploring the impact of internet addiction on academic achievement. *European Journal of Education Studies*, 3(5), 38-59.
- Palmeri, J. M. (2013). Cyberbullicide: When cyberbully victims can't escape. NYU Steinhardt Applied Psychology.
- Palermiti, A. L., Servidio, R., Bartolo, M. G., & Costabile, A. (2017). Cyberbullying and self-esteem: An Italian study. *Computers in Human Behaviour*, 69, 136–141. https://doi.org/10.1016/j.chb.2016.12.026
- Parker, J. G., Rubin, K. H., Erath, S. A., Wojslawowicz, J. C., & Buskirk, A. A. (2006). Peer relationships, child development, and adjustment: A developmental psychopathology perspective. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Theory and method* (pp. 419–493). John Wiley & Sons, Inc.
- Patalay, P., & Fitzsimons, E. (2018). Development and predictors of mental ill-health and wellbeing from childhood to adolescence. *Social psychiatry and psychiatric epidemiology*, *53*(12), 1311–1323. <a href="https://doi.org/10.1007/s00127-018-1604-0">https://doi.org/10.1007/s00127-018-1604-0</a>
- Ranney, M. L., Patena, J. V., Nugent, N., Spirito, A., Boyer, E., Zatzick, D., & Cunningham, R. (2016). PTSD, cyberbullying and peer violence: Prevalence and correlates among adolescent emergency department patients. *General Hospital Psychiatry*, *39*, 32–38. <a href="https://doi.org/10.1016/j.genhosppsych.2015.12.002">https://doi.org/10.1016/j.genhosppsych.2015.12.002</a>
- Rigby, K., & Smith, P. K. (2011). Is school bullying really on the rise? *Social Psychological Education,* (14), 4412-4415. https://doi.org/10.1007/s11218-011-9158-y

- Rosen, L. D. (2012). iDisorder: Understanding our obsession with technology and overcoming its hold on us. Palgrave Macmillan.
- Roy, S. K. (2009). Internet uses and gratifications: A survey in the Indian context. *Journal of Computers in Human* Behaviour, 25(4), 878-886. https://doi.org/10.1016/j.chb.2009.03.002
- Ruiz, R. M. (2019). Curbing cyber bullying among students: A comparative analysis of existing laws among selected Asean countries. PEOPLE: International Iournal Social Sciences 4(3), 1285-1305. https://doi.org/10.20319/pijss.2019.43.12851305
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology, 57(6), 1069-1081. https://doi.org/10.1037/0022-3514.57.6.1069
- Ryff, C. D. (2014). Psychological well-being revisited: Advances in the science and practice of eudaimonia. Psychotherapy and Psychosomatics, 83, 10-28. https://doi.org/10.1159/000353263
- Ryff, C. D. (2017). Eudaimonic well-being, inequality, and health: Recent findings and future directions. International review of economics, 64(2), 159-178. https://doi.org/10.1007/s12232-017-0277-4
- Sharma, G. (2014). Effect of demographic variables on psychological well-being and quality of life. International Journal of Humanities and Social Sciences Research, 2(3), 290-298
- Shaw, R. J., Currie, D. B., Smith, G. S., Brown, J., Smith, D. J., & Inchley, J. C. (2019). Do social support and eating family meals together play a role in promoting resilience to bullying and cyberbullying in Scottish school children? SSM -Population Health, 9, Article 100485. https://doi.org/10.1016/j.ssmph.2019.100485
- Shetgiri, R., Hua, L. R., & Glen, F. (2012). Parental Characteristics Associated with Bullying Perpetration in US Children Aged 10 to 17 Years. American *Journal* Public Health, 102(12), 2280-2286. of https://doi.org/10.2105/ajph.2012.300725
- Shirasaka, T., Tateno, M., Tayama, M., Tsuneta, M., Kimura, H., & Saito, T. (2016). Survey of the relationship between internet addiction and social withdrawal. Japanese Journal of Alcohol Studies & Drug Dependence, 51(5), 275-282.
- Sinclair, P. M., Kable, A., Levett-Jones, T., & Booth, D. (2016). The effectiveness of Internetbased clinician behaviour and patient outcomes: A systematic review. International Journal of Nursing Studies, 57, 70-81. https://doi.org/10.1016/j.ijnurstu.2016.01.011
- Sleglova, V., & Cerna, A. (2011). Cyberbullying in adolescent victims: Perception and coping. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 5(2). https://cyberpsychology.eu/article/view/4248/3294
- Soler, L., Paretilla, C., Kirchner, T., & Forns, M. (2013). Impact of poly-victimization on mental health: The mediator and/or moderator sole of self-esteem. *Journal of Interpersonal* 2695-2712. http://doi.org/10.1177/0886260513487989
- Sourander, A., Brunstein-Klomek, A., Helenius, H., Ikonen, M., Lindroos, J., Luntamo, T., & Koskelainen, M. (2010). Psychosocial risk factors associated with cyberbullying among adolescents: A population-based study. Archives of General Psychiatry, 67(7), 720-728. https://doi.org/10.1001/archgenpsychiatry.2010.79
- Spears, B. A., Taddeo, C. M, Daly, A. L, Stretton, A., & Karklins, L. T. (2015). Cyberbullying, help seeking and mental health in young Australians: Implications for public health. International Journal of Public Health, 60(2), 219-226. https://doi.org/10.1007/s00038-014-0642-y
- Sredniawa, A., Jarczewska, D. L., Zabicka, K., Ulman, M., Pilarska, A., Tomasik, T., & Windak, A. (2015). Internet addiction among graduates of general secondary schools in Cracow and its correlation with body mass index and other health problems. Polish Medical Mercury: Organ of the Polish Medical Society, 39(229), 31–36.
- Subrahmanyam, K., & Smahel, D. (2011). Digital youth: The role of media in development. Springer. https://doi.org/10.1007/978-1-4419-6278-2
- Thorsteinsson, E., Ryan, S., & Sveinbjornsdottir, S. (2013). The mediating effects of social support and coping on the stress-depression relationship in rural and urban adolescents. Open Journal of Depression, 2(1), 1-6. http://doi.org/10.4236/oid.2013.21001
- Topcu, C., & Erdur-Baker, O. (2010). The revised cyber bullying inventory (RCBI): Validity and reliability studies. Procedia Social and Behavioral Sciences, 5, 660-664. https://doi.org/10.1016/j.sbspro.2010.07.161
- Tran, Q. A., Le, V., & Nguyen, T. (2020). Depressive symptoms and suicidal ideation among Vietnamese students aged 13-17: Results from a cross-sectional study throughout four geographical regions of Vietnam. Health psychology open, 7(2), 2055102920973253. https://doi.org/10.1177/2055102920973253

- Turel, O., & Serenko, A. (2010). Is mobile email addiction overlooked? *Communications of the ACM, 53*(5), 41–43. <a href="https://doi.org/10.1145/1735223.1735237">https://doi.org/10.1145/1735223.1735237</a>
- Van-Den Eijnden, R. J., Spikerman, R., Vermulst, A. A., & Engel, R. C. (2010). Compulsive internet use among adolescents: Bidirectional parent-child relationships. *Journal of Abnormal Child Psychology*, 38(1), 77-89. <a href="http://doi.org/10.1007/s10802-009-9347-8">http://doi.org/10.1007/s10802-009-9347-8</a>
- Waldo, A. D. (2014). Correlates of Internet addiction among adolescents. *Psychology*, *5*,1999-2008. <a href="https://doi.org/10.4236/psych.2014.518203">https://doi.org/10.4236/psych.2014.518203</a>
- WeAreSocial. (2020). Digitalin2020. https://doi.org/wearesocial.com/digital-2020
- Weng, C. B. (2013). Gray matter and white matter abnormalities in online game addiction. *Chinese Medical Journal*, 92(45), 3221–3223
- World Health Organization. Regional Office for Europe. (2016). *Growing up unequal: Gender and socioeconomic differences in young people's health and well-being*. World Health Organization. Regional Office for Europe. <a href="https://apps.who.int/iris/handle/10665/326320">https://apps.who.int/iris/handle/10665/326320</a>
- Yang, S. J., Stewart, R., Lee, J. Y., Kim, J. M., Kim, S. W., & Shin, I. S. (2014). Prevalence and correlates of problematic internet experiences and computer-using time: A two-year longitudinal study in Korean school children. *Psychiatry Investigation*, *11*(1), 24–31. <a href="https://doi.org/10.4306/pi.2014.11.1.24">https://doi.org/10.4306/pi.2014.11.1.24</a>
- Young, K. S. (1996). Internet Addiction: The emergence of a new clinical disorder. *CyberPsychology and Behaviour, 1*(3), 237-244. https://doi.org/10.1089/cpb.1998.1.237
- Yoon, Y., Lee, J. O., Cho, J., Bello, M. S., Khoddam, R., Riggs, N. R., & Leventhal, A. M. (2019) Association of cyberbullying involvement with subsequent substance use among adolescents. *Journal of Adolescent Health*, 65(5), 613–620. https://doi.org/10.1016/j.jadohealth.2019.05.006