CYBERBULLYING ON SOCIAL MEDIA PLATFORMS AMONG STUDENTS IN NATIONAL DEFENCE UNIVERSITY OF MALAYSIA

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ABSTRACT

The user-friendly easy accessibility of the internet and social media platforms has sparked the influx of youths to impose virtual harm upon each other. Past research on university students has outlined the negative influences of cyberbullying have seen a higher trend and forecasted more impacts on students. This research was implemented to identify the variables ie personality, internet addiction and family communication towards cyberbully in social media among students at NDUM. A total of 140 respondents were chosen and questionnaires were used in this research. The quantitative method used in this research was descriptive analysis, multiple linear regression, Pearson's Correlation analysis and the Independent Sample T-test. Study data have been analysed through Statistical Package for Social Science (SPSS) Version 25.0. The results of the data analysis indicate that personality, internet addiction, family communication have a positive significant correlation towards cyberbully. Based on the regression analysis, family communication has been identified as the most affecting factor compared with the other two independent variables.

Introduction

Cyberbullying has been described as an aggressive and intentional action that is often replicated over time, committed by a group or person using electronics and aimed at a victim who cannot easily defend himself or herself. Cyberbullying is a type of peer harassment within one or maybe more parties via electrical gadgets wanted to insult cyber victims who might have trouble protecting themselves. Various interpersonal factors, including such emotional intelligence and processes such as antisocial behaviour, are engaged in face to face and online social communication (Marin et al, 2020).

The traumatic experiences of cyberbullying on both individuals and organizations have negatives outcomes in depression, eating disorders, substance abuse, sleeping and poor academic performance (Beran & Li, 2008; Mitchell et al., 2007; Privitera & Campbell, 2009; Ybarra et al., 2007). Cyberbullying has a negative impact on student's self-esteem and occurs during the child developmental stage when adolescents are investigating with the people they want to associate with especially when social status and popularity are progressively significant (Holfeld & Mishna, 2019, p. 567).

Initial research and studies in cyberbullying has predominantly pressured the youths and increasingly moved towards the younger millennials in traditional bullying incorporated as the concrete aspect of indirect bullying. Cyberbullying has been a social problem which indulges in harassment, intimidation, bullying and uncalled aggressiveness using the digital devices as the media platform or an individual or a group (Grigg, 2010; Slonje, Smith, & Frisén, 2013; Tokunaga, 2010). The digital domain inculcated within the corridors of social media such as Facebook and Twitter have relooked and rectified policies and privacy changes to ensure safer usage on the cyber platform. However, such measures have to be constantly monitored and justified to ensure the tools and efforts on cyberbullying is safe for all users.

Cyberbullying also the utilization of electronic correspondence advancements to bully others (Kowalski et al, 2019). Cyberbullying is a forceful demonstration done by one individual or gathering with the expectation to hurt another feeling thru an individual or group using an electronic stage. The conduct must be performed more than once and after some time (Smith et al., 2008). Cyberbullying includes sending harassing or undermining messages, posting embarrassing remarks or compromising somebody on the web. The important thing about cyberbullying is to make sure the role of parent and teacher supervision in children's involvement in cyberbullying has taken a gander at where cyberbullying happens at home or at school and the effect of grown-ups endeavours to confine cyberbullying. Besides, that most cyberbullying happens outside of school (Dehua, Bolman and Vollink, 2014). Research has proposed that the accelerating occasion regularly happens at school and prompts cyberbullying at home (Cassidy, Jackson, and Brown, 2009). Relatedly, youngsters know their cyberbully, regularly from school (Juvonen and Gross, 2014). This proposes cyberbullying, although ostensibly for the most part happening out of school hours, is identified with school and may negatively affect youngsters inside a school, as they are being cyberbullied by other kids from their school.

LITERATURE REVIEW

Cyberbullying

Cyberbullying is a type of peer harassment within one or maybe more parties via electrical gadgets wanted to insult cyber victims who might have trouble protecting themselves. Various interpersonal factors, including such emotional intelligence and processes such as antisocial behaviour, are engaged in face to face and online social communication (Inmaculada et al, 2020). According to Aboujoaude, et al (2015) cyberbullying has even been referred to as electronic abuse, cyber harassment, online stalking, and electronic attack. Cyberbullying habits include non-physical attacks including teasing up dangerous ways and making negative comments to others as well as spreading false news that can offend others. According to Kowalski (2019), cyberbullying has been portrayed as a misuse of the internet's special technology and mobile phones to harm society and peers. This issue has alarmed many in the scientific and educational community. The possibilities of online bullying are improved by the increasing incidence of users between the ages. In comparison to others who surf the website several times a day or less, teens most of whom are available on the internet began to show cyberbullying almost always (Anderson, 2018). Besides, cyberbullying includes sending harassing or undermining messages, posting embarrassing remarks or compromising somebody on the web. Appraisals recommend that about 15% of young people have experienced cyberbullying exploitation (Modecki et al, 2014).

Cyberbullying was been linked to the number of web use there has been a greater probability of cyberbullying among young people who spend more time on social media (Barlet, et al 2019). Cyberbullying is almost like unexplained and actual violence or inappropriate behaviour of somebody, particularly thru all the social media websites. Cyberbullying is also known as online harassment or threats of violence. It is normally cultivated, in general youths and teens (Singh, 2016). A common concept of cyberbullying by sociology and criminology focused on how cyberbullying is an online form of face-to-face bullying. Bullying is planned violent conduct including a power inequality in the physical world (Inmaculada et al, 2020). Cyberbullying can contribute to adverse mental or physical health effects, especially negative consequences on psychiatric health-being cyberbullying was already reported as linked to depression, anxiety, stress, psychiatric issues, low self-esteem, and suicide attempts (Kowalski, 2019). Cyberbullying is a thoughtful form of discrimination that exposes juveniles to a variety of ridicule, stalking behaviours and harassment. Constant access to social networking provides more frequent opportunities for cyberbullying to occur. Cyberbully and offender are the two essential elements engaged in cyberbullying. This is a wide area wherein perpetrators who could have nearly doubled suicidal ideation, lower self-esteem, and a potential for adverse instinctive responses, such as fear, anger, frustration, and

depression, all keep lying under cyberbullying (Bagga et al 2016). Cyberbullying, as a negative or verbal communication, is harassing, aggravating or prejudicing, discloses private information or includes nasty, offensive or disgraceful comments (Chen et al, 2018).

Personality

Eksi (2012) found individuals with narcissistic personalities tend to affect other people indirectly through bullying cyber. Corcoran et al. (2016) found a significant cyberbullying victim has a higher score in neurotic levels than non-victims cyberbullying. Also, some of the characteristics of teenagers involved in cyberbullying problems are like hot-tempered, angry and frustrated person. They are also a very difficult individual to obey and will try to make their victims angry (Kowalski et al., 2019). Also found persons choose to constrain cyberbullying because they know that they will not know their identity (Carter, 2017). According to Eksi (2012) found individuals with narcissistic personalities tend to affect other people indirectly through bullying cyber. Corcoran et al. (2016) found a significant cyberbullying victim has a higher score in neurotic levels than non-victims cyberbullying. Also, some of the characteristics of teenagers involved in cyberbullying problems are like hot-tempered, angry and frustrated person. They are also a very difficult individual to obey and will try to make their victims angry (Kowalski et al, 2019)**.** A study conducted by Ang and Goh (2014) on 396 adolescents and girls find that adolescents have unstable emotions and aggressive teens are more likely to be engaged in cyberbullying. They are also involved in cyberbullying because they want attention and sympathy where they cannot feel it in everyday life (Ozden & Icellioglu, 2014). On the other hand found the selfish attitude of self-improvement enhances one's ability to engage in cyberbullying problems while being considerate of others shows results on the contrary (Malik et al, 2017). Kowalski and Limber (2016) explain the causes of problems cyberbullying is a desire to control everything, to make yourself more aggressive, getting recognition from friends, trying to reply revenge on the individual who has wronged him, at least possibility of being arrested, of trying to protect the identity and unnecessary communicate face to face.
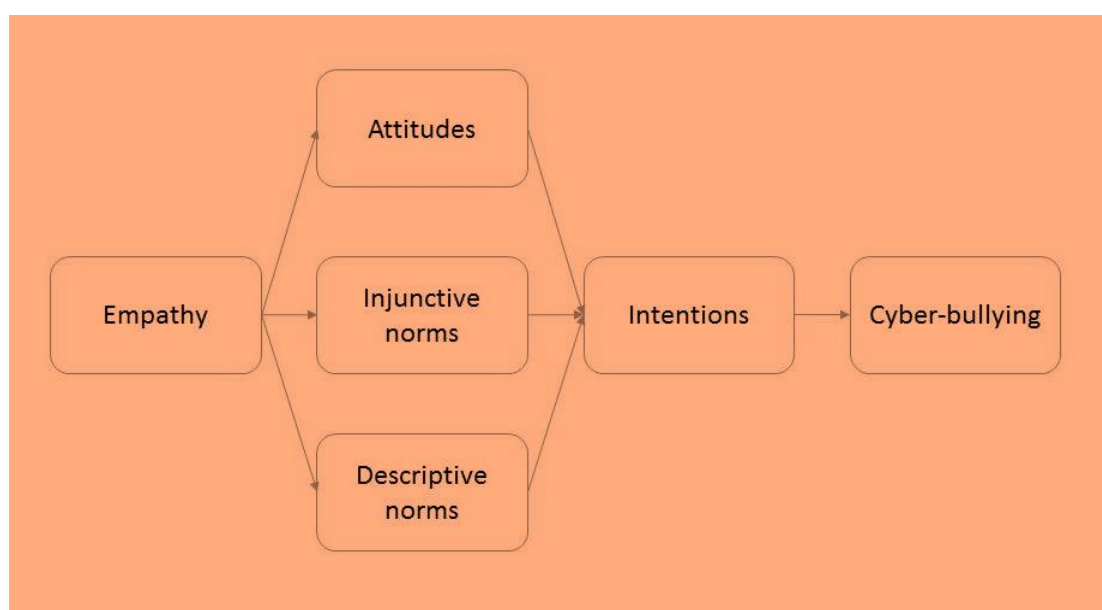
Internet Addiction

Cyberbullying is often correlated with the number of users accessing the internet. with the increase in the public consciousness, millennials, in specific, seem unable to maintain up with numerous technological devices, such as tablets, laptops, etc. There seems to be potential for internet users to choose to express all personal data for public visualization that might give risk to their safety. The wider their exposure to social media, the higher the ability of groups of people becoming victims and perpetrators of cyber-bullying (Liang et al 2016). One research of Korean college students showed that higher education performance was significantly related to internet addiction for research but adversely related to internet addiction for various purposes (Kim et al 2017). According to Eksi (2012), the more people are involved in internet addiction the more likely they are to become involved in cyberbullying or cyberbullying victims. Internet addiction seems to be an extremely important skill for teens and young adults in the modern world. While its Internet has reported in the media utility companies and advantages, research demonstrates that unrestrained and unnecessary use of the Internet has several possible effects and potential effects, such as identifying people to Internet addiction, which in turn leads to numerous psychiatric problems (Fumero et al 2018). Cankaya and Tan (2015) found that internet addiction factors lead to cyberbullying. Weber et al. (2014) explain that the use of social technology can be harmful as it is exposed to unidentified individuals, hackers, paedophiles, pornographic social sites and inappropriate websites. Carter and Wilson (2015) found that adolescents with admission to a diversity of skills could increase the risk of attractive cyberbullying or cyberbullying victims, including technology tools used without parental surveillance, such as cell phones, laptops and personal computers used in the room. Frequent use of technology tools exposes teens to bullying behaviour. His research also found that 68% of victims of bullying regularly use social sites such as MySpace, Facebook and Twitter.

Family Communication

According to Ybarra and Mitchell's (2016) study into over 1,501 boys and girls ages 10 to 17 found teens involved in cyberbullying have a low level of relationships with parents. 44% of cyberbullying victims reported they have a less emotional attachment to the caregiver compared to only 16% who said they had a relationship stable with parents. Eksi (2012) states that parental attitudes influence students' attitudes toward cyberbullying. According to Kowalski et al. (2017), good communication between parents and children is key to a closer relationship. Parents need to guide so that children are more careful and careful

not to get involved in bullying cyber. Parents should listen and be aware of children's activities in the virtual world so that children can talk more easily because of their sense of taste and trust in their parents. Instead, children choose to avoid it instead of telling parents if they are involved in cyberbullying because of the poor family environment. Fanti, Demetriou and Eve (2015) found that parents have a potential role in preventing teenagers from getting involved with cyberbullying because teenagers who have parental support are less involved with cyberbullying. Similarly, to Floros et al. (2013) states that. The strong bond between parent and child is a significant factor for parental involvement in online safety.

Doane, Pearson and Kelley (2014) focused on whether TRA can also be used to explain cyber-bullying desire and attitudes, behaviours. They estimate the degree to which TRA could be assigned to four subgroups of cyber-bullying: manipulation, malice, psychological torture, and undesirable contact. They also focused on the importance of empathy and the degree to which it was associated with the creation of the TRA (attitudes, behavioural intention and subjective norms). Researchers observed that greater support for cyber-bullying perpetrators indicated more optimistic views against cyber-bullying. Attitudes were the major factor of cyber-bullying habits and directly impacted all four forms of cyberbullying. Injunctive expectations (perception of peer approval) dramatically predict participation in malicious and unwelcome types of cyber-bullying contact. Descriptive values (peer perceptions) foresaw deceit, intent, and public embarrassment.

Fig. 1: Theory Reasoned Action (Doane, Pearson and Kelley, 2014)

Research Hypothesis

The literature review regarding personality, internet addiction and family communication and its relationship between cyberbully lead to the following hypothesis that was developed from the conceptual framework which in line with the research objective are as follows:

H1:   There is a significant linear relationship between personality (X_1) with cyberbully (Y).

H2:   There is a significant linear relationship between internet addiction (X_2) with cyberbully (Y).

H3:   There is a significant linear relationship between family communication (X_3) with cyberbully (Y).

Research Methodology

The suitability of the sampling strategy is prominent which has an impact on the quality of research which has been adopted (Cohen, Manion, and Morrison (2011). At such this for this research random sampling among the students of this university was adopted to have a sample representative of students in this environment. The methodology starts by identifying the problem and set the goals and objectives for the

study. The research design for this study is explained regarding what method to be used and the alternatives used in collecting accurate data and information. This study will utilize a cross-sectional design particularly using elucidating correlational research method. The Cross-sectional Design is used in this research and this design is guided to measure the perception of the respondent as an image of the selected populace at one point in time (Burns & Bush, 2000). The sampling technique that has been adapted for this study is the stratified sampling technique which is a type of probability sampling design (Sekaran & Bougie, Research Methods for Business: A Skill-Building Approach (6th Ed.), 2013) where it also carries the meaning of a technique used at the point when a populace is first divided into meaningful segments and in this manner the subjects are attracted extent to their unique numbers in the populace.

According to Krejcie & Morgan (1970) the sample size is 140 students from the Faculty of Defence Studies and Management from National Defence University of Malaysia with a population of 500 students

Data obtained from the survey is analysed using Statistical Package for Social Science (SPSS) Version 25.0. The descriptive and inferential statistics was used to analyse and produce the results for hypothesis testing. Inferential statistics are used to make inferences or to project characteristics from a sample to an entire population, (Zikmund, Babin, Carr, & Griffin, 2013). Two analyses were used in this study: Pearson Product-Moment Correlation Coefficients, Multiple Linear Regression and Independent Sample T-test. To identify how the variables are related to each other, several approaches are composed into one statistics tool table as shown in Table 1 below.

Table 1: The Statistic Tool Table

No	Research Objective	Statistical tools
I	To determine the relationship between personality, internet addiction, family communication with cyberbully	Pearson Product-Moment Correlation Coefficients (r)
Ii	To determine to what extent personality, internet addiction and family communication explain the variation of the factor affecting cyberbully at NDUM	Multiple Linear Regression
Iii	To compare the mean level of affecting cyberbully based on gender	Independent Sample T-Test

Research Findings

Preliminary analyses were performed to ensure no violation of the expectations of normality and linearity. Since there were three (3) bivariate pairs, Bonferroni adjusted alpha ($\alpha_{adjusted}$) of 0.0167 (0.05/3) was used to test all the hypotheses of the bivariate correlations (X_1 & Y, X_2 & Y and X_3 & Y). As portrayed in Table 2, the strongest linear relationship was found to between family communication and cyberbully ($r = .301$, $p = .0001$, $\alpha_{adjusted} = 0.0167$). The positive correlation coefficient of 0.301 indicates that as the score for family communication rises so does the rating for PMS. This result provisions the research hypothesis that there is a positive linear relationship between Family Communication (X3) and Cyberbully (Y). The second moderate was found between personality and cyberbully ($r = .267$, $p = .0001$, $\alpha_{adjusted} = 0.0167$) and the correlation coefficient (r) of 0.267 indicates that there was a high positive linear relationship between personality and cyberbully. This suggests that as the score for personality increases including the rating for cyberbully. This verdict supports the research hypothesis, H1 which there is a positive linear relationship between personality and cyberbully.

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Table 2: Zero-Order Correlations between Personality, Internet Addiction, Family Communication with Cyberbully

			Y	X₁	X₂	X₃
Y	Cyberbully	Pearson Correlation	1			
		Sig. (2-tailed)				
X₁	Personality	Pearson Correlation	.267**	1		
		Sig. (2-tailed)	.001			
X₂	Internet Addiction	Pearson Correlation	.230**	.317**	1	
		Sig. (2-tailed)	.006	.000		
X₃	Family Communication	Pearson Correlation	.301**	.494**	.791**	1
		Sig. (2-tailed)	.000	.000	.000	

** Correlation is significant at the 0.01 level; Bonferroni adjusted alpha (α adjusted) = 0.0167 (0.05/3).

Although this research was not premeditated to determine, whether, an increase in the independent variable caused an increase in the value of the dependent variable. It would seem rational to conclude that cyberbully is more likely to increase when there was an increase in personality, internet addiction, family communication and cyberbully. Thus, the findings of this analysis were summarised in Table 3 below:

Table 3: The Findings of the Relationship of Personality, Internet Addiction, Family Communication and Cyberbully

	Cyberbully	
	Magnitude of Relationship	**Coefficient (r)**
Personality	Weak	0.267
Internet Addiction	Weak	0.230
Family Communication	Moderate	0.301

In Table 3, the prime beta coefficient found was 0.216 for family communication and this parallel with the highest t-statistic of 1.481 that gives the sense of the greatest stated that in addition to the interpretation of the dependent variable (Cyberbully) made by this variable where the capable of interacting by other predictor variables in the model has been regulated. It advocates that one standard deviation increase in family communication is followed by 0.85 standard deviation increase in Cyberbully. The Beta value for Internet Addiction was the second highest (0.118). This result designates that one standard deviation increase in internet addiction is followed by 0.92 standard deviation increase in Cyberbully. The Beta value for Personality was the smallest (0.103) and indicating that it made the least contribution. It means that one standard deviation increase in personality is followed by 0.74 standard deviation increase in Cyberbully. Thus, the findings of the analysis are summarised as presented in Table 4.

Table 4: The Finding of the Extent of Personality, Internet Addiction, Family Communication Explaining the Variation of Cyberbully

Variables	Beta Coefficient	T-statistics	The extent in explaining Cyberbully
Personality	.103	1.675	Contribute and significant
Internet Addiction	.118	.066	Contribute and significant
Family Communication	.139	1.481	Contribute and significant

male and female employees are equal (F = 9.241, p = .003).

There is insignificant difference in the Cyberbully mean scores for male and female students as [t (138) = 2.303 p = .003]. The t-statistic obtained was rather higher (t = 2.303) and the corresponding p-value obtained was very much smaller (p= .003) than the alpha value of 0.05. Hence, an inspection of the two means suggests that H4, the mean of cyberbully for male and female students is equal.

Overall, the results gained based on the research objectives from the study has been showing and explained in this chapter. The discoveries had been summarized in Table 5.

Table 5: Summary of Statistical Analysis Research Objectives

No	Objectives	Hypotheses	Analysed result
1	To determine the level of personality, internet addiction and family communication.		All the variables indicated as high level.
2	To determine the relationship between personality, internet addiction, family communication with cyberbully	**H1:** There is a significant linear relationship between personality with cyberbully **H2:** There is a significant linear relationship between internet addiction with cyberbully **H3:** There is a significant linear relationship between family communication with cyberbully	**H1, H2** and **H3** are strongly supported
3	To determine to what extent of personality, internet addiction and family communication explain the variation of factors affecting cyberbully at NDUM.		All the independent variables contributed to explaining the variance of Cyberbully
4	To compare the mean level of affecting cyberbully based on gender.	**H4**: There is no difference in the mean employee satisfaction score for male and female employees	**H4:** Supported

Summary of Research Findings

Conclusion

The geometry of virtual inclination towards social media has emerged drastically in the ever fast changing of technology. Technology has been the main domain of increasing trends of youths, especially students to indulge in the virtual communications platforms which are easily accessible. This research was implemented to identify the variables ie personality, internet addiction and family communication towards cyberbullying in social media among students at NDUM.

The information assembled from this study provides the connection between character, web enslavement and family correspondence with cyberbully. In this manner, this helped the researchers to recognize the genuine variables that contributed towards cyberbully in social cultural society where errors in information assortment and examination could be limited, just as increment solid research discoveries by the outcomes picked up from this research. This research implies that each variable namely personality, internet addiction and family communication had a positive linear relationship with cyberbully. This research provides a strong indicator to conduct more research to investigate cyberbullying that is unexplored within the cloud of cultural and social factors but also other variables affecting cyberbullying such as among other variables such as anger, depression, attitude and other factors which has a relationship on cyberbullying. As proposed by this study, further qualitative research is required to assess the socio-psychological impacts of cyberbullying on victims in conservative societies especially among the youths.

References

Aboujaoude, E., Savage, M. W., Starcevic, V., & Salame, W. O. (2015). Cyberbullying: Review of an old problem gone viral. *Journal of adolescent health*, *57*(1), 10-18.

Anderson, M., & Jiang, J. (2018). Teens, social media & technology 2018. *Pew Research Center*, *31*, 2018.

Ang, R. P., & Goh, D. H. (2014). Cyberbullying among adolescents: The role of affective and cognitive empathy, and gender. *Child Psychiatry & Human Development*, *41*(4), 387-397.Belsey, B. (2004). Always on! Always aware! Bullying.org Incorporated. Retrieved from http://www.cyberbullying.org/pdf/Cyberbullying_Information.pdf.

Bagga, S., Girdhar, A., Yan, R., & Lin, Z. (2016, February). Virtualization Approach to Cluster-Based Winograd's Variant of Strassen's Method Using RMI. In *2016 Second International Conference on Computational Intelligence & Communication Technology (CICT)* (pp. 82-88). IEEE.

Barlett, C. P., Madison, C. S., Heath, J. B., & DeWitt, C. C. (2019). Please browse responsibly: A correlational examination of technology access and time spent online in the Barlett Gentile Cyberbullying Model. *Computers in Human Behavior*, *92*, 250-255.

Burns, A. C., & Bush, R. F. (2000). Marketing Research. New Jersey: Prentice Hall International

Çankaya, İ. H., & Tan, Ç. (2015). Effect of cyberbullying on the distrust levels of preservice teachers: Considering internet addiction as a mediating Variable. *Procedia Computer Science*, *3*, 1353-1360.

Carter, J. M., & Wilson, F. L. (2015). Cyberbullying: A 21st-century health care phenomenon. *Pediatric Nursing*, *41*(3), 115.

Carter, M. A. (2017). Third-party observers witnessing cyberbullying on social media sites. *Procedia-social and behavioural sciences*, *84*, 1296-1309.

Chen, Q., Lo, C. K., Zhu, Y., Cheung, A., Chan, K. L., & Ip, P. (2018). Family poly-victimization and cyberbullying among adolescents in a Chinese school sample. *Child abuse & neglect*, *77*, 180-187.

Cohen, L., Manion, L., & Morrison, K. (2011). Research methods in education (6th ed.). London: Routledge Falmer

Corcoran, L., Connolly, I., & O'Moore, M. (2012). Cyberbullying in Irish schools: An investigation of personality and self-concept. *The Irish Journal of Psychology*, *33*(4), 153-165.

Cowie, H., Bauman, S., Coyne, I., Myers, C., Pörhöla, M., & Almeida, A. (2014). Cyberbullying amongst university students. *Cyberbullying through the new media: Findings from an international network*, 165-186.

Creswell, J. W. (2007). Qualitative inquiry & research design: Choosing among five approaches (2nd ed.). (pp. 35-41) Thousand Oaks, CA: Sage.

Dehue, F., Bolman, C., & Völlink, T. (2014). Cyberbullying: Youngsters' experiences and parental perception. CyberPsychology & Behavior, 11(2), 217–223.

Doane, A. N., Pearson, M. R., & Kelley, M. L. (2014). Predictors of cyberbullying perpetration among college students: An application of the theory of reasoned action. *Computers in Human Behavior*, *36*, 154-162.

Eksi, F. (2012). Examination of Narcissistic Personality Traits' Predicting Level of Internet Addiction and Cyber Bullying through Path Analysis. *Educational Sciences: Theory and Practice*, *12*(3), 1694-1706.

Fanti, K. A., Demetriou, A. G., & Hawa, V. V. (2015). A longitudinal study of cyberbullying: Examining risk and protective factors. *European Journal of Developmental Psychology*, *9*(2), 168-181.

Floros, G. D., Siomos, K. E., Fisoun, V., Dafouli, E., & Geroukalis, D. (2013). Adolescent online cyberbullying in Greece: The impact of parental online security practices, bonding, and online impulsiveness. *Journal of School Health*, *83*(6), 445-453.

Grigg, D. W. (2010). Cyber-aggression: Definition and concept of cyberbullying. Journal of Psychologists and Counsellors in Schools, 20(2), 143–156

Hinduja, S., & Patchin, J. W. (2008). Cyberbullying: An exploratory analysis of factors related to offending and victimization. *Deviant behaviour*, *29*(2), 129-156.

 Hinduja, S., & Patchin, J. W. (2014). *Bullying beyond the schoolyard: Preventing and responding to cyberbullying*. Corwin Press.

Hinjuda, S., & Patchin, J. W. (2007). Offline consequences of online victimization. *Journal of School Violence*, *6*(3), 89-113.

Holfeld, B., & Mishna, F. (2019). Internalizing symptoms and externalizing problems: Risk factors for or consequences of cyber victimization? Journal of Youth and Adolescence, 48(3), 567-580. https://doi.org/10.1007/s10964-018-0974-7

Juvonen, J., & Gross, E. F. (2014). Extending the school grounds? — Bullying experiences in cyberspace. *Journal of School Health*, *78*(9), 496-505.

Kim, S. Y., Kim, M. S., Park, B., Kim, J. H., & Choi, H. G. (2017). The associations between internet use time and school performance among Korean adolescents differ according to the purpose of internet use. *PLoS One*, *12*(4).

Kowalski, R. M., & Limber, S. P. (2007). Electronic bullying among middle school students. *Journal of adolescent health*, *41*(6), S22-S30.

Kowalski, R. M., & Limber, S. P. (2016). Electronic bullying among middle school students. Journal of Adolescent Health, 41, 22–30.

Kowalski, R. M., Limber, S. P., & Agatston, P. W. (2016). *Cyberbullying: Bullying in the digital age*. John Wiley & Sons.

Kowalski, R. M., Limber, S. P., & McCord, A. (2019). A developmental approach to cyberbullying: Prevalence and protective factors. *Aggression and Violent Behavior*, *45*, 20-32.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, *30*(3), 607-610.

Liang, L., Zhou, D., Yuan, C., Shao, A., & Bian, Y. (2016). Gender differences in the relationship between internet addiction and depression: A cross-lagged study in Chinese adolescents. *Computers in Human Behavior*, *63*, 463-470.

Marín-López, I., Zych, I., Ortega-Ruiz, R., Monks, C. P., & Llorent, V. J. (2020). Empathy online and moral disengagement through technology as longitudinal predictors of cyberbullying victimization and perpetration. *Children and Youth Services Review*, 105144.

Nansel, T. R., Overpeck, M., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviours among US youth: Prevalence and association with psychosocial adjustment. *Jama*, *285*(16), 2094-2100.

National Center for Health Statistics. CDC WONDER. The underlying cause of death, 1999–2017. 2018. Available from: https://wonder.cdc.gov/ucd-icd10.html.

Ozden, M. S., & Icellioglu, S. (2014). The perception of cyberbullying and cyber victimization by university students in terms of their personality factors. *Procedia-Social and Behavioral Sciences*, *116*, 4379-4383.

Raskauskas, J., & Stoltz, A. D. (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental psychology*, *43*(3), 564.

Satpathy, A., & Ganth, B. (2015). Influence of cyberbullying and fear of negative evaluation among youth. *Indian Journal of Health & Wellbeing*, *6*(10).

Sekaran, U., & Bougie, R. (2009). *Research Methods for Business: A Skill Building Approach (5th Ed.).* United Kingdom: John Wiley & Sons Ltd Production.

Sekaran, U., & Bougie, R. (2013). *Research Methods for Business: A Skill-Building Approach (6th Ed.).* New York: John Wiley & Sons Ltd Publication.

Singh, M., Bansal, D., & Sofat, S. (2016). Behavioural analysis and classification of spammers distributing pornographic content in social media. *Social Network Analysis and Mining*, *6*(1), 41.

Smith, P. K., & Steffgen, G. (Eds.). (2013). *Cyberbullying through the new media: Findings from an international network*. Psychology Press.

Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of child psychology and psychiatry*, *49*(4), 376-385.

Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of child psychology and psychiatry*, *49*(4), 376-385.

Walrave, M., & Heirman, W. (2017). Cyberbullying: Predicting victimisation and perpetration. *Children & Society*, *25*(1), 59-72.

Weber, N. L., & Pelfrey, W. V. (2014). *Cyberbullying: Causes, consequences, and coping strategies*. Lfb Scholarly Pub Llc.

Ybarra, M. L., & Mitchell, K. J. (2016). Online aggressor/targets, aggressors, and targets: A comparison of associated youth characteristics. *Journal of Child Psychology and Psychiatry*, *45*(7), 1308-1316.

Zainudin, A. (2010). Research methodology for business and social science. *Shah Alam: Universiti Teknologi Mara Publication Centre (UPENA)*.

Zhou, Z., Tang, H., Tian, Y., Wei, H., Zhang, F., & Morrison, C. M. (2015). Cyberbullying and its risk factors among Chinese high school students. *School psychology international*, *34*(6), 630-647.

Zikmund, W. G., Carr, J. C., & Griffin, M. (2015). *Business Research Methods (Book Only)*. Cengage Learning.