Supporting and Recovering University Students from the Effects of Cyberbullying: An Empirical Investigation from the Peers' Perspectives

UmulQurra [1], Syed Abdul Waheed [2], Nadia Gilani [3]

Abstract

With the rise of online interaction among young people, cyberbullying has become a pressing issue. Key social influences like friends, family, and university figures significantly shape adolescent behavior in this digital space. This research delves into the root causes, environments, and conditions that contribute to cyberbullying, along with the coping mechanisms employed by victims and the aftereffects of those strategies. To investigate these questions, researchers collected data from a randomized sample of 200 students. The self-developed questionnaire was divided into four parts with 32 questions about cyberbullying and 8 questions about the students themselves, i.e. age, gender, program, social media involvement, and physical & mental health. This helped them see if things like mental health or social media use affected the answers. To keep everything anonymous, they assigned codes to each survey instead of using names. They compared answers from different groups of students to see if there were any differences. This study is important because it can help us figure out how to stop teens from misusing technology and getting cyberbullied. Additionally, it aims to give the public the right direction to overcome cyberbullying if it happens to them.

Keywords: Peer support, cyberbullying, university students, recovery, reforms, higher education.

1. Introduction

Bullying is a big problem everywhere. It's not just about getting hurt physically. It can also make you feel sad, scared, and even like hurting yourself. This has been studied a lot, especially for in-person bullying. However, the rise of the internet and social media has birthed a new form of torment: cyberbullying. While technology has undoubtedly transformed professional landscapes, its impact on human suffering is a double-edged sword. While offering advancements and benefits, cyberbullying has become a significant source of mental health distress, including stress, sleep deprivation, and substance abuse (Goebert et al., 2011).

The digital age, rife with technological leaps and online breakthroughs, has fostered an environment of excessive internet use among adolescents. Drawn to the ubiquitous nature of cyber technology, youth

---

1 Visiting Lecturer, Department of Educational Studies, University of Okara. Pakistan.
Email: umullqurra789@gmail.com.

[2] Assistant Professor, Department of Educational Studies, University of Okara. Pakistan.
Email: s.a.waheed@uo.edu.pk

[3] Assistant Professor, Faculty of Education, University of Okara. Pakistan. Email: nadia.gilani@uo.edu.pk

frequently dedicate their leisure time to online browsing and exploration. This fascination, however, extends beyond mere connection, entertainment, and knowledge acquisition, leading them to potentially hazardous online activities (Griffiths & Wood, 2000). The internet's reach extends far and wide, encompassing information gathering, casual browsing, and social interaction. This pervasiveness has not only bolstered existing technologies but also birthed groundbreaking advancements across various sectors, including education (Sun & Chen, 2016).

Online bullying surged from 19% to 34% between 2007 and 2016 (Patchin & Hinduja, 2020), eclipsing traditional face-to-face bullying as a major concern (Smith & Tokunaga, 2013). Cyberbullying describes repeated, aggressive actions delivered electronically by a group or individual, leaving the target powerless to defend themselves (Smith et al., 2008). Research links cyberbullying to heightened depression and anxiety (Aoyama et al., 2011). Some argue its impact surpasses traditional bullying (Cénat et al., 2014). This harsher effect may stem from social media's constant presence, the permanence of online content, the vast potential audience, and the difficulty of escaping cyberbullies (Slonje et al., 2013). According to Campbell et al. (2013), the theory that cyberbullying victims experience greater social problems, despair, and anxiety compared to traditional bullying victims. Understanding these impacts, alongside victim characteristics and mitigating factors, is crucial. Research on family involvement in preventing cyberbullying and its effects lags behind studies on schools and peer environments (Abbas et al., 2014; Bradshaw, 2014). Parental support reigns supreme for young children, but as puberty approaches, this role may diminish, replaced by the growing influence of friends (Marini et al., 2006). This shift highlights the crucial role of friendships, as studies show that cyberbullied teens more frequently seek help from friends than other sources (Slonje & Smith, 2008). Indeed, reaching out to parents, friends, or teachers remains one of the most common coping mechanisms employed by teenagers facing cyberbullying.

This research dives into a gap in current knowledge by examining the link between cyberbullying and various mental health and substance abuse issues among university students. To isolate the specific effects of cyberbullying on well-being, the study accounts for individual differences in traditional bullying experiences. The core objective is to explore how cyberbullying impacts the psychological and mental health of university students. By identifying victims and assessing their emotional states, the study aims to develop practical, realistic interventions for stopping cyberbullying. Employing a quantitative descriptive approach, researchers utilized a questionnaire administered to 200 students. The study highlights the alarming psychological toll cyberbullying takes on students, parents, and educational institutions. Despite the negative impact, there's a concerning lack of support for victims, who often suffer in silence due to social stigma. The authors emphasize the need for parents, teachers, and university authorities to remain vigilant in identifying and addressing cyberbullying incidents (Abbas et al., 2020; Faryadi, 2011).

2. Conceptual framework

The effect of Cyberbullying on the mental health (i.e anxiety, depression, stress, sleep deprivation, and substance abuse) of university Students were seen. The current study provides a framework for reducing adolescent technology abuse that will eventually lead to cyberbullying and for finding solutions for adolescents to tackle the cyberbullying problem if it ever happens. In this context, the role of parents and peers to help recover students affected by cyberbullying was administered. This study was hoped to benefit all parties: adolescents, parents, teachers, and other stakeholders to minimize cyberbullying phenomena (Iqbal et al. 2023).

Figure 1.

Conceptual Framework
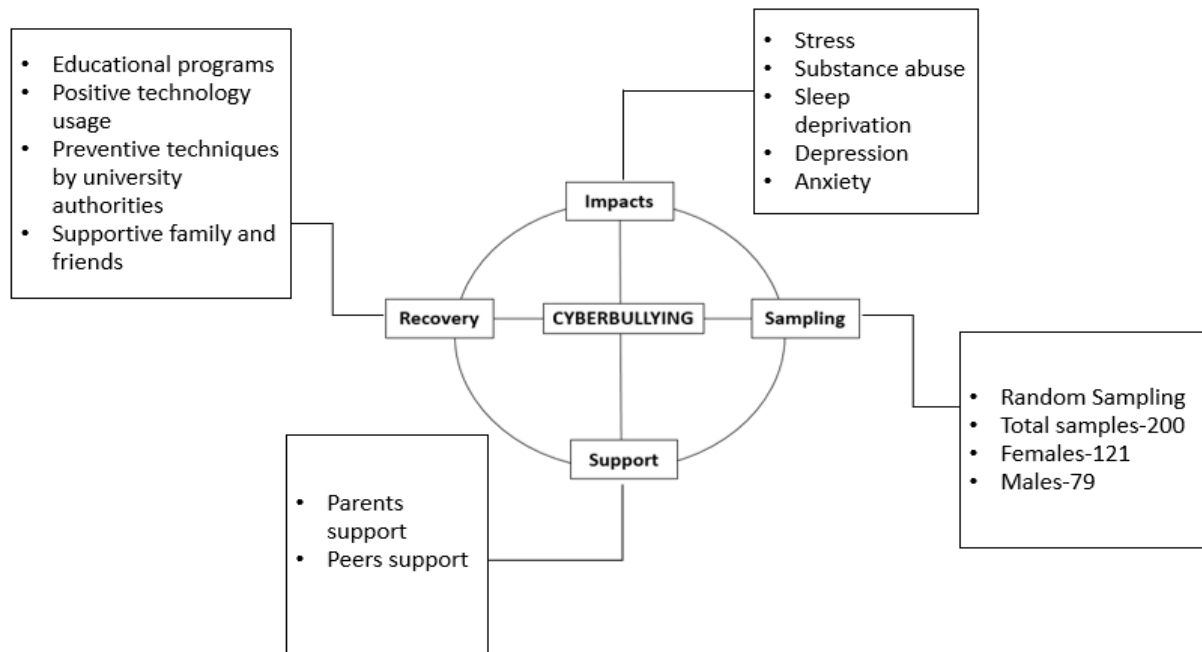
To explore research questions, data were collected from a random sample of approximately 200 students, out of which 121 were females and 79 were male. Demographic factors were used to compare results. Data was collected randomly. The findings showed that recovery from mental health issues includes educational programs, positive technology use, preventive techniques by university authorities, and supportive friends and family.

3. Statement of the Problem

The explosion of technology, social media, and unfettered online access has fueled a rise in cyberbullying. Anonymity behind screens fosters a dangerous online environment, where unseen predators lurk. This virtual cruelty inflicts real damage on mental health, with teenagers being the most susceptible due to their social vulnerability and online presence. The distressing nature of cyberbullying stems from its relentlessness and lack of boundaries. It can manifest in various ways, from malicious messages and photos to online impersonation and social media hacking. The perpetrator's intent to terrify the victim is often persistent. The anonymity of the bully, whether known or unknown adds another layer of fear (Nixon, 2014).

The potential consequences of cyberbullying are vast, ranging from emotional distress and sadness to anxiety and even suicidal thoughts. This largely ignored issue has become pervasive among youth. A comprehensive approach is needed to curb and prevent cyberbullying. Educational programs, along with supportive families, friends, and communities that promote healthy online interactions and responsible technology use, hold promise in eliminating this threat.

4. Objectives of the Study

The following research objectives guided the investigation of the study;

1. To investigate cyberbullying among university students and its effects on mental health.
2. To find out how peers support in recovering from mental health problems after the effect of cyberbullying.

5. Research Questions

Following were the research questions;

1. How university students are affected by cyberbullying?
2. How university students are supported by their parents in recovering from mental health problems?
3. How university students are supported by their peers in recovering from mental health problems?
4. What is the understanding of cyberbullied students about the effectiveness of support from family and peers in recovering from mental health problems?

6. Research Methodology

This study utilizes a quantitative and descriptive approach to assess how peer and parental support influence coping with the effects of cyberbullying on mental health. Quantitative methods involve numerical analysis of events and relationships, aiming to explain, predict, and control the phenomenon (Leedy, 1993). This study employs a descriptive research approach, focusing on understanding the characteristics of cyberbullying's mental health impacts (Gay, 1992). Descriptive surveys, as Gay (1992) explains, are well-suited to exploring social issues. These surveys gather data on attitudes, opinions, demographics, and existing conditions through questionnaires, interviews, or observations. The goal is to take a close look at bullying, focusing on exactly "what" bullying is and what it does (Gall et al., 2007).

7. Population and Sample

The study was organized at a public university, University of Okara. The population for the investigation included students from all different areas of study. To make sure the students they surveyed were a good representation of young people in general. The researchers collected data from a randomized sample of 200 students. A simple random sampling technique was used to select the samples for this study (Effects of Cyberbullying: An Empirical Investigation from the Peers' Perspectives,) as it was the easiest method. The sample consisted of 121 female and 79 male students. The researchers used simple random sampling, highlighted by Cohen et al. (2002) due to its effectiveness in research. To conclude the population statistically, simple random sampling is employed. It lessens the effects of any confounding variables and helps to achieve good internal validity. Obtaining data on cyberbullying is made easier by this manner because our study is coordinated descriptive research. We therefore have an opportunity to obtain more data from more targets by employing this sample collecting approach. This is where everyone has an equal chance of being picked. It's a great way to get unbiased results, according to Gravetter & Forzano (2011). It takes away any favoritism when choosing people for the study.

8. Research Instrument

This study depends on an important tool, a questionnaire. Nurrahman et al. (2006) describe that using the right tool is key to getting good information. So our survey which includes a self-developed questionnaire is a crucial tool to get information on bullying. The self-developed questionnaire was divided into four parts with 32 questions about cyberbullying and 8 questions about the students themselves, i.e. age, gender, program, social media involvement, and physical & mental health. The importance of the instrument cannot be overstated. Hadjar (1999) highlights the instrument's role as a foundation for successful research, providing the objective quantitative data needed to explore hypotheses and answer research questions. This self-developed questionnaire functions as a component measure, capturing variations in relevant attributes. Additionally, a simple random sample has good external validity when the sample size is large enough. It embodies the traits of the substantial population.

9. Data Analysis

Data analysis is the heart of transforming raw information into meaningful insights. This process involves organizing, interpreting, and verifying data to conclude with societal, academic, and scientific value. In this study, student test results were subjected to quantitative analysis, utilizing statistical tools like descriptive and inferential statistics (including independent samples t-tests and Pearson's correlation) to uncover patterns and relationships within the data.

10. Results of the Study

This section deals with the analysis and interpretation of the data collected to find out the cyberbullying among university students and how parents and peers support them in recovering from mental health problems. It describes the purpose of the research, the main questions, and how the researcher analyzed the data. Quantitative data was collected through a questionnaire.

11. Independent sample T-test on factors

An independent samples t-test compares the means of two unrelated groups to assess if there's a statistically significant difference between their population means.

Table 1

T-test on the effect of cyberbullying on mental health gender wise

Gender	N	Mean	Df	t-value	Sig
Female	121	37.5702	198	.840	.704
Male	79	37.1139			

Table 1 shows a t-value of 0.840, which is not statistically significant (p≤0.05). This suggests no meaningful difference between males and females regarding the effects of cyberbullying on mental health.

Table 2

T-test on parent support gender wise

Gender	N	Mean	df	t-value	Sig
Female	121	30.8182	198	3.51	.524
Male	79	28.6456			

Table 2 indicates that the t-value (3.51) is not statistically significant (p≤0.05). Hence it is concluded that there is no significant difference between males and females in parental support. The value of the mean score of females is greater than males.

Table 3

T-tests on peers support gender wise

Gender	N	Mean	df	t-value	Sig
Female	121	29.9091	198	-.548	.483
Male	79	30.2658			

Table 3 indicates that the t-value (-.548) is not statistically significant (p≤0.05). Hence it is concluded that there is no significant difference between males and females in peer support. The value of the mean score of males is greater than females.

Table 4

T-test on the effectiveness of parents' peers support gender wise

Gender	N	Mean	df	t-value	Sig
Female	121	25.8099	198	2.584	.016
Male	79	24.6582			

Table 4 indicates that t-value (2.58) is not statistically significant (p≤0.05). Hence it is concluded that there is no significant difference between males and females in the effectiveness of parental and peer support. The value of the mean score of males is greater than females.

Correlation of Factors

Table 5

Pearson r for the relationship between the effect of cyberbullying, Parent support, Peer support, the effectiveness of parents and peer support

Variables	N	r- value	Sig.
Effect of cyberbullying	200	0.1	0.000
Parent support	200	0.203	0.000
Peer support	200	0.181	0.000
Effectiveness of parents' and peers' support	200	0.246	0.000

Data from Table 5 reveals a weak but statistically significant (p ≤ 0.05) positive correlation (Pearson's r = 0.1) between cyberbullying and mental health. According to Cohen (1998), this r value indicates a weak positive relationship between these factors. Similarly, parental support shows a statistically significant (p ≤ 0.05) but weakly positive correlation (Pearson's r = 0.2) with mental health, again suggesting a weak positive influence based on Cohen's (1998) criteria. Pearson r value for peer support was (0.18) which is significant at p≤0.05 level of significance. Cohen (1998) suggested that if Pearson's r value lies between r =0.10 to r =0.29 range it shows a weak relationship. So, it was concluded that there exists a significant weak positive relationship between other factors.

Demographic Characteristics of Respondents

Table 6

Data Description Related to Gender

Demographic variables	Characterization	Percent
Gender	Female	60.5
	Male	39.5
Age		60.0
	18-20	36.5
	21-23	3.5
	24-27	

Table 7

Means score of overall factors

Variables	N	Mean	Std. Deviation
Effect of cyberbullying	200	37.3900	3.75344
Parent support	200	29.9600	4.39602
Peer support	200	30.0500	4.49092
Effectiveness of parent's and peers' support	200	25.3550	3.12535

Table 7 reveals the average scores for each factor. The impact of cyberbullying on mental health scored the highest (37.39), followed by parental support (29.96) and peer support (30.05). The combined effectiveness of parental and peer support scored the lowest (25.35).

12. Findings

The study was conducted on cyberbullying among university students and how peers support them in recovering from mental health problems. Following were the findings obtained as a result of data analysis.

Research question 1: How university students are affected by cyberbullying?

A wide range of respondents strongly agreed that cyberbullying impacts the confidence and cyberbullying experiences take towards suicide. However, a wide range of respondents agreed that cyberbullying impacts self-esteem, this experience makes them feel lonely, they feel nervous, and restless, feel a sense of impending danger, and panic, and always feel angry and frustrated on small matters after being cyberbullied. On the other hand, a wide range of respondents disagreed that cyberbullying lowers belief and leads to depression, they feel hopeless after being bullied, cyberbullying steals the feeling of happiness, and the use of drugs increases as e result of cyberbullying.

Research question 2: How university students are supported by their parents in recovering from mental health problems?

The study found overwhelming agreement that parental support is key for victims of cyberbullying. This support helps them cope with the emotional stress and manage their academic workload. It empowers victims to take control of the situation, re-engage with their environment, and find comfort through love and encouragement. Parents can also help regulate their children's emotions during stressful situations and coach them through negative feelings like fear and anger. Ultimately, this support fosters self-confidence in the victims.

Research question 3: How university students are supported by their peers in recovering from mental health problems?

The study revealed strong agreement that friends play a significant role in managing anger for victims of cyberbullying. Many respondents reported that friends offer emotional support by boosting confidence, acting as a calming presence during depression, and providing a sense of security. Friends also create a space for victims to unwind, discuss their problems, and feel heard. However, trust remained a point of contention, with a significant portion of respondents unsure if their peers could fully understand their situation.

Research question 4: What is the understanding of cyberbullied students about the effectiveness of support from family and peers in recovering from mental health problems?

A wide range of respondents strongly agreed that parental and peer support is important in recovering from mental health problems, influencing their physical activity, and effective in coping with mental health problems. On the other hand, a wide range of respondents strongly agreed that parental support is more effective than peer support. Similarly, many respondents agreed that peer support influences their personality and is more effective than parents.

Descriptive Analysis of the Factors

The study analyzed students' perceptions of cyberbullying across four categories: impact, parental support, peer support, and overall effectiveness of both. Interestingly, the analysis revealed little variation in how students perceived bullying behaviors within each category. In simpler terms, regardless of the specific situation, students generally agreed on the impact of cyberbullying (mainly affecting confidence), the importance of support from parents and peers in dealing with it, and the overall effectiveness of such support in recovering from negative mental health effects.

- The factor-wise mean score of the effect of cyberbullying is 37.39, parents support 29.96, peers support 30.05, and the effectiveness of parents and peer support is 25.35. The score shows that the effect of cyberbullying has a high mean as compared to the other factors.
- Independent sample T-test on factors.
- It is concluded that there is no significant difference between male and female effects of cyberbullying on mental health.
- The value of the mean score of females is greater than males.
- The value of the mean score of males is greater than females, which shows peer support is more effective for males the females.
- The t-value (2.58) is not significant at the $p \leq 0.05$ level of significance. Hence it is concluded that there is no significant difference between males and females in the effectiveness of parental and peer support.

13. Discussion

University students are particularly vulnerable to the damaging effects of cyberbullying, which can significantly impact their self-confidence and even lead to thoughts of suicide. This highlights the prevalence of cyberbullying in this age group and the need for serious attention to its potential for devastating mental health consequences. Calvete et al. (2010) described that protective methods against cyberbullying consider both situational and individual aspects. teenagers are believed to play a crucial part in defending themselves against cyberbullying. By reducing the frequency of technology use, among other personal aspects, gradually evolving is supposed to decrease cyberbullying and cyber victimization.

Our study found a disturbing trend: cyberbullying is not only common among young people, it's almost seen as a normal part of growing up. This pervasiveness is reinforced by how often it happens and by the fact that teens are more likely to talk to friends than parents or teachers. This silence is concerning - only a third of cyberbullied teens talk to their parents, possibly fearing restrictions on their devices. Similarly, a study conducted by Baker & Helm (2010) that cyberbullying is the biggest problem in our society, and cyberbullying leads to suicide attempts. According to Peng et al. (2019), cyberbullying has more serious implications than conventional bullying. In contrast to conventional bullying, cyberbullying is more likely to result in despair, drug usage, self-harm, suicidal thoughts, and suicide attempts.

The results supported by the study ''Examination of Associations between Informal Help-seeking Behavior, Social Support, and Adolescent Psychosocial Outcomes" conducted by Heerde & Hemphill (2018) by indicating previous results that how family characteristics, such as perceived parental and peer support deal with emotion regulation, affected the incidence of cyberbullying and the victims' experiences of it. For both cyberbullying perpetration and cyber victimization, the perception of support from friends acts as a safeguard. When it comes to being a victim of cyberbullying, perceived family support is a protective factor, but healthy family cohesion protects against being a bully personally.

A previous study conducted by Steinberg and Silk (2002) on Parenting adolescents supported our results that support from friends is a preventative measure against cyberbullying. In addition to directly increasing the likelihood of becoming a cyberbully, poor perceived peer support also indirectly impacted cyberbullying through problems with emotion regulation, such as problems controlling impulsive behavior and understanding emotions.

14. Conclusion

A university study found that cyberbullying is a serious issue impacting students' emotional well-being and academic performance. The research highlights the need for universities to take action against online harassment. Parents, educators, and students themselves must work together to create a culture that condemns cyberbullying. This can be achieved by establishing clear consequences for perpetrators and fostering positive online behavior. Furthermore, the study emphasizes the importance of additional research to develop effective strategies to prevent and intervene in cyberbullying among all student populations. This highlights the urgency for more research into cyberbullying, particularly at the university level. Understanding the motivations and characteristics of online bullies is crucial to developing effective prevention techniques. Additionally, research is needed to create better intervention methods to support victims and improve the overall online environment for everyone.

15. References

Abbas, N., Ashiq, U., & Abbas, F. (2014). Assessment of School Bullying and Contributing Factors A Case of Punjab (Pakistan). Journal of Applied Environmental and Biological Sciences, 4(7S), 241-251. http://www.textroad.com/JAEBS-Special%20Issue%20(7),%202014.html

Abbas, N., Ashiq, U., & Iqbal, M. (2020). Teachers' Perceived Contributing Factors of School Bullying in Public Elementary Schools. Journal of Educational Research, 23(1), 19-47. http://jer.iub.edu.pk/journals/JER-Vol-23.No-1/2.pdf

Aoyama, I., Saxon, T. F., & Fearon, D. D. (2011). Internalizing problems among cyberbullying victims and moderator effects of friendship quality. *Multicultural Education & Technology Journal*, *5*(2), 92-105. https://doi.org/10.1108/17504971111142637

Arikunto, S. (2002). *Research procedures: a practical approach.* Jakarta: PT. Rineka Cipta.

Baker, C. K., & Helm, S. (2010). Pacific youth and shifting thresholds: Understanding teen dating violence in Hawai 'i. *Journal of School Violence*, *9*(2), 154-173.

Bradshaw, C. P. (2014). The Role of Families in Preventing and Buffering the Effects of Bullying. *JAMA Pediatrics 168 (11),* 991–993. https://doi.org/10.1080/15388220903585879

Calvete, E., Orue, I., Estévez, A., Villardón, L., & Padilla, P. (2010). Cyberbullying in adolescents: Modalities and aggressors' profile. *Computers in Human Behavior*, *26*(5), 1128-1135. https://doi.org/10.1016/j.chb.2010.03.017

Campbell, M., Spears, B., Slee, P., Butler, D., & Kift, S. (2013). Victims' perceptions of traditional and cyberbullying, and the psychosocial correlates of their victimization. In *Emotional and* .

Behavioural Difficulties Associated with Bullying and Cyberbullying (pp. 161-173). Routledge.

Cénat, J. M., Hébert, M., Blais, M., Lavoie, F., Guerrier, M., & Derivois, D. (2014). Cyberbullying, psychological distress and self-esteem among youth in Quebec schools. Journal of affective disorders, 169, 7-9. https://doi.org/10.1016/j.jad.2014.07.019

Cohen, L., Manion, L., & Morrison, K. (2002). Research methods in education (5th ed.). routledge. https://doi.org/10.4324/9780203224342

Faryadi, Q. (2011). Cyber bullying and academic performance. Online Submission, 1(1), 23-30.

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). In Burvikovs AE. Educational Research: An Introduction (Eighth ed. ed.). Boston, Massachusetts: Pearson Publishing Allyn and Bacon.

Gay, L. R. (1992). Educational Research Competence for Analysis and Application New York Macmillan Publishers Company.

Goebert, D., Else, I., Matsu, C., Chung-Do, J., & Chang, J. Y. (2011). The impact of cyberbullying on substance use and mental health in a multiethnic sample. Maternal and child health journal, 15, 1282-1286. https://doi.org/10.1007/s10995-010-0672-x

Gravetter, F. J., & Forzano, L. B. (2011). Research methods for the behavioural Sciences, Stamford. Cengage Learning.

Griffiths, M., & Wood, R. T. (2000). Risk factors in adolescence: The case of gambling, videogame playing, and the Internet. Journal of gambling studies, 16, 199-225. https://doi.org/10.1023/A:1009433014881

Hadjar, Ibnu. (1999). Fundamental of Quantitative Research Methodology in Education. Jakarta: Raja Grafindo Persada

Heerde, J. A., & Hemphill, S. A. (2018). Examination of associations between informal help-seeking behavior, social support, and adolescent psychosocial outcomes: A meta-analysis. Developmental Review, 47, 44-62. https://doi.org/10.1016/j.dr.2017.10.001

Iqbal, M., Abbas, N. & Khan, N. (2023). In-service Teachers' Attitude and Knowledge towards School Bullying: A Conceptual and Empirical Analysis. Research Journal of Social Sciences and Economics Review, 4(3), 22-29. https://doi.org/10.36902/rjsser-vol4-iss3-2023(22-29)

Leedy, P.D (1993). Practical Research: Planning and Design. 5th ed. New York: Mackmillan Publishing Company. *American Journal of Educational Research*. 2015, *Vol.* 3 No. 9, 1122-1132

Marini, Z. A., Dane, A. V., Bosacki, S. L., & CURA, Y. (2006). Direct and indirect bully-victims: Differential psychosocial risk factors associated with adolescents involved in bullying and victimization. Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 32(6), 551-569. https://doi.org/10.1002/ab.20155

Nurrahman, M., Agustini, R., & Poedjiastoeti, S. (2006). The Development of Learning Devices Using Advance Organizer Model to Improve the Concept Understanding of the Students in Ion and Covalent Bond Materials. http://dx.doi.org/10.29322/IJSRP.9.07.2019.p9107

Patchin, J. W., & Hinduja, P. D. S. (2020). Tween Cyberbullying. USA: Cyberbullying Research Center.

Peng, Z., Klomek, A. B., Li, L., Su, X., Sillanmäki, L., Chudal, R., & Sourander, A. (2019). Associations between Chinese adolescents subjected to traditional and cyber bullying and suicidal ideation, self-harm and suicide attempts. BMC psychiatry, 19(1), 1-8. https://doi.org/10.1186/s12888-019-2319-9

Slonje, R., & Smith, P. K. (2008). Cyberbullying: Another main type of bullying?. Scandinavian journal of psychology, 49(2), 147-154. https://doi.org/10.1111/j.1467-9450.2007.00611.x

Slonje, R., Smith, P. K., & Frisén, A. (2013). The nature of cyberbullying, and strategies for prevention. Computers in human behavior, 29(1), 26-32. https://doi.org/10.1016/j.chb.2012.05.024

Smith, P. K., Del Barrio, C., & Tokunaga, R. S. (2013). Definitions of bullying and cyberbullying: How useful are the terms. Principles of cyberbullying research: Definitions, measures, and methodology, 26-40.

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. https://doi.org/10.1111/j.1469-7610.2007.01846.x

Steinberg, L., Silk, J. S., & Bornstein, M. H. (2002). Handbook of parenting: Vol. 1. Children and parenting. *Journal of Marriage and the Family*, *1*, 103-133.

Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education*, *15*. https://doi.org/10.28945/3502