

What Can Parents Do with Cyberbullying Among Adolescents?

Lingfei Cao

Abstract—In recent years, cyberbullying, as a new form of bullying, has become more prevalent among adolescents who were born in the digital era. What helps prevent adolescents from participating and/or being victimized in cyberbullying is becoming a popular topic. Although past literature on traditional bullying has mostly focused on the effective intervention strategies taken by schoolteachers, educators, and peers, we cannot ignore the role parents are playing in preventing cyberbullying among adolescents, which appears to happen more often at home or out of school. The current study reviewed a great number of papers that emphasize effective parental intervention as a protective factor for cyberbullying in adolescents. According to our review, the main influential factors are family environment, parental control, and parental knowledge. In conclusion, our review suggested building better parent-child relationships and communication, adapting autonomy-supportive parental control strategy, and as well as advancing parents' knowledge of internet use led to effective parental intervention and protection in adolescents cyberbullying.

Index Terms—Parental role, cyberbullying, adolescents

I. INTRODUCTION

In recent years, bullying has become a popular topic among school educators, parents, and developmental psychologists due to the large number of youth people involved in bullying. For example, about 20%–40% of all youth in the United States have experienced cyberbullying in their lives at least once [1, 2], and nearly 14.9 percent of young adults (18–25) in New Zealand stated that they were ever the target of cyberbullying [3]. The youth involved in bullying, regardless of being victims or perpetrators are more likely to have mental health problems and adverse social outcomes such as anxiety, depression poor school performance, and low self esteem than their fellows who have been exposed to bullying [4].

In the digital era of the 21st century, a new type of bullying behavior, cyberbullying, has taken place. Although there is variation among the definition of cyberbullying, it could be commonly considered as an online bullying behavior that is “willful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices” [5] (p.11). The harmful behaviors usually include deliberately threatening, embarrassing, and/or socially excluding someone (e.g., [6]). To be more specific, [7] also suggest that cyberbullying should include the component of a power imbalance between perpetrators and victims.

Compared to other age groups, bullying-related behaviors

are more likely to happen in the adolescent phase [8]. Many researchers believe that adolescents' brains generally would not be fully mature until their mid20's, and there is still a functional deficit in the prefrontal cortex due to the imbalanced brain development between the mid-prefrontal and amygdala [9].

As online social media platforms and virtual environments have changed the form of communication in recent years, the use of the internet by adolescents and children has been highly increasing [10–12] found that adolescents in Norwegian middle and high schools spend 2.6 hours on average actively using these social media. In China, there are 1003.06 million active users on WeChat in China monthly [13]. The average time spent online by consumers on social media in the Asia-Pacific region is 2 hours and 16 minutes [14]. Therefore, some researchers believe that in addition to traditional physical bullying, cyberbullying has gradually become a “new era”, in which children and adolescents might easily be the victims or the target. And in this paper, the parental role, involving the family environment, parental control, and also parental knowledge, in preventing adolescents from cyberbullying is the main topic. Unlike traditional bullying, cyberbullying is not limited to occurring at school but could also happen at home [1]. The current literature suggests that 70% of cyberbullying incidences have taken place at home [15]. Therefore, the intervention from parents or caregivers could be as essential as that from schoolteachers and educators to either prevent and/or protect adolescents from cyberbullying.

The current literature review aims to provide a comprehensive review of recent findings from cyberbullying studies that shed a light on the influence of the family environment (including family conflicts, incivility, and communication), parental control, and parental knowledge and awareness of internet use.

II. METHOD

A. Participants

The current literature review is focused on adolescence aged between 10 and 25 years old. This age range was chosen based on the latest discussion among developmental psychologists. It is suggested that the peak of development in puberty for boys is 13 years old and that of girls is 11 years old. However, there are 50% of girls have their breast budding at age 10 [16]. In addition, research in adolescent brain development suggests the areas that support the emotion regulation system which could be related to highly

Manuscript received June 26, 2022; revised August 23, 2022; accepted October 30, 2022.

Lingfei Cao is with Ohio State University, USA. E-mail: cao.972@osu.edu (L.G.C.)

risky behaviors are not fully mature until the mid-20s [17–19]. Therefore, we included studies with data from adolescents from that age range. Furthermore, the current literature covers findings from different ethnicities and cultural backgrounds, such as China, Spain, England, Israeli, Chilean, Singapore, Greek, Italy, and the United State

This article’s reviewing method followed the PRISMA guide list. I used keywords such as “cyberbullying”, and “repetition online bullying” to filter official documents on Google Scholar which are related to the study subjects. As

some researchers include cyber aggression as part of cyberbullying, it is not included in this study: cyber aggression is the aggression behaviors through online technology, but not include power imbalance and repetition [20–22]. I used a table to do the synthesis, and during the synthesis, all the parental factors which were mentioned as influential to the prevalence of cyberbullying were listed in the table (Table I). Furthermore, this study also compared these parental factors and give some valuable suggestions to caregivers.

TABLE I: THE TABLE USED TO SYNTHESIZES THE PARENTAL FACTORS

Study	Participants	Family factors	Mediator	Moderator
Ang (2015)	10–19	poor emotional bond, lack of knowledge about the adolescent' s online activities, and lack of adequate parental monitoring and parental mediation		parental knowledge and awareness
Elsaesser <i>et al.</i> (2017).	10–18	parental warmth; parental monitoring; parental mediation		
Kowalski <i>et al.</i> (2019)	12–18	parental warmth; parental monitoring; parental mediation; and emotional support		parent-adolescents relationship
Makri-Botsari and Karagianni (2014)	junior and senior high school	Parental mediation; Parental education level		
Baldry <i>et al.</i> (2019)	13–18	parent's role: supervision; education, control		Gender difference: parental supervision an cybervictimization
Buelga <i>et al.</i> (2016)	adolescence	Inconsistent, ineffective discipline, which can be too slack or too severe; Lack of parental affection, support, and implication; Family communication problems; Conflicts between partners or between parents and children		
Helfrich <i>et al.</i> (2020)	4 th -6 th grade	communication and monitor		
Gómez-Ortiz <i>et al.</i> (2019)	mean age 14.34	Parental monitoring style		
Martín-Criado <i>et al.</i> (2021)	10–16	parental monitoring; parental supervision	online extimacy and use of SMP	
Rodriguez-Rivas <i>et al.</i> (2022)	14–18	family conflict and family support		
Baldry <i>et al.</i> (2015)	10–19	parental supervision		
Katz <i>et al.</i> (2019)	7 th -8 th grade	parental mediation		
Bevilacqua <i>et al.</i> (2017)	11–16	family support and gender		
Lim and Tai. (2014)		family incivility	hopeless	Emotional Intelligence

III. RESULT

A. The Influential Factors of Cyberbullying

In recent years, there has been an increasing number of studies that draw our attention to the importance of parents' influence on cyberbullying among adolescents [23–25] and so on. Overall, the common salient factors discussed by researchers are family environment, parents' role, and parents' knowledge and awareness of internet use, which might help adolescents with their aggression behaviors in general and attitude towards cyberbullying. Possible moderators and mediators between these factors and cyberbullying are also discussed with examples.

B. Family Environment

According to studies in the past decades, family conflicts and parental support are two potentially important factors in cyberbullying [1, 26–28]; The number of family conflicts and adolescents' experiences at home might increase the possibility of him/her involved in cyberbullying as a perpetrator or victim. On the contrary, parental warmth is suggested as a protective factor that is negatively related to cyberbullying [23, 29–31].

C. Family Conflicts

Family conflicts are common in every household. About 90 percent of American mothers and 95 percent of American fathers reported that they experienced family conflicts in their daily life [26]. Family conflicts can be the active opposition between family members which includes a wide variety of forms such as verbal, physical, sexual, and psychological [27]. These family conflicts such as abuse at home, violence at home, and disagreement at home were shown as predictors of violent attitudes, and poor emotional regulation skills among adolescents. For example, adolescents who live in a single-parent household and have witnessed plenty of family conflicts are more likely to be cyberbullied [30–33].

Regardless of the conflicts between two or between parents and children, the more an adolescent experience, the more likely he/she would grow a violent attitude. For example, adolescents might learn inappropriate problem-solving strategies that involve violent attitudes and behaviors from their parents, which could be later reflected in their bullying behaviors in online social activities [28]. Furthermore, adolescents who suffer more family conflicts could also suffer more from being cyberbullying victims. This suggests that adolescents in households with higher family conflict levels may have a lower ability to regulate their emotions, and thus they are more likely to feel lonely, and anxious and have low self-esteem. This would further increase the chance of being a cyber-victim [34, 35].

Family incivility would also be considered one type of family conflict. Although it is usually a low-intensity behavior (e.g., sarcasm, shouting at or demeaning someone, ignoring others), it still violates mutual respect among family members. [25] and [36] found that the more family incivility an adolescent is exposed to, the more likely the adolescent would grow a feeling of hopelessness, which is also reported to be positively related to cyberbullying. However, they later proposed that hopelessness is playing a mediator role and family incivility is indirectly related to cyberbullying. This

finding suggests that unless adolescents develop a sense of hopelessness, being exposed to family incivility such as using sarcasm in the conversation would not lead to their participation in cyberbullying

Lim *et al.* [36] also proposed in the study that emotional intelligence is functioning as a moderator in the relationship between hopelessness and cyberbullying behaviors. According to their theory, emotional intelligence could weaken the positive relationship between family incivility and hopelessness. For example, an adolescent who is better at regulating negative emotions (e.g., hopelessness) from experiencing family incivility, he/she would have a lower possibility of involving in cyberbullying, compared to their peers who have relatively fewer emotional regulation skills or lower emotional intelligence but living in the similar family environment (see Fig. 1). However, as important as Lim and Tai think of emotional intelligence, without statistical evidence, it is unknown whether emotional intelligence can also be a moderator of the relationship between hopelessness and cyberbullying among adolescents.

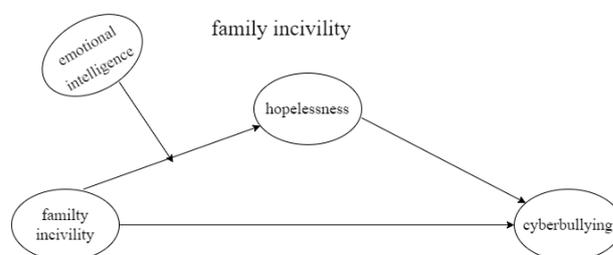


Fig. 1. Emotional intelligence as a moderator in the relationship between family incivility and hopelessness which is a mediator between family incivility and cyberbullying.

D. Family Support

The support from parents can be from emotional and communication aspects. The poor emotional bond between adolescents and their parents is one of the risk factors that might lead to cyberbullying [23, 24, 29]. For instance, the research by [37] found that poor family relationships relate to more frequent cyberbullying behaviors in adolescents. Another research with data from 1241 parents and 1270 adolescents found similar results that the higher parents' emotional bond with adolescents, the lower their chance of being perpetrators and victims of cyberbullying [38].

Parent-child communication is also one of the influential factors that could impact adolescents' cyberbullying behavior. Communication without a positive attitude and suitable method is related to both low self-control ability and more frequent participation in cyberbullying [24, 28]. According to some studies, there are two subthemes of communication that parents usually use to communicate with their adolescents about cyberbullying. The first is promoting perspective (i.e., helping perpetrators understand how victims will feel and help victims understand more about bullies), and the second is empowerment (i.e., helping youth to establish confidence and self-esteem to reduce the negative effect).

Helfrich *et al.* [1] found that both two subthemes of communication are effective in preventing cyberbullying. In addition, [39] found adolescents who have more avoidant

communication with fathers and less open communication with mothers tend to have a higher chance to be exposed to cyber-victimization. Similarly, [40] suggests that positive communication between parents and adolescents may be directly related to lower involvement in cyberbullying.

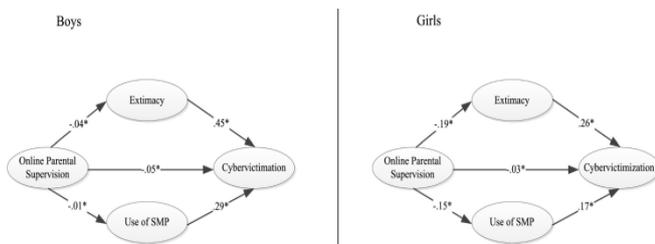
E. Parental Control of Technology

Due to a large amount of cyberbullying happening at home, parental control becomes more essential to prevent adolescents from media-related harm [41, 42]. Kowalski *et al.* [41] found that cyber victimization is related to the lower level of parental control of technology. Several papers have discussed the effectiveness of parental control of technology when they are actively involved in cyberbullying prevention by monitoring and mediating.

F. Parental Monitoring Strategies

Several studies revealed that adolescents who received a lower level of monitoring in internet use from parents were more likely to get involved in cyberbullying [1, 23, 28, 43]. Although adolescents may react reluctantly to strict parental control in their life [44], they might not be opposed to the appropriate degree of parental monitoring such as “supervision” instead of “snoopervision”. For example, adolescents would accept their parents' tracking their local history occasionally but would not like to be consistently monitored via keystroke software installed on the computer [45].

However, Martín-Criado *et al.* [46] found that parental supervision of adolescents' online activities can not directly predict victimization in cyberbullying unless such supervision can guide adolescents to properly use social media and help them stay away from being “extimate” on the Internet (see Fig. 2). Adolescents who are “extimate” are enthusiastic about showing their identity and their information online [47]. For example, when an adolescent is transparent about everything that happened in daily life on social media, he/she is facing a great risk of cyber victimization. If parents' monitoring could target reducing adolescents' “extimacy” on social media, adolescents might have a lower possibility of being cyberbullying victims. Therefore, it is possible that regulating adolescents' behavior of “extimacy” on the Internet and social media could mediate the relationship between parental supervision and cyberbullying. Future research is needed to test such a mediation model.



*Statistically significant differences $p < .001$

*Statistically significant differences $p < .001$

Fig. 2. This figure shows the moderator role played by extimacy and use of social media platforms in the relationship between parental supervision and cyber victimization. From parental supervision and victims of cyberbullying: Influence of the use of social networks and online extimacy (p.165), by J.M. Martín-Criado, J.A. Casas, & R. Ortega-Ruiz, 2021, Elsevier Espana. Copyright 2021 Universidad de Pais' Vasco.

Interestingly, one of the possible moderators in the relationship between parental supervision and cyberbullying is gender [22, 48]. The impact that parental control of internet use on boys and girls is different (See Fig. 1). For boys, parental control could evidentially prevent them from being a perpetrator but is not significantly related to victimization in cyberbullying; On the contrary, a nearly opposite situation was reported to happen among girls—the parental supervision, control, and education were not significantly related with preventing them from being cyberbullying perpetrators but were a protective factor for girls getting victimized in cyberbullying. The more monitoring parents can offer, the more likely they can prevent girls from being cyberbullied.

G. Parental Mediating Strategies

According to [49], parental mediation can be divided into two categories: 1) restrictive-controlling mediation—mainly controlling and limiting adolescents' online activities such as blocking access to some websites; 2) autonomy-supportive (evaluative) which allowed adolescents discuss their feeling and open discussion and joint creation of rules [49–51]. However, studies on the effect of these two mediation strategies on cyberbullying showed controversial results. Chen *et al.* [52] found that parental mediation predicts victimization in cyberbullying indirectly whereas. Ang *et al.* [24] found that parental mediation can be a factor that protects adolescents from the negative influence of media. Parental mediation strategies that included more discussion with adolescents tend to have better results in preventing cyberbullying than those who just set rules without much discussion. This suggests that future studies should not only discuss parental mediation in general, and it is necessary to investigate specific strategies.

Mesch *et al.* [53], found that restrictive mediation has no relationship with cyberbullying victimization. Evaluative mediation is related to cyberbullying and can lower the rate of cyberbullying. In a cross-sectional study of 2186 Canadian adolescents, Mishna *et al.* [44] showed when parents blocked programs on the Internet to reduce the possibility that adolescents become perpetrators or victims of cyberbullying, adolescents appear to have a higher chance involving in cyberbullying. That could be because when adolescents are in the transition to becoming an adult, they prefer to make decisions independently. Meanwhile, they do not always share thoughts with their parents. Therefore, when parents are greatly involved in adolescents' decision-making, conflicts will raise. This suggests that a restrictive style of parental mediation might be ineffective.

However, several other researchers showed that the stricter the rules of internet use made by parents, the lower the chance of children being exposed to internet risks [54]. For example, Katz *et al.* [49] found that a higher frequency of restrictive-controlling cyber-mediating style predicted a lower possibility of adolescents involved in cyberbullying as perpetrators. Moreover, Elsaesser *et al.* [23] suggests that there might be cultural effects on the effectiveness of restrictive mediation. For example, Law *et al.* [7] found that parental control related to a lower report of cyberbullying more closely for Asian adolescents compared with European

adolescents. That's may because the restrictive parental control over Asian adolescents' online activities may be culturally appropriate. Restrictive parental control might not undermine the relationship between parents and Asian adolescents (See Fig. 3). Additionally, parental mediation is also related to the parental style. Katz *et al.* [49] found that when the styles of general parenting and cyber-mediation are inconsistent, adolescents are more likely involved in cyberbullying. For example, when parents use a restrictive and controlling style in their general parenting and use an autonomy-supportive style just as cyber-mediation, the adolescents have a higher possibility to involve in cyberbullying than the adolescents who are both parented with a restrictive-controlling style.

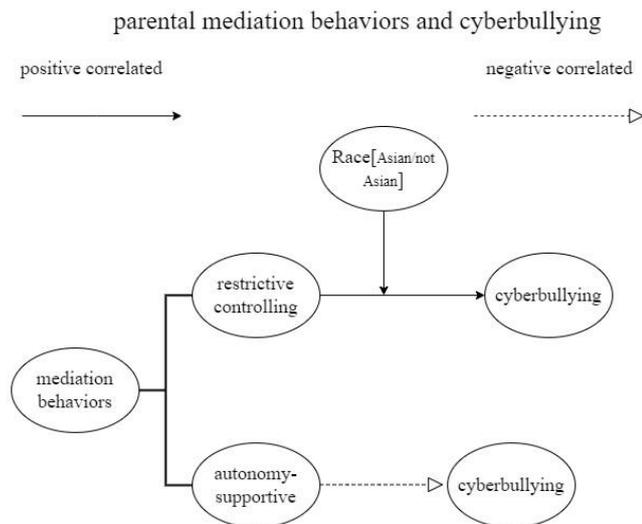


Fig. 3. Race as a moderator can influence the relationship between restrictive control-ling and cyberbullying, then the autonomy-supportive strategies could reduce the prevalence of cyberbullying.

H. Parental Knowledge, Awareness, and Involvement

Parents who are informed and aware of the risks of surfing on the internet are better at minimizing the possibility of cyberbullying because they can guide their children to identify the potential risks and to more properly and safely use the internet. However, based on [54], parents' knowledge of the internet and social networking is generally inadequate: many parents most commonly consider cyberbullying as a risky behavior that could occur via texts, mobile phones, and messenger, but are not aware of that via online chatrooms or emails. In addition, in a study done by [55] 50 percent of parents in the United States appeared to show a lack of knowledge of the various cyber safety system.

Compared to adolescents in the current generation who are digital natives [56] and who have been born and bred in the technological society, parents have less knowledge of the internet or social media [28]. Thus, it might be hard for parents who did not grow up with technology to regulate adolescents' online behaviors and/or support them to participate in cyberspace. It was reported that adolescents whose parents have more knowledge and awareness of their children's online activities tend to have a lower possibility to get involved in cyberbullying and a lower level of problematic internet use [24]. It is reasonable to assume that parents who gain knowledge through child disclosure may reflect an open relationship between parents and child, and

the open relationship between parents and child may indicate that parents would influence their child's behaviors easier than parents who gained knowledge through parental efforts to control their children's online activities [23]. Parental knowledge generally is related to parental supervision. Unfortunately, lacking knowledge of the Internet might lead to less parental control with fewer rules for adolescents' internet use [54]

Many researchers suggest that advancing parents' knowledge and awareness of internet use and safety should be the first step toward cyberbullying prevention and intervention for adolescents (e.g., [46]). In particular, Martín-Criado *et al.* [46] tested the relationship between parental knowledge of cyberbullying and parental supervision by a representative sample of 596 families in Spain. In this study, four predictor variables were analyzed: 1) Parental knowledge of cyberbullying, 2) perception of parental competence, 3) parental perceptions of online risk, and 4) the attribution of parental responsibility in digital education (i.e., if parents or teacher/ school should response to adolescents' online behaviors intervention). Their results indicated that a better perception of parental competence in preventing online risks leads to better parental supervision practice. Parental knowledge about cyberbullying significantly influences the whole model. The parental knowledge about cyberbullying directly influences parental competence, online risk perception, and attribution of responsibility. The greater perception of online risk, the worse parental practices. As for the attribution of responsibility, if parents believe it is the school's responsibility to protect adolescents from cyberbullying, parental supervision would be worse.

IV. CONCLUSION

The current paper aimed to give a comprehensive review of the importance of the parental role in preventing cyberbullying among adolescents. We analyzed 16 papers published between 2008 and 2022 and found that most research suggested parents' intervention is just as essential as what schoolteachers and educators can do. The main influential factors that might make a difference in reducing adolescents' cyberbullying incidence are parental mediation, family environment, and also parents' knowledge about cyberbullying, and found that parental factors are still important factors that would influence the prevalence of cyberbullying in adolescents. Firstly, effective parent-child communication helps prevent cyberbullying. Secondly, parental supervision and mediation strategies are also critical in lowering the risks of cyberbullying: adolescents who have less parental supervision are more likely to get involved in cyberbullying. Furthermore, it is more difficult for parents who have less knowledge of internet use to set up suitable rules and have acceptable strategies for their adolescents. Moreover, just increasing the amount of supervision or supervision behaviors is not sufficient, parental supervision targeting reducing children's "extimacy" online appears to be a more effective strategy for cyberbullying prevention. Similarly for parental mediation, not all parental mediation strategies are influential to adolescents' cyberbullying behaviors, for example, restrictive strategies are less effective than autonomy-support/evaluative strategies which

adolescents would discuss with their parents about the rules they set up.

Apart from family environment, parental control roles, parental knowledge, and awareness discussed in the current study, other factors might be related to cyberbullying and may be mediated by parents. For example, not only the amount of communication is important for parents to prevent the prevalence of cyberbullying but also strategies are critical because they could influence the relationship between parents and their children which lead to influence the possibility that adolescents involved in cyberbullying.

Eğeci *et al.* [57] found that better communication is the key to reducing cyberbullying among adolescents because better communication is more likely to develop better parent-child relationships. With a better parent-child relationship, adolescents might disclose more decision-making to their parents, which helps parents find better solutions to cyberbullying problems.

Therefore, parental supervision, mediation, communication method, and also the communication method are all important factors that would influence the possibility that adolescents are involved in cyberbullying. And due to the negative effect of cyberbullying, this paper would like to let more caregivers know more about how their behaviors and strategies may help their child get away from cyberbullying.

We hope this review will help educators and parents better understand not only what cyberbullying is but also how people around adolescents, including schoolteachers, caregivers, and family members can work together to improve teenagers' socioemotional and mental well-being.¹

CONFLICT OF INTEREST

The author declares no conflict of interest

ACKNOWLEDGMENT

Lingfei Cao thanks Dr. HRY helped check the grammar.

REFERENCES

- [1] E. L. Helfrich, J. L. Doty, Y. W. Su, J. L. Yourell, and J. Gabrielli, "Parental views on preventing and minimizing negative effects of cyberbullying," *Children and Youth Services Review*, vol. 118, 2020.
- [2] T. R. Nansel, M. Overpeck, R. S. Pilla, W. J. Ruan, B. S. Morton, and P. Scheidt, "Bullying behaviors among US youth," *JAMA*, vol. 285, no. 1, p. 2094, 2001.
- [3] M. J. Wang, K. Yogeewaran, N. P. Andrews, D. R. Hawi, and C. G. Sibley, "How common is cyberbullying among adults? Exploring gender, ethnic, and age differences in the prevalence of cyberbullying," *Cyberpsychology, Behavior, and Social Networking*, vol. 22, no. 11, pp. 736–741, 2019.
- [4] E. D. Barker, L. Arseneault, M. Brendgen, N. Fontaine, and B. Maughan, "Joint development of bullying and victimization in adolescence: Relations to delinquency and self-harm," *Journal of the American Academy of Child and Adolescent Psychiatry*, vol. 47, no. 9, pp. 1030–1038, 2008.
- [5] National Center for Education Statistics. (2019). Cyberbullying and cell phone policy in U.S. primary and secondary schools. [Online]. Available: <https://nces.ed.gov/datapoints/2019053.asp>
- [6] J. W. Patchin and S. Hinduja, "Bullies move beyond the schoolyard: A preliminary look at cyberbullying," *Youth Violence and Juvenile Justice*, vol. 4, no. 2, pp. 148–169, 2006.
- [7] D. M. Law, J. D. Shapka, J. F. Domene, and M. H. Gagné, "Are cyberbullies really bullies? An investigation of reactive and proactive online aggression," *Computers in Human Behavior*, vol. 28, no. 2, pp. 664–672, 2012.
- [8] P. K. Smith, H. Cowie, R. F. Olafsson, and A. P. Liefhoghe, "Definitions of bullying: A comparison of terms used, and age and gender differences, in a fourteen-country international comparison," *Child Development*, vol. 73, no. 4, pp. 1119–1133, 2002.
- [9] N. Tottenham and A. Galván, "Stress and the adolescent brain: Amygdala-prefrontal cortex circuitry and ventral striatum as developmental targets," *Neuroscience and Biobehavioral Reviews*, vol. 70, pp. 217–227, 2016.
- [10] P. Greenfield and Z. Yan, "Children, adolescents, and the internet: A new field of inquiry in developmental psychology," *Developmental Psychology*, vol. 42, no. 3, pp. 391–394, 2006.
- [11] E. McDool, P. Powell, J. Roberts, and K. Taylor, "The internet and children's psychological wellbeing," *Journal of Health Economics*, vol. 69, 2020.
- [12] G. S. Brunborg, J. B. Andreas, and E. Kvaavik, "Social media use and episodic heavy drinking among adolescents," *Psychological Reports*, vol. 120, no. 3, pp. 475–490, 2017.
- [13] L. L. Thomala. (2022). China: Mau of WeChat Mini Programs 2021. Statista. [Online]. Available: <https://www.statista.com/statistics/1228315/china-number-of-wechat-mini-program-monthly-active-users/>
- [14] Ganbold, S. (2022). Topic: Social media in the Asia-Pacific region. Statista. [Online]. Available: <https://www.statista.com/topics/6606/social-media-in-asia-pacific/#topicOverview>
- [15] R. M. Kowalski, S. E. Limber, and P. W. Agatston, *Cyberbullying: Bullying in the Digital Age*, (2nd ed.). Malden, MA: Wiley-Blackwell, 2012.
- [16] R. L. Rosenfield, R. B. Lipton, and M. L. Drum, "Thelarche, pubarche, and menarche attainment in children with normal and elevated body mass index," *Pediatrics*, vol. 123, no. 1, pp. 84–88, 2009.
- [17] B. J. Casey, S. Getz, and A. Galvan, "The adolescent brain," *Developmental Review*, vol. 28, no. 1, pp. 62–77, 2008.
- [18] D. J. Simmonds, M. N. Hallquist, M. Asato, and B. Luna, "Developmental stages and sex differences of white matter and behavioral development through adolescence: A longitudinal diffusion tensor imaging (DTI) study," *NeuroImage*, vol. 92, pp. 356–368, 2014.
- [19] S. F. Steinberg, "Structural basis of protein kinase C isoform function," *Physiological Reviews*, vol. 88, no. 4, pp. 1341–1378, 2008.
- [20] S. Bauman and A. Baldasare, "Cyber aggression among college students: Demographic differences, predictors of distress, and the role of the University," *Journal of College Student Development*, vol. 56, no. 4, pp. 317–330, 2015.
- [21] L. Corcoran, C. Guckin, and G. Prentice, "Cyberbullying or cyber aggression? A review of existing definitions of cyber-based peer-to-peer aggression," *Societies*, vol. 5, no. 2, pp. 245–255, 2015.
- [22] M. F. Wright, "Parental mediation, cyberbullying, and cybertroubling: The role of gender," *Computers in Human Behavior*, vol. 71, pp. 189–195, 2017.
- [23] C. Elsaesser, B. Russell, C. M. Ohannessian, and D. Patton, "Parenting in a digital age: A review of parents' role in preventing adolescent cyberbullying," *Aggression and Violent Behavior*, vol. 35, pp. 62–72, 2017.
- [24] R. P. Ang, "Adolescent cyberbullying: A review of characteristics, prevention and intervention strategies," *Aggression and Violent Behavior*, vol. 25, pp. 35–42, 2015.
- [25] Q. Bai, S. Bai, Y. Huang, F. H. Hsueh, and P. Wang, "Family incivility and cyberbullying in adolescence: A moderated mediation model," *Computers in Human Behavior*, vol. 110, 2020.
- [26] J. C. Williams and H. Bouskey. (2010). The three faces of work-family conflict. Center for American Progress. [Online]. Available: <https://www.americanprogress.org/article/the-three-faces-of-work-family-conflict/>
- [27] E. Marta and S. Alfieri, "Family conflicts," *From Encyclopedia of Quality of Life and Well-Being Research*, 2014.
- [28] S. Buelga, B. M. Ferrer, and G. Musitu, "Family relationships and cyberbullying," *Cyberbullying Across the Globe*, pp. 99–114, 2016.
- [29] R. M. Kowalski, S. P. Limber, and A. McCord, "A developmental approach to cyberbullying: Prevalence and protective factors," *Aggression and Violent Behavior*, vol. 45, pp. 20–32, 2019.
- [30] M. E. R. Rivas, J. J. Varela, C. González, and M. J. Chuecas, "The role of family support and conflict in cyberbullying and subjective well-being among Chilean adolescents during the Covid-19 period," *Heliyon*, vol. 8, no. 4, 2022.

¹ It is recommended that footnotes be avoided (except for the unnumbered footnote with the receipt date on the first page). Instead, try to integrate the footnote information into the text.

- [31] L. Bevilacqua, N. Shackleton, D. Hale *et al.*, “The role of family and school-level factors in bullying and cyberbullying: A cross-sectional study,” *BMC Pediatrics*, vol. 17, no. 1, pp. 1–10, 2017.
- [32] S. M. Bottino, C. M. Bottino, C. G. Regina, A. V. Correia, W. S. Ribeiro, “Cyberbullying and adolescent mental health: Systematic review,” *Cadernos De Saúde Pública*, vol. 31, no. 3, pp. 463–475, 2005.
- [33] K. A. Fanti, A. G. Demetriou, and V. V. Hawa, “A longitudinal study of cyberbullying: Examining risk and protective factors,” *European Journal of Developmental Psychology*, vol. 9, no. 2, pp. 168–181, 2012.
- [34] N. Arató, A. N. Zsidó, A. Rivnyák, B. Péley, and B. Lábadi, “Risk and protective factors in cyberbullying: The role of family, social support and emotion regulation,” *International Journal of Bullying Prevention*, vol. 4, no. 2, pp. 160–173, 2021.
- [35] G. Giancesini and A. Brighi, “Cyberbullying in the era of digital relationships: The unique role of resilience and Emotion Regulation on Adolescents’ adjustment,” *Technology and Youth: Growing up in a Digital World*, pp. 1–46, 2015.
- [36] S. Lim and K. Tai, “Family incivility and job performance: A moderated mediation model of psychological distress and core self-evaluation,” *Journal of Applied Psychology*, vol. 99, no. 2, pp. 351–359, 2014.
- [37] M. L. Ybarra and K. J. Mitchell, “Youth engaging in online harassment: Associations with caregiver–child relationships, internet use, and personal characteristics,” *Journal of Adolescence*, vol. 27, no. 3, pp. 319–336, 2004.
- [38] G. D. Floros, K. E. Siomos, V. Fisoun, E. Dafouli, and D. Geroukalis, “Adolescent online cyberbullying in Greece: The impact of parental online security practices, bonding, and online impulsiveness,” *Journal of School Health*, vol. 83, no. 6, pp. 445–453, 2013.
- [39] S. Buelga, B. M. Ferrer, and M. J. Cava, “Differences in family climate and family communication among cyberbullies, cybervictims, and cyber bully—Victims in adolescents,” *Computers in Human Behavior*, vol. 76, pp. 164–173, 2017.
- [40] J. L. Doty, A. L. Gower, R. E. Sieving, S. L. Plowman, and B. J. McMorris, “Cyberbullying victimization and perpetration, connectedness, and monitoring of online activities: Protection from parental figures,” *Social Sciences*, vol. 7, no. 12, 2018.
- [41] R. M. Kowalski, G. W. Giumetti, A. N. Schroeder, and M. R. Lattanner, “Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth,” *Psychological Bulletin*, vol. 140, no. 4, 2014.
- [42] A. C. Baldry, D. P. Farrington, and A. Sorrentino, “Am I at risk of cyberbullying”? A narrative review and conceptual framework for research on risk of cyberbullying and cybervictimization: The risk and needs assessment approach,” *Aggression and Violent Behavior*, vol. 23, pp. 36–51, 2015.
- [43] H. Vandebosch and K. V. Cleemput, “Cyberbullying among youngsters: Profiles of bullies and victims,” *New Media and Society*, vol. 11, no. 8, pp. 1349–1371, 2009.
- [44] F. Mishna, M. K. Kassabri, T. Gadalla, and J. Daciuk, “Risk factors for involvement in cyber bullying: Victims, bullies and bully–victims,” *Children and Youth Services Review*, vol. 34, no. 1, pp. 63–70, 2012.
- [45] P. W. Agatston, R. Kowalski, and S. Limber, “Students’ perspectives on cyber bullying,” *Journal of Adolescent Health*, vol. 41, no. 6, S59–S60, 2007.
- [46] J. M. M. Criado, J. A. Casas, and R. O. Ruiz, “Parental supervision: Predictive variables of positive involvement in cyberbullying prevention,” *International Journal of Environmental Research and Public Health*, vol. 18, no. 4, 2021.
- [47] B. Kim and Y. Kim, “Growing as social beings: How social media use for college sports is associated with college students’ group identity and collective self-esteem,” *Computers in Human Behavior*, vol. 97, pp. 241–249, 2019.
- [48] A. C. Baldry, A. Sorrentino, and D. P. Farrington, “Cyberbullying and cybervictimization versus parental supervision, monitoring and control of adolescents’ online activities,” *Children and Youth Services Review*, vol. 96, pp. 302–307, 2019.
- [49] I. Katz, D. Lemish, R. Cohen, and A. Arden, “When parents are inconsistent: Parenting style and adolescents’ involvement in cyberbullying,” *Journal of Adolescence*, vol. 74, pp. 1–12, 2019.
- [50] S. Livingstone and E. J. Helsper, “Parental mediation of children’s internet use,” *Journal of Broadcasting and Electronic Media*, vol. 52, no. 4, pp. 581–599, 2008.
- [51] O. O. Ortiz, C. Apolinario, E. M. Romera, and R. O. Ruiz, “The role of family in bullying and cyberbullying involvement: Examining a new typology of parental education management based on adolescents’ view of their parents,” *Social Sciences*, vol. 8, no. 1, p. 25, 2019.
- [52] L. Chen, S. S. Ho, and M. O. Lwin, “A meta-analysis of factors predicting cyberbullying perpetration and victimization: From the social cognitive and media effects approach,” *New Media and Society*, vol. 19, no. 8, pp. 1194–1213, 2017.
- [53] G. S. Mesch, “Parental mediation, online activities, and cyberbullying,” *Cyberpsychology and Behavior*, vol. 12, no. 4, pp. 387–393, 2009.
- [54] L. Leung and P. S. Lee, “The influences of information literacy, internet addiction and parenting styles on internet risks,” *New Media and Society*, vol. 14, no. 1, pp. 117–136, 2012.
- [55] E. M. Botsari and G. Karagianni, “Cyberbullying in Greek adolescents: The role of parents,” *Procedia-Social and Behavioral Sciences*, vol. 116, pp. 3241–3253, 2014.
- [56] M. Prensky, “Digital natives, digital immigrants part 1,” *On the Horizon*, vol. 9, no. 5, pp. 1–6, 2001.
- [57] İ. Egeci and T. Gençöz, “Factors associated with relationship satisfaction: Importance of communication skills,” *Contemporary Family Therapy*, vol. 28, no. 3, pp. 383–391, 2006.

Copyright © 2023 by the authors. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)).