

Cyberbullying As A Threat To Adolescent Well-Being: A Study On Emotional And Behavioral Outcomes

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Abstract

This research examines the emotional and behavioral effects of cyberbullying, which is a serious danger to teenage wellbeing. A validated Likert-scale questionnaire measuring exposure to cyberbullying, anxiety, aggressiveness, and depression levels was used to gather data from a representative sample of 384 teenagers using a quantitative research technique. SPSS was used for statistical analysis, while AMOS was used for structural equation modeling (SEM), which examined the connections between important variables. The results show that among teenagers, cyberbullying is linked to increased levels of anxiety, sadness, and violent behavior. The relationship between cyberbullying and behavioral consequences was shown to be mediated by emotional reactions, including anxiety and sadness. This suggests that unresolved emotional distress may eventually result in maladaptive behaviors. The necessity for gender-sensitive therapies was highlighted by the finding that gender was a moderating factor, with female adolescents demonstrating a stronger emotional effect than male adolescents. The report promotes all-encompassing school-based tactics to lessen the negative impacts of cyberbullying, such as peer support networks, awareness campaigns, instruction on digital citizenship, and easily available mental health resources. In the end, this study advances our knowledge of how teenage development is impacted by online interactions and emphasizes the need of taking preventative action to protect adolescents' emotional and mental health.

Keywords: Cyberbullying, Adolescent Well-being, Emotional Outcomes, Behavioural Outcomes, Anxiety, Depression.

1 INTRODUCTION

Bullying victims is long-term behavioral, social, and psychological repercussions and is a worldwide public health problem. Bullying is characterized as when an individual or group intentionally causes another person to feel uncomfortable or harmed. These behaviors include an imbalance of power and happen often throughout time (Zych et al., 2021). In addition to traditional bullying, which occurs via physical, verbal, and social tactics, cyberbullying has increased in frequency as more people communicate online. Because it occurs around-the-clock, cyberbullying—a dangerous kind of online victimization—is sometimes seen to be more widespread than conventional kinds of victimization (Zych, et al., 2020). It involves using text, social networking sites, or other online platforms to cause injury or discomfort to another person. The word "bullying" has been used in the past to refer to the victim's experiences, the bully's acts, or the "bully-victim's" (a person who is both a victim and a bully) experience. The experience of victims of verbal, physical, social, and cyberbullying is the exclusive focus of this research (Halliday et al., 2024).

One essential and basic goal for the whole development of a student's personality is learning to coexist (Olweus & Limber, 2010). According to research, bullying and cyberbullying in schools disrupt harmonious coexistence (Smith, 2013). Over the last several decades, research has examined the advantages of emotional competences for classroom cohabitation, as well as their beneficial effects on preventing bullying and improving the wellbeing of teenagers (Marikutty & Joseph, 2016). Intervention strategies have been created to stop both conventional and cyberbullying in order to address this issue (Ttofi & Farrington, 2011). However, it is uncommon to find bullying prevention programs that include elements of teenagers' subjective well-being and concentrate on social-emotional development. By assessing the influence on teenagers' well-being over a six-month period as well as the efficacy of a social-emotional education program to foster coexistence in the classroom in connection to cyberbullying behaviors, this research aims to close these gaps (Schoeps et al., 2018).

The research explores the significant effects that cyberbullying and harassment have on teenagers' mental and emotional health. Due to the widespread use of social media and digital platforms in recent years, cyberbullying has become a major issue among teenagers. The goal of the research was to thoroughly

investigate the complex impacts of cyberbullying and cybervictimization on several facets of teenagers' wellbeing (S Parmar, 2024). The study's backdrop stems from the increasing awareness of the frequency and seriousness of teenage cyberbullying episodes. Cyberbullying is widespread and may be unavoidable for victims since, in contrast to conventional forms of bullying, it takes place online and crosses geographical borders. Adolescents may encounter a variety of harmful behaviors, such as harassment, intimidation, rumor spreading, and exclusion, via a variety of online platforms, including social media, messaging applications, and online forums.

Cyberbullying is becoming a widespread and concerning issue in the quickly changing digital world, especially among high school students (Achuthan et al., 2023). Teenagers are especially susceptible to this new kind of hostility since they spend more time connected on social media and other online platforms (Hamilton et al., 2023). Cyberbullying goes beyond the bounds of conventional bullying and is characterized as the frequent and deliberate aggressive conduct against others via the use of electronic communication technology (Hoareau et al., 2021). It may strike without warning, encroaching on victims' lives even in the ostensibly secure surroundings of their own homes, leaving them feeling helpless and confined. Parents, educators, and mental health experts are very concerned about the pervasiveness of cyberbullying and its potential for catastrophic psychological repercussions. This highlights the urgent need for a thorough understanding of this digital conundrum (Gohal et al., 2023). Numerous research has looked at the frequency, risk factors, and effects of cyberbullying among high school students (Cosma et al., 2020). Nonetheless, further study in other cultural situations, like Egypt, is required, as is a more thorough analysis of the particular risk factors and correlations between stress and mental health.

The research "Cyberbullying as a Threat to Adolescent Well-Being: A Study on Emotional and Behavioural Outcomes" is significant because it examines a relevant societal problem that today's kids face. Cyberbullying has become a widespread and detrimental issue with far-reaching effects as internet communication becomes an essential part of teenage life. This research is essential to comprehending the ways in which cyberbullying affects teenagers' emotional and behavioral development, including elevated anxiety, sadness, poor self-esteem, social disengagement, and even violent or self-destructive behaviors. The study adds to the expanding corpus of information required for parents, educators, legislators, and mental health specialists to develop successful intervention and preventive plans by emphasizing these results. Furthermore, in order to safeguard and improve teenagers' general well-being in the digital age, the research emphasizes the significance of developing digital empathy, resilience, and secure online surroundings.

2 LITERATURE REVIEW

(Carvalho et al., 2018) examined the connections between risky actions and emotional symptoms in cyberbullying and comprehend how these elements function as indicators of wellbeing. This cross-sectional research is based on the World Health Organization's 2014 Health Behavior in School-Aged Children (HBSC/WHO) survey. While more males reported participating in cyberbullying as both bullies and victims, more girls reported participating in cyberbullying as victims. In comparison to females, boys reported greater levels of well-being but more risky behaviors, such as drug usage and fighting, whereas girls reported more emotional symptoms, including fear and despair. Cyberbullies and victims of cyberbullying reported drinking more alcohol than victims of cyberbullying, and cyberbullies also reported using drugs more often than victims of cyberbullying. Regardless of gender, emotional symptoms and age were predictive of well-being; for girls, participation in fighting was a predictor of well-being.

(Tao et al., 2024) current research looked at how cognitive-emotional regulation techniques differed by sex in their ability to moderate the relationship between teenage cyberbullying encounters and well-being outcomes. We examined data from 5151 teenagers at 30 secondary schools in Hong Kong (mean grade level = 8.68, SD = 1.98; female = 53.9%). The findings showed that whereas only the experience of perpetrating cyberbullying was adversely correlated with the well-being of teenage males, the experiences of victimization, bystander, and perpetration of cyberbullying were all negatively correlated with the well-being of teenage girls.

(Vieta-Piferrer et al., 2024) purposed of this research was to used psychometric network analysis to investigated the potential relationships between these dimensions. Waves 1 and 2 of two cross-lagged network studies and a longitudinal network analysis were carried out on 888 students from five secondary educational institutions, ages 12 to 16 ($M=12.61$; $SD=1.79$). Overall life satisfaction (OLS) and the different dimensions of life satisfaction were shown to be significantly correlated in the findings of both cross-lagged networks at both time periods. This supported OLS's pivotal position in the network architecture of teenage well-being. At both time periods, "happy" was the emotion exhibiting the greatest degree of effect and impact in relation to the affective component of SWB.

(Ramadan et al., 2024) purposed of this research was too looked at the prevalence, risk factors, and relationships between cyberbullying and stress and mental health among high school students in Zagazig, Egypt. Using a random sample approach, 562 high school students participated in a cross-sectional survey. A self-administered questionnaire including the General Health Questionnaire (GHQ-12), Perceived Stress Scale (PSS-10), and Cyberbullying Scale was used to gather the data. The data was analyzed using multiple regression, mediation, logistic regression, independent samples t-tests, and descriptive statistics. 38.3% of people were victims of cyberbullying, with 20.6% having had two or three instances and 4.1% having experienced four or more. Cyberbullying was more common among female students, those under the age of 18, those with poorer academic proficiency, and those who used the internet more often each day.

2.1 Hypothesis Development

- **H1: Exposure to cyberbullying would have a positive and significant effect on aggression levels in adolescents.**

(Schulz et al., 2025) purposed of this research was to investigated how cyberbullying behavior at school was influenced by several characteristics, including age, exposure to violent media, parental communication quality, internet access, sex, and sibling relationships. also analyzed how these dynamics could have changed as a result of the COVID-19 pandemic. looked at the same group of teenagers before and after the epidemic using a panel dataset. With a focus on the dynamics brought about by the COVID-19 epidemic, the study sought to determine correlations between the chosen parameters and both cyberbullying victims and perpetration. In retrospect, COVID-19, acting as a kind of natural experiment, has given us a rare chance to study the impact of a worldwide incident that has compelled significant behavioral changes on the ongoing problem of cyberbullying in middle schools.

This research (Wu et al., 2024) tested the moderating influence of teacher support and the mediating effect of rage dysregulation in order to identify the mechanism behind the link between seeing family violence and teenage cyberbullying perpetration. The direct and indirect impacts of seeing family violence on teenage cyberbullying via rage dysregulation as a mediator and perceived teacher support as a moderator were evaluated using structural equation modeling. The findings indicated that being exposed to family violence at baseline was a strong predictor of teenage cyberbullying at T3, and that this relationship was somewhat moderated by anger dysregulation at T2. For teenagers who felt more supported by their teachers, the correlation between subsequent anger dysregulation and seeing familial violence was greater.

- **H2: Exposure to cyberbullying will have a positive and significant effect on levels of anxiety and depression in adolescents.**

This research (Zeng, 2025) used statistical analysis and questionnaire surveys to experimentally examine the connection between cyberbullying and mental health among teenagers in Luzhou City, as well as the underlying mechanism of this phenomenon. The findings showed a strong positive correlation between the frequency of being a victim of cyberbullying and sadness and loneliness, suggesting that cyberbullying has a considerable negative predictive impact on teenage mental health. Secure attachment ties seem to be protective factors against psychological risks, as shown by the strong negative associations between peer and parental attachment and loneliness and sadness.

(D Desi, 2025) purposed of this research was to investigated the connection between cyberbullying and the DAS (depression, anxiety, and stress) levels of teenagers in Salatiga City. Using a descriptive correlational technique, a quantitative method was used. Two phases of questionnaires were used to gather data: the Depression, Anxiety, Stress Scale⁴² (DASS-42) was used to evaluate psychological

symptoms, and the Olweus Bully/Victim Questionnaire-Revised Version (OBVQ-R) was used to gauge exposure to cyberbullying. 151 teenagers in all took part in the research, which ran from January 17 to January 29, 2024. Significant correlations between cyberbullying and stress ($p = 0.000$), anxiety ($p = 0.001$), and depression ($p = 0.000$) were shown by statistical analysis using the Chi-Square test. In conclusion, victims of cyberbullying experience differing degrees of stress, anxiety, and sadness. Teenagers who are impacted experience severe mental discomfort as a result of its enduring and difficult-to-avoid character.

➤ **H3: Anxiety and depression mediate the relationship between exposure to cyberbullying and aggression levels.**

This study (Ding et al., 2025) examined the mediating role of depression along with hostile attribution bias in relation to peer conflict and cyberbullying perpetration, and the moderating role of gender, in order to provide a fresh understanding of teenage cyberbullying perpetration. It is based on the General Aggression Model and the General Strain Theory. The research used a two-wave survey methodology and included 900 teenagers (Male = 13.45, females = 452). Self-reported questionnaires were used to gather data on peer conflict, depression, hostile attribution bias, and cyberbullying perpetration. These results not only conceptually broaden the scope of the General Strain Theory and the General Aggression Model, but they also provide helpful recommendations for stopping and dealing with teenage cyberbullying.

(Alghamdi et al., 2024) goal of the presented research was to assess how common cyberbullying has been among Jeddah university students and how it relates to stress, anxiety, and depression. 877 Jeddah university students were given an online questionnaire as part of this cross-sectional investigation. The Depression, Anxiety, and Stress Scale-21 Items (DASS-21) and the Revised Cyberbullying Inventory scale (RCBI-II) were used to measure cyberbullying and cybervictimization. 54% of students said they had been the victim of cyberbullying, while 73% of students said they had been the bully themselves. Both men and women reported high rates of cyberbullying, but there was no discernible correlation between gender and cyberbullying. Significant depressed symptoms were also reported by the majority of individuals ($n = 498$). Cyberbullying and cybervictimization were shown to be significantly positively correlated with stress, anxiety, and depression.

➤ **H4: Gender will moderate the relationship between exposure to cyberbullying and anxiety/depression, with the effect being stronger in females than in males.**

(Talwar et al., 2024) current research investigated how LON mediates the link between CYB behavior and self-esteem (SE), particularly among college students. Furthermore, the moderating influence of gender on CYB and SE behavior was also examined. 231 university students participated in this cross-sectional survey, which used a convenience sample approach. The contestants finished a self-report questionnaire that includes the UCLA LON Scale Version 3, Rosenberg's Self Esteem Scale-10, Cyber Victim and Bullying Scale, and Socio Demographic Profile Questionnaire. Hierarchical regression and structured equation modeling were used to examine the data. Easy When LON was present as the mediator, the correlation between SE and CYB was considerably diminished ($c' = -0.27$, $P = 0.000$), suggesting a partial mediation, according to mediation analysis. Stated differently, the impact of low SE on CYB was partly mediated by LON. A potentially significant moderation between gender, SE, and CYB behavior was found by hierarchical regression analysis (R^2 change = 0.028, $P = 0.001$).

This study's (Zhang et al., 2024) main goal was to look at how school adaptation affects the mental health effects of teenage bullying victimization and how gender differs in these effects. These results help bullied youth manage and treat mental health issues by providing parents and educators with a fresh viewpoint. The China Population Health Data Center's (PHDA) 2020–2021 Adolescent Health Theme Database served as the study's main source of data. High school students from sixteen cities in Shandong Province made up the study sample. SPSS 26.0 and AMOS 26.0 were used for descriptive statistics, reliability and validity testing, structural equation modeling, mediation analysis, and multiple group analysis. It has been shown that the school acts as a mediator between mental health, cyberbullying, and school bullying. Schools could have a bigger impact on women's mental health than on men's. Bullying on campus has a more detrimental effect on the mental health of women compared to cyberbullying, but for men, the reverse was true. The detrimental impacts of school and cyberbullying on teenage mental health may be lessened by improving adolescents' school adaption levels.

2.2 Research gap

A number of major knowledge gaps persist despite a wealth of literature on the psychological and behavioral effects of cyberbullying on teenagers. First off, despite the fact that numerous studies have examined the frequency and psychological effects of cyberbullying, few have combined multi-level frameworks that take into account both environmental (such as teacher support, family violence, and school adaptation) and individual (such as emotional regulation, self-esteem, and attachment styles) factors in a cohesive model. Furthermore, despite the fact that gender inequalities are often reported, no longitudinal research has been done to examine how these differences change over time or in various cultural and socioeconomic circumstances. The lack of research on mediating and moderating processes including aggressiveness, sadness, and anxiety that might aid in comprehending the ways in which cyberbullying affects teenage wellbeing is another gap. Additionally, the majority of research ignores the intricate interactions between various roles (victim, bully, bystander) and their combined consequences on mental health in favor of concentrating on victims or offenders alone. Lastly, few studies use sophisticated analytical methods to capture the reciprocal and dynamic interactions between variables, such as network or structural equation modeling. To create more thorough, evidence-based solutions that take into consideration the complex reality of teenage cyberbullying experiences, these gaps must be filled.

3 METHODOLOGY

3.1 Research design

The research methodology included a quantitative analysis to examine Cyberbullying as a Threat to Adolescent Well-Being: A Study on Emotional and Behavioural Outcomes. Data from a representative sample of 384 respondents was systematically collected and analyzed using a standardized technique to ensure statistical analysis. Data was gathered using a validated questionnaire that included Likert-scale questions to assess respondents' Exposure to cyberbullying, anxiety levels, Aggression level and Depression score. The research used SPSS, or statistical software for the social sciences, to examine the data. The suggested hypotheses were evaluated using AMOS (Analysis of Moment Structures) for structural equation modelling (SEM), which also looked at the relationships between the main variables.

3.2 Conceptual framework

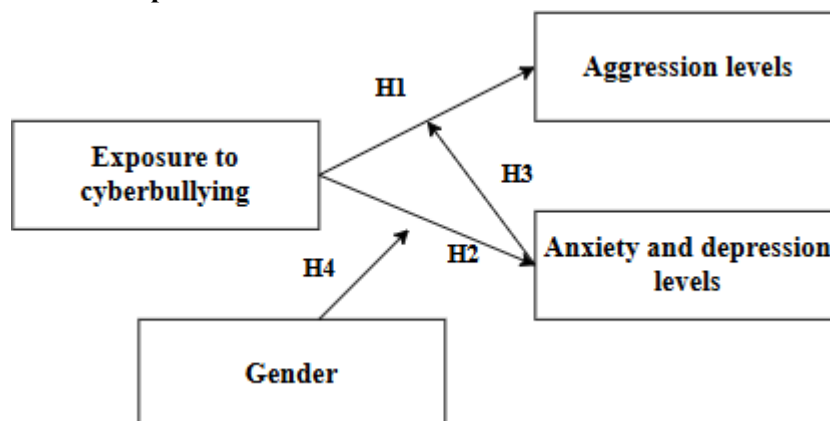


Figure 1 Conceptual frame work

The image's conceptual framework, which uses gender as a moderating variable, shows the proposed connections between teenage exposure to cyberbullying and its emotional and behavioral effects. Being involved in cyberbullying, whether as a victim or perpetrator, can result in serious psychological and behavioral problems, as the model shows that exposure to cyberbullying is directly associated with elevated levels of aggression (H1) as well as anxiety and depression (H2). Additionally, the framework suggests that emotional distress may act as a psychological conduit via which cyberbullying promotes violent inclinations, positing a mediating influence (H3) of anxiety and depression in the link between exposure to cyberbullying and aggressiveness. Furthermore, it is suggested that gender moderates the association between exposure to cyberbullying and anxiety/depression levels (H4), suggesting that the emotional toll of cyberbullying may differ for men and women, possibly as a result of variations in coping mechanisms,

social expectations, or emotional sensitivity. All things considered, this paradigm offers a thorough understanding of the intricate relationship between cyberbullying and teenage wellbeing, highlighting both direct and indirect consequences as well as the contextual role of gender.

3.3 Objectives

1. To examine the relationship between exposure to cyberbullying (experienced or witnessed) and aggression levels.
2. To assess whether anxiety and depression scores differ significantly between males and females who have experienced cyberbullying

3.4 Sample selection

A sample size of 384 respondents was used in the research to provide a representative dataset for analysis. will come from a stratified random sampling technique. studied the Cyberbullying as a Threat to Adolescent Well-Being: A Study on Emotional and Behavioural Outcomes.

3.5 Data collection

This research used a quantitative approach, including methodical data collection strategies to ensure accuracy and reliability. A structured questionnaire designed to evaluate the Cyberbullying as a Threat to Adolescent Well-Being: A Study on Emotional and Behavioural Outcomes was part of the main data collection strategy. In order to fully capture respondent opinions, the questionnaire includes crucial elements like credit approval experience, which is assessed using many Likert-scale comments. Exposure to cyberbullying, anxiety levels, Aggression level and Depression score were among the variables that participants were asked to rate. To ensure widespread participation and accessibility, the survey was distributed online via email, Google Forms, and fintech lending platforms. The primary data will be supplemented with secondary data from government publications, published research, and institutional records.

3.6 Measures

Data has been gathered with the help of a structured questionnaire. A questionnaire has been prepared using 5 Likert scale (Strongly Disagree to Strongly agree) where respondents will be asked to share their opinions regarding various research questions under study. A questionnaire has a set of both open-ended and closed-ended questions. Questions have been carefully crafted so as to gather meaningful information concerning identified research variables. There are five categories of respondents in the survey, and a separate questionnaire has been designed for each category of respondents. The below table show variables and no. items considered for the study.

S. No	Variable Name	No. Items
1	Aggression level	5
2	Experiencing cyberbullying	5
3	anxiety levels	5
4	depression score	5

4 RESULTS

Demographic variable

Table 1 Demographic variable

Demographic variable		Frequency	Percentage
Gender	Male	178	46.4
	Female	206	53.6
	Total	384	100
Age	13-15 Years	187	48.7
	16-18 Years	197	51.3

	Total	384	100.0
School level	9th Class	93	24.2
	10th Class	110	28.6
	11th Class	105	27.3
	12th Class	76	19.8
	Total	384	100.0
Location	Urban	125	32.6
	Semi urban	140	36.5
	Rural	119	31.0
	Total	384	100.0

The demographic profile of the participants in the research "Cyberbullying as a Threat to Adolescent Well-Being: A Study on Emotional and Behavioural Outcomes" included a total of 384 adolescents. The gender distribution revealed that 46.4% (n=178) were male and 53.6% (n=206) were female, demonstrating a little greater involvement of female students. The respondents' age distribution was almost balanced, with 48.7% (n=187) aged 13–15 years and 51.3% (n=197) aged 16–18 years. The largest percentage of participants were from the 10th class (28.6%), followed by the 11th class (27.3%), 9th class (24.2%), and 12th class (19.8%). Upon analysing the residential background, students were fairly equally dispersed throughout regions, with 36.5% (n=140) originating from semi-urban areas, 32.6% (n=125) from metropolitan areas, and 31.0% (n=119) from rural locales. The diverse demographic distribution enhances the representativeness of the research sample in examining the emotional and behavioural consequences of cyberbullying among teenagers.

Table 2 Internal Consistency and Convergent Validity

Constructs	Cronbach's Alpha	Composite Reliability	AVE
Exposure to cyberbullying	0.879	0.83553555	0.69683
Aggression level	0.897	0.8691799	0.79689
Anxiety levels	0.864	0.84385999	0.82085
Depression score	0.859	0.81695023	0.65312

The study of reliability and validity for the components in the research "Cyberbullying as a Threat to Adolescent Well-Being: A Study on Emotional and Behavioural Outcomes" indicates strong internal consistency and convergent validity. Cronbach's Alpha scores for all constructs—Exposure to Cyberbullying (0.879), Aggression Level (0.897), Anxiety Levels (0.864), and Depression Score (0.859)—exceed the acceptable threshold of 0.70, indicating strong internal consistency. Likewise, Composite dependability scores above 0.80 for all constructs, hence reinforcing the dependability of the measurement approach. The Average Variance Extracted (AVE) values satisfy the minimal threshold of 0.50, with all constructs—especially Anxiety Levels (0.82085) and Aggression Level (0.79689)—exhibiting

robust convergent validity. The findings confirm that the constructs used in the research are both trustworthy and valid for evaluating the emotional and behavioural effects linked to teenage exposure to cyberbullying.

Hypothesis development

Hypothesis	Relationship			Estimate	C.R.	Sig. Value	P-Value	Results
H1	Exposure to cyberbullying	---->	Aggression level	0.73	12.358	***		Accepted
H2	Exposure to cyberbullying	---->	Anxiety level	0.74	12.15	***		Accepted
	Exposure to cyberbullying	---->	Depression score	0.84	13.458	***		Accepted
Mediating								
H3	Exposure to cyberbullying	---->	Anxiety level	0.55	12.818	***		Accepted
	Exposure to cyberbullying	---->	Aggression level	0.68	19.48	***		Accepted
	Anxiety level	---->	Aggression level	0.23	6.487	***		Accepted
	Exposure to cyberbullying	---->	Depression score	0.63	15.768	***		Accepted
	Exposure to cyberbullying	---->	Aggression level	0.63	17.097	***		Accepted
	Depression score	---->	Aggression level	0.275	7.476	***		Accepted
Moderating								
H4	Z Exposure to cyberbullying	---->	Z Aggression level	0.522	12.911	***		
	Z Gender	---->	Z Aggression level	0.28	6.945	***		Accepted
	Interaction (Z Exposure to cyberbullying*Z Gender)	---->	Z Aggression level	0.15	3.795	***		

- **H1: Exposure to cyberbullying would have a positive and significant effect on aggression levels in adolescents.**

The results demonstrate a significant and positive correlation between exposure to cyberbullying and aggressiveness levels in adolescents. The route estimate of 0.73, accompanied by a critical ratio (C.R.) of 12.358 and a p-value of *** ($p < 0.001$), substantiates that more exposure to cyberbullying correlates with elevated levels of aggressiveness. Consequently, H1 has been confirmed, supporting the hypothesis that exposure to cyberbullying results in increased aggressive behaviour among adolescents.

➤ **H2: Exposure to cyberbullying will have a positive and significant effect on levels of anxiety and depression in adolescents.**

A strong positive relationship is present between exposure to cyberbullying and anxiety levels, shown by a path estimate of 0.74 and a critical ratio of 12.15, which is statistically significant (***). This indicates that when teenagers encounter elevated instances of cyberbullying, their anxiety levels also rise dramatically. Consequently, H2 is validated, affirming the adverse emotional effects of cyberbullying on teenage anxiety. A substantial and significant positive relationship is present between exposure to cyberbullying and depression scores. The estimate is 0.84, with a C.R. of 13.458, and the significance level is significantly below 0.001 (***). This suggests that exposure to cyberbullying strongly predicts increased depressive symptoms in adolescents. Therefore, the hypothesis is affirmed.

➤ **H3: Anxiety and depression mediate the relationship between exposure to cyberbullying and aggression levels.**

Mediation study indicates that anxiety substantially mediates the relationship between cyberbullying exposure and aggressiveness levels. Exposure to cyberbullying considerably increases anxiety (estimate = 0.55, C.R. = 12.818, ***), which subsequently has a significant impact on aggressiveness (estimate = 0.23, C.R. = 6.487, ***). This substantiates the mediation function of anxiety in the relationship between cyberbullying and aggressiveness. Depression is identified as a substantial mediator. Exposure to cyberbullying is a substantial predictor of depression (estimate = 0.63, C.R. = 15.768, ***), and depression has a significant association with aggressiveness (estimate = 0.275, C.R. = 7.476, ***). These data validate that depression mediates the association between cyberbullying and aggression, hence strengthening the emotional-behavioural connection.

➤ **H4: Gender will moderate the relationship between exposure to cyberbullying and anxiety and depression.**

The influence of gender on the relationship between cyberbullying exposure and aggressiveness levels is statistically significant. The interaction term (ZExposure to cyberbullying * ZGender) exhibits a path estimate of 0.15, with a critical ratio (C.R.) of 3.795 and significance at the $p < 0.001$ level (***). Furthermore, both exposure to cyberbullying (estimate = 0.522, C.R. = 12.911) and gender (estimate = 0.28, C.R. = 6.945) exhibit strong associations with violence. The data indicate that gender influences the impact of cyberbullying on aggressiveness, suggesting that the intensity of this association differs between male and female adolescents.

5 DISCUSSION

This research offers important insights into the emotional and behavioural effects of cyberbullying on adolescents, emphasising its crucial influence on psychological well-being. The results indicate that exposure to cyberbullying, whether directly experienced or seen, is significantly associated with heightened levels of anger, anxiety, and depression in adolescents. The relationships are substantiated by elevated path estimates and statistically significant findings, indicating that the psychological impacts of cyberbullying are both substantial and pervasive. The sample's demographic distribution, with equitable representation across age, gender, academic level, and region, improves the generalizability of the findings. The research indicates that emotional reactions, including anxiety and despair, serve as mediators between exposure to cyberbullying and violent behaviour. This indicates that teenagers subjected to cyberbullying may first internalize their anguish, which then appears as external aggressiveness. The mediating effects underscore the need for early psychological intervention to mitigate emotional disorders prior to their escalation into behavioural difficulties. Additionally, the moderating effect of gender on the association between cyberbullying and aggressiveness was shown to be substantial. Female teenagers exhibited a somewhat more pronounced correlation between cyberbullying and emotional repercussions, highlighting the need for gender-sensitive methodologies in both preventive and assistance initiatives.

These results correspond with the current research, indicating that teenage females may internalize emotional distress more profoundly, whilst boys may externalize it in distinct ways. The research emphasizes the complex and interrelated impacts of cyberbullying, indicating that emotional well-being and behavioural reactions are profoundly interwoven. The findings need a holistic strategy that incorporates emotional education, digital safety, and counselling services at educational institutions to alleviate the detrimental effects of cyberbullying.

6 CONCLUSION

The research underscores that cyberbullying constitutes a major and increasing danger to adolescents' well-being, resulting in considerable emotional and behavioural repercussions. The empirical evidence demonstrates that adolescents subjected to cyberbullying have increased levels of anxiety, sadness, and violence. These results are both direct and mediated by emotional reactions, suggesting that unresolved psychological discomfort may result in behavioural maladjustments over time. The confirmation of all four hypotheses confirms the strength of the study's conceptual model, offering a well-supported elucidation of the impact of cyberbullying on adolescents. The mediating effects of depression and anxiety underscore that emotional elements are essential connections between victimisation and violent behaviour. Proactively addressing these emotional results may diminish the probability of behavioural repercussions, such as heightened hostility or social disengagement. The moderating influence of gender provides further complexity to the results, indicating that female adolescents may experience more emotional repercussions from cyberbullying than their male counterparts. This underscores the need for gender-sensitive therapies that take into account varying coping strategies and emotional reactions. The report advocates for the immediate execution of organised interventions at educational institutions, including awareness initiatives, peer support frameworks, digital citizenship instruction, and readily available mental health resources. By cultivating emotional resilience and encouraging ethical online conduct, schools, parents, and legislators may together mitigate the detrimental effects of cyberbullying. This study enhances the knowledge of how digital contacts influence teenage development and emphasises the need of proactive steps to protect their mental and emotional well-being in a progressively digital environment.

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