

Association Between Cyberbullying Victimization and Loneliness Among Adolescents: The Role of Coping Strategies and Emotional Intelligence

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ABSTRACT

Cyberbullying may create psychological well-being problems and several coping strategies can augment the strength between cyberbullying and psychological well-being issues. The current study endeavors to investigate the association between cyberbullying victimization and feelings of loneliness among adolescents and also the role of coping strategies and emotional intelligence between cyberbullying and loneliness. Various coping strategies can alleviate the strength between cyberbullying victimization and loneliness. Through a survey questionnaire, data were collected from 451 adolescents in India. The findings reveal that coping strategies (seeking support, active coping, and avoidant coping) diminish loneliness and act as a mediator between cyberbullying victimization and loneliness. Seeking support and active coping strategies ease the loneliness resulting from cyberbullying victimization, while avoidant coping strategy is found to be non-significant. Emotional intelligence is found to alleviate the negative effects of cyberbullying on loneliness. The research can augment existing knowledge of cyberbullying and the mental well-being of adolescents concerning loneliness and emotional intelligence. The contributions of the study on the linkages among these variables and the psychological well-being concerns of adolescent victims of cyberbullying are highlighted.

KEYWORDS

Adolescent, Coping Strategies, Cyberbullying, Emotional Intelligence, Loneliness

INTRODUCTION

Cyberbullying (CB) is a rising public concern in modern times (Straus, 2016; Zhang & Leidner, 2018). The CB Research Centre (Patchin, 2016) carried out a countrywide survey of over five thousand adolescents in the United States and reported that approximately 34 percent of the participants were cyberbullied and approximately 12 percent cyberbullied others. CB is the intentional, repetitive, and

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aggressive employment of computers, cell phones, and other electronic gadgets to harm people (Smith et al., 2008). With the increased availability of low-cost internet connectivity and social media, CB has increased dramatically in India. According to a study conducted by Norton Cyber Security Insight report (Gaur, 2021), almost 8 out of 10 people in India are victims of various forms of CB. Around 63 percent of them were subjected to online abuse and insults, and 59 percent were the target of false rumours and gossip that degraded their image. According to the same survey, India has more CB victims than Australia and Japan in the Asia Pacific region. Today, social media platforms are widely used as one of the most popular venues for social behaviours, particularly among youth (Shukla & Bhasin, 2022). The prominent platform for CB is social media, and thus the current study concentrates on CB through social networking sites. Instagram is the most popular social media platform, with 76.50% people in India having an Instagram account (Reportal, 2022). Research reported that 42 percent of adolescents have experienced CB on Instagram in the UK. In comparison, 37% of Facebook users and 31% of Snapchat users said they liked the app. Surprisingly only 9% of respondents said they have encountered CB on Twitter (Cook, 2022). However, the majority of CB research has been undertaken on the samples of middle school kids, with fewer studies concentrating on CB among university students (Kowalski et al., 2019).

Prior studies have recognized several kinds of CB, including trolling (e.g., insulting comments on the web; Slonje et al., 2013), grieving (e.g., bullying through online gaming communities), sexting (Willard, 2007), online harassment, impersonation (e.g., posing as the target), exclusion (e.g., blocking from the network), outing (e.g., sharing individual's information), online intimidation (e.g., aggressive messaging), and flaming (an adversarial style of online communication). The current study focused on written forms of CB, such as flaming and online intimidation, which are more significantly linked to the global CB frequency (Nocentini et al., 2010).

Generally, CB is interrelated with school bullying (Beran & Li, 2007; Juvonen & Gross, 2008). CB has been considered a serious concern for parents, teachers, and health practitioners. Activity such as posting publicly available material on the Internet, receiving threats or harassing communications over the Internet, and others are examples of CB (Patchin & Hinduja, 2006). Unlike traditional bullying, CB can happen at any time and from anyone, and the perpetrator's name may not be revealed (Patchin & Hinduja, 2006). As a result, CB may become more common, with more dire repercussions for the victim. CB has been shown to have a significant impact on adolescents, including a higher risk of depression, anxiety, and suicidal thoughts (Yuchang et al., 2019), as well as physical and psychogenic problems such as sleep problems, headaches, and lack of appetite (Kowalski & Limber, 2013). The initiation of substance use, traditional and CB perpetration, and delinquency are all linked to CB (Estévez et al., 2020).

Having been a victim of CB is consistently the strongest predictor of experiencing CB (Kwan & Skoric, 2013). The occurrence of CB victims ranges from 3.3 percent (Renati et al., 2012) to 7 percent (Kowalski & Limber, 2007). Negative consequences are reported more by CB victims as compared to traditional victims (Kowalski & Limber, 2013). Therefore, it is important to investigate the CB victims to understand the psychological conditions of the incident.

CB has been studied in terms of depressive sentiments, self-confidence, and intelligence (Diden et al., 2009) as well as conventional CB and empathy (Topçu, 2008), and psychiatric signs such as antagonistic emotions and psychological signs (Tynes & Giang, 2009). Cyberbullies are those who require social support, experience sad emotions, and are inclined to consume drugs, according to previous studies (Srabstein & Piazza, 2008). Additionally, cyber victims have been shown to experience sadness, despondency, and dissatisfaction (Ybarra, 2004), as well as difficulties adjusting to their new surroundings (Patchin & Hinduja, 2008). Due to the depressed feeling, it is reasonable to experience loneliness (LN) (Izgar, 2009) among CB victims. Even though numerous variables influence CB, recent studies suggest that research on the relationship between CB and LN has been ignored. This research is significant because it fills a gap in the associated literature.

The Conservation of Resources (COR) Model (Hobfoll, 1989) to understand stress is one lens for investigating the alleviators in the links between mental health and CB. As per COR theory, any person strives to preserve and defend resources and perceives any prospective or actual loss of those resources as a threat. Taking into consideration physical, psychological, and sentimental health as resources (Lee & Ok, 2014), the theory can help us better understand how CB victims preserve these resources by different coping behaviours in response to threats posed by emotional demands (Kim & Agrusa, 2011). Understanding how cyberbullied victims cope with the stress of emotional exhaustion from cyberspace is critical for any user to preserve the psychological and mental health of social media users more efficiently and effectively (Teoh et al., 2019).

Coping Strategies (CS) have been demonstrated to reduce the harmful effects of CB on well-being, either by reducing immediate stress or averting long-term implications (Machmutow et al., 2012). CS can be categorized on account of responses to CB (Perren et al., 2012). The most popular coping theories are the approach-avoidance model (Roth & Cohen, 1986) and the transactional model (Lazarus & Folkman, 1984). Besides conventional CS, CB victims might also manage this issue through cyber-specific technical solutions (for instance, blocking the sender, and reporting abuse buttons) (Livingstone et al., 2011; Stacey, 2009).

Coping serves to remove or change a problem by counteracting its harmful nature, which assists the person in controlling his or her emotional response (Pearlin & Schooler, 1978). Despite the important role of CS, studies examining victims' CS as a way of coping with emotional and mental burnout caused by CB are sparse. It would be interesting to find the answer, what CS do victims of social media bullying use, and how effective are CS at reducing the harmful effects of victimization? (Chan et al., 2021).

EI plays a critical role in social adjustment (Mayer et al., 2008). Especially, kids with a high EI tend to achieve fine academic records and form positive social associations, whereas they are not expected to disobey school rules, for instance, expulsion from school (Mavroveli et al., 2011; Petrides et al., 2004). Yet, not many research works investigated the link between EI and CB. Self-beliefs about own emotional skills are central links to the CB field. The dimension of EI is worth considering for comprehending its link with CB and LN, e.g., employment and control of emotions are interconnected (Schutte et al., 1998). Emotions play an essential role in bullying behaviour (Arsenio & Lemerise, 2001), and a complete understanding of bullying can be accomplished when self-beliefs concerning own emotional processes are exhaustively investigated.

Therefore, the role of emotional intelligence (EI) between CB victimization and loneliness (LN) needs to be further examined. Indeed, EI is the capability to respond to emotional, societal, and environmental circumstances. CB victimization experience may create undue stress which has dangerous effects on individuals and might lead to LN. However, individuals can use EI as a coping strategy alternatively to deal with LN. Thus, this study proposes that possessing a high degree of EI gives the victims the capability to manage LN better.

The present research aims to bridge the aforementioned literature gaps by observing the relationship between CB victimization and LN among children and adolescents. Particularly, we are interested in LN as numerous studies have established the association between CB victimization and social anxiety (Coelho & Romão, 2018; Dempsey et al., 2009; Fahy et al., 2016; Wigderson & Lynch, 2013); no study could be found in our knowledge establishing the association between CB and LN.

Hence, based on the aforementioned assertions, we propose a framework encapsulating the linkages between CB and LN, and the role of CS and EI in this association.

Thus, the research intends to scrutinize: (1) the association between CB victimization and LN, (2) the mediation impact of CS and EI between CB and LN, and (3) the most effective coping strategy in mitigating the impact of CB on LN.

In a few Asian nations including India, CB research has been developing slowly. However, research on CB in India is essential because India ranks 3rd in global internet use (Internet Live Stats, 2015).

Comprehending internet usage level is crucial since access to the internet is a risk factor connected with CB (Park et al., 2014; Wright & Li, 2013). In one of the few research works carried out on CB in India, Wright et al. (2015) observed that Indian adolescents had a larger number of cases of CB victimization than those from Japan and China. These results further highlight the significance of studying Indian adolescents' involvement in CB and aggression.

The current research contributes to the literature in three ways. Firstly, the proposed conceptual model highlights the effects of CB victimization on LN. Secondly, this study assesses the potential role of CS and EI in dealing with LN. Third, this study determines the best ways of managing LN due to CB victimization.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Cyberbullying (CB) and Loneliness (LN)

The Covid-19 crisis has affected individuals globally and norms like social distancing and school closure may lead to augmented social isolation and LN (Loades et al., 2020; Smith and Lim, 2020). Furthermore, LN is linked to different types of issues, for example, untimely death (Cacioppo & Cacioppo, 2018; Goosby, 2013; Loades et al., 2020), substance use (Segrin, 2018), and depression and anxiety (Okruszek, 2020). Although social/physical distancing might not inevitably result in LN, the current crisis has escalated the occurrence of LN (Bu et al., 2020). Consequently, there is a necessity to examine the LN of children and adolescents, particularly during the pandemic (Loades et al., 2020).

Internet usage is continuously rising and the violence against children is also increasing (Dong et al., 2020; Fore, 2020). The disturbance of students' lives and the closing of schools have put them at a bigger risk of exposing them to violence, for example, CB and domestic violence (Babvey et al., 2020; Fore, 2020). CB involves actions meant to damage others who can't protect themselves through information communication technologies or in cyberspace (Ansary, 2020; Langos, 2012). CB is escalating because the young generation is deeply involved in the Internet and its intensive usage can make CB worse than before. The latest global survey specifies that the occurrence of CB is growing globally (Zhu et al., 2021). Cultural variations and access to the Internet may be the causes of the diversity, as well as the computation techniques of CB can also add to such occurrence variations (Heu et al., 2019; Zhu et al., 2021).

Han et al. (2021) studied the association of CB with LN in rural China and found that CB victimization is related to a high LN and CB may result in well-being problems. CB may result in several psychological well-being, social, and behavioral issues (Kwan et al., 2020), and LN might be one of those consequences (Jiang et al., 2020; Segrin et al., 2012). Taking into consideration the double impact of CB on adolescents and children and the current crisis, there is a necessity to scrutinize the linkages between CB victimization and LN.

H1: Cyberbullying victimization has a positive relationship with loneliness.

2.2 The Mediating Role of Coping Strategies (CS) Between Cyberbullying (CB) and Loneliness (LN)

CS plays an important role in handling violence experiences and psychological well-being concerns (Cauberghe et al., 2020; Mariani et al., 2020; Yang, 2021). CS (aka "coping skills/styles") symbolizes the explicit behavioral or mental endeavors aimed to reduce stress and hurt due to a specific reason (Smith et al., 2016).

Comprehending a CB victim's different behaviors in coping with stress is critical to proficiently protecting the mental and emotional well-being of victims (Teoh et al., 2019; Jung & Yoon, 2016).

Despite the vital roles of CS, studies investigating CS as ways to mitigate the impact of CB on LN are scanty. A few research works (Hu & Cheng, 2010; Tsaur & Tang, 2012) examined coping

with various stressors such as anxiety (Tsaur & Tang, 2012), and female employees' stress. Lately, qualitative research was performed by Teoh et al. (2019) on CS and proposed a theoretical framework that included CS as a moderator between emotional labor and its consequences. Conversely, inadequate quantitative research works have been carried out that scrutinize the mediation impact of CS between CB and LN. It is also recommended that future studies should discover whether CS will serve as alleviators in diverse sectors.

The three CS are: (i) seeking support (SS)—requesting advice or assistance from others (Fothergill et al. 2004); (ii) active coping (AC) — taking active steps to eliminate stress (de Rijk et al., 1998; Eatough & Chang, 2018; Hu & Cheng, 2010); (iii) avoidant coping (AV)—redirecting concentration from stress (Ito and Brotheridge, 2003). Overall, prior studies provide support for the prospective impact of AV, AC, and SS on victims' LN, but the results have been relatively varied, given diverse study subjects and stressor types. It is not clear yet which particular coping strategy is the most effective in reducing the victims' LN. The current study has focused on how the coping strategy plays a role in diminishing the LN experienced by CB. Additionally, this is the better coping strategy that works between CB and LN. Hence, the mediation model has been tested.

To verify the mediation impact of CS between CB and LN, the following hypotheses have been established:

H2: Coping strategies serve as a mediator between cyberbullying victimization and loneliness.

2.3 The Mediating Role of Emotional Intelligence (EI) Between Cyberbullying (CB) and Loneliness (LN)

CB impacts youth development negatively and is usually linked to numerous mental issues. Several scholars have started to examine personal resources that assist in handling CB and hence these resources help protect the victims (Chen et al., 2017). Such personal resources can reduce the negative impact of CB and might incorporate EI. EI is a combination of interconnected skills and capabilities that facilitate interpreting, accepting, as well as articulating sentiments; creating sentiments for supporting thinking; understanding, and managing feelings (Grandey & Gabriel, 2015; Guy & Lee, 2015; Mayer & Salovey, 1997).

An individual with a high EI is expected to be conscious of his/her feelings and to articulate and control emotions more efficiently vis-à-vis an individual with a low EI and also report low emotional complexity (Resurrección et al., 2014). Numerous research works demonstrate that EI is significant in mental regulation in adolescence (Baroncelli & Ciucci, 2014; Resurrección et al., 2014). Numerous research works reveal that adolescents with a high EI would experience positive social relations and enhanced mental adaptation such as better CS than adolescents with a low EI (Baroncelli & Ciucci, 2014).

So far, merely a small number of studies examined the direct link between EI and CB. A negative relationship between EI and bullying among English primary students was found by Mavroveli and Sánchez-Ruiz (2011). Kokkinos and Kipritsi (2012) observed that EI has a negative association with bullying among Greek primary students. Taking into account numerous components of EI, Lomas et al. (2012) established that the awareness of others' feelings was negatively connected to bullying in a small sample of Australian adolescents.

So far, just a few studies have investigated whether EI assists in alleviating the negative outcomes related to CB. Research shows that adolescents with a lower level of EI were frequently the CB victims than adolescents with a higher level of EI. Baroncelli and Ciucci (2014) also reported that adolescents who are weak in recognizing, articulating, and controlling feelings are more prone to be victims of CB.

Literature has revealed that EI is a significant factor in protecting the negative outcomes of CB victimization because EI can shield psychological issues as a positive coping mechanism (e.g., Davis & Humphrey, 2012). Prior research works have established that EI acts as a moderator in the

association between CB victimization and its consequences, hinting that enhancing EI is a potential method of diminishing the harmful outcomes of victimization (Elipe et al., 2015). Lastly, EI served as a moderator between different life stressors and psychological well-being in a sample of adolescents in a study by Davis and Humphrey (2012). The above studies have also emphasized that ways connecting EI to superior psychological well-being are compound and recommended further studies. Despite the growing attention on the EI—LN link among adolescents, the role of EI in safeguarding in opposition to the impact of CB on LN has not yet been inspected. The current research bridges this gap.

Thus there is a strong need to investigate whether EI mediates the association between CB victimization and LN. Accordingly, we hypothesize that:

H3: Emotional Intelligence serves as a mediator between cyberbullying victimization and loneliness.

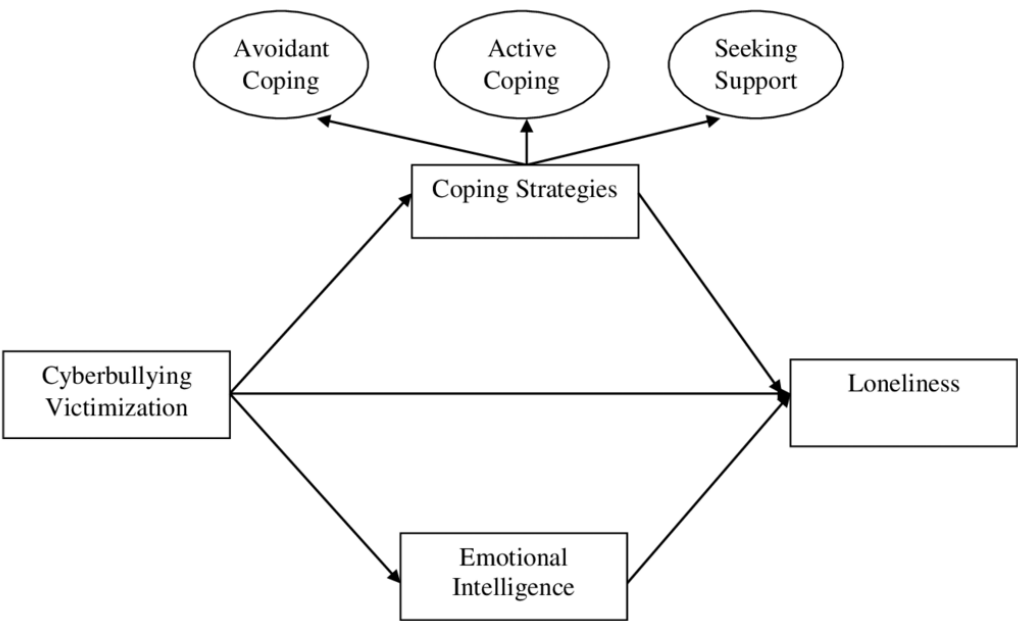
Based on the above discussion and formulated hypotheses, this study proposes that due to increased usage of the Internet by the young, there might be a rise in CB victimization along with LN. Furthermore, CS may decrease the relationship between CB and LN. The conceptual model presenting the potential linkages is shown in Figure 1.

3. METHODS

3.1 Sampling and Participants

The data was collected from 451 children and adolescents from India, with ages varying from 9 to 15 years old. The convenience sampling technique was used. One high school, one middle school, and one primary school were randomly selected from the list of schools within the district with the assistance of the local district education. Every school principal and teacher gave their consent to permit their students to take part in the survey. Consent was also obtained from children and adolescents, and their parents before they took part in the survey.

Figure 1. Proposed model



Before school recruitment, the study was approved by the ethics committee from the authors' universities. Schools were initially contacted for a survey by sending an email to the school principals. The email described the purpose of the study, how students could participate, and what they would be expected to do. Two schools failed to respond to the initial email. After the three school principals expressed an interest in the study, a meeting was set up with school principals and teachers to discuss the study in more detail. All school principals and teachers agreed to allow their students to participate in the study. Consent documents were sent home with children, and these were returned to their teachers within the next month. The adolescents included in this study were those who had parental permission.

Taking into consideration, the inadequate cognitive capability of young kids below standard three, the study covered the entire standard 4, 5, 6, and every high school and middle school student in the three selected schools. Children and adolescents were from the Madhya Pradesh state of India. Students were from mostly middle-class backgrounds. Data were collected from Jan—March 2022. To keep it consistent with students' lessons, the language used in the questionnaire was English.

All schools were English medium schools in which all lessons were taught in English. Data were collected on separate days at each of the schools.

Parents accepted their child's participation as they believed that this research for detection of CB in their educational center was a beneficial initiative for the school quality of life of students, and teachers. Therefore, the assessment was carried out in classrooms during the normal school schedule, with guarantees of the participants' voluntariness and anonymity and with the written approval of the school authorities.

The questionnaires were completed during a 1-hour lesson, with the exact time dependent on the schedule of individual schools. The questionnaires were administered to the classes in sessions with one of the researchers and at least one teacher from the school present. All participants were encouraged to provide honest answers.

The questionnaire was distributed via online platforms. A link was posted to each student using e-mail as well as WhatsApp (a social media app), so the students could complete the survey independently. Firstly, we created a temporary WhatsApp group with assistance from the local coordinators and school authorities. The class teacher plays an exclusive and vital role in the Indian education system. One class teacher is dedicated to one class only within each school. The class teacher generally has the contact details of the students as well as their parents, and WhatsApp is a frequently used tool to communicate with students and their parents in India. Generally, there is a minimum of one WhatsApp group which includes the students, parents of each student, and the class teacher for each class. Consequently, the WhatsApp group is employed to distribute all the data concerning academic activities. So, the class teacher of each class shared the survey link in their WhatsApp group, and the students can fill out the questionnaire using their or their parent's cell phones.

The objectives of the research were described to the students and parents. When the students clicked on the link, the first page displayed the objectives of the research and the participants were informed that the entire process is anonymous and voluntary. Only those students who confirmed by pressing the "Yes" button completed the survey. A total of 512 students took part in the survey, and 451 completely filled out the questionnaire.

Among the 451 respondents, 59.64% were boys and 40.36% were girls. 29.49% were high school students, 42.79% were middle school students, and 27.71% were primary school students.

3.2 Measures

A 5-point Likert scale (5 = "Strongly agree"; 1 = "Strongly disagree") was employed to measure all the items of the questionnaire.

3.3 Cyberbullying Victimization

The cyber victimization scale by Brighi et al. (2012) was used to measure CB victimization. It is a 22-item scale that includes items regarding spreading of rumors; social exclusion; manipulation of pictures; embarrassing videos and pictures; displays and theft of private information; using participant's identity without consent; identity theft; threats; insulting comments made to others concerning the participant; and direct insults made to the respondent. In the present study, Cronbach's α for the CB victimization scale was 0.91. Confirmatory factor analysis (CFA) revealed significant factor loadings ($p < 0.001$).

3.4 Coping Strategies (CS)

CS was measured using the scale by Min et al. (2000), which is a 12-item scale covering three CS (AV; AC; SS). The sample items for each included: (i) AV: *"When I feel stress I think about other things that are not associated with the situation or I focus on other things"*; (ii) AC: *"I take concrete steps to improve the situation or resolve the issue"*; (iii) SS: *"I seek assistance or suggestions from others to diminish LN"*. Cronbach's alpha for the CS scale was 0.813 in the present study. CFA revealed significant factor loadings ($p < 0.001$).

3.5 Emotional Intelligence (EI)

A 16-item Wong & Law EI Scale (Wong & Law, 2002) was employed to measure EI. Four items were included for each sub-scale: use of emotion; regulation of emotion; others' emotion appraisals; and self-emotion appraisals. In our sample, Cronbach's α for the EI scale was 0.90, thus exhibiting acceptable reliability. CFA revealed that these items displayed significant factor loadings for all four sub-scales ($p < 0.001$).

3.6 Loneliness (LN)

LN was measured using the Gierveld LN Scale (Gierveld & Tilburg, 2006; Leung et al., 2008). It is a 6-item scale covering social LN (3 items) and emotional LN (3 items). Cronbach's α for the LN scale was 0.89 in the present study. CFA revealed significant factor loadings for both sub-scales ($p < 0.001$).

4. DATA ANALYSIS

PLS-SEM and Smart PLS 3.0 were used for analyzing the data. First of all, the PLS model was specified with four constructs. Then, the measurement model was evaluated. Subsequently, the reliability of the measures was validated. The postulated hypotheses were examined. Additionally, the mediating impact of CS and EI between CB victimization and LN was also assessed.

It was ensured that common method bias is not a threat in the present research by computing the variance inflation factors ($1.2 \leq VIF \leq 3.0$) and it was found to be below the threshold value of 3.3 suggested by Kock (2015).

4.1 Reliability and Construct Validity

Tables 1 and 2 report various statistics related to the evaluation of the reliability and the construct validity. Regarding the reliability, Cronbach's α values ($0.813 \leq \alpha \leq 0.911$), and the composite reliability ($0.813 \leq CR \leq 0.916$) specify the internal consistency of all measures of the research.

Concerning the discriminant validity, all the square roots of AVE ($0.858 \leq AVE \leq 0.891$) are higher than the corresponding correlation coefficient ($-0.553 \leq r \leq 0.556$) (Fornell & Larcker, 1981); and all the heterotrait-monotrait ratio ($0.259 \leq HTMT \leq 0.556$) of correlations are smaller than the threshold value of 0.85 (Henseler et al., 2015); thus confirming the discriminant validity of the measures as shown in Table 2. Overall, all the measures have displayed satisfactory validity and reliability.

Table 1. Reliability and convergent validity

Constructs	Cronbach's α	Composite Reliability	Average Variance Extracted
CBV	0.911	0.916	0.793
CS	0.813	0.813	0.736
EI	0.902	0.915	0.782
LN	0.896	0.902	0.767

CBV: Cyberbullying Victimization, CS: Coping Strategies, EI: Emotional Intelligence; LN: Loneliness

Table 2. Correlations and discriminant validity of measures

	CBV	CS	EI	LN
CBV	0.891			
CS	−0.319	0.858		
EI	−0.241	0.259	0.884	
LN	0.556	−0.353	−0.214	0.876

CV: Cyberbullying Victimization, CS: Coping Strategies, EI: Emotional Intelligence; LN: Loneliness

(Notes: Square-root of AVE is shown in bold in diagonals, the heterotrait-monotrait ratio of correlations in upper triangular, and the correlation coefficients in lower triangular)

4.2 Structural Model

Before the hypotheses testing, the prerequisites of PLS-SEM were confirmed. The adequacy of the model fit was checked using NFI ($=0.898$), and SRMR ($=0.029$); thus indicating that the model fitted the data well (Henseler et al., 2014; Hu & Bentler, 1999). Next, the R^2 value was assessed for predictive power and the Q^2 (Stone-Geisser's) value was evaluated for the predictive relevance through the cross-validated redundancy method. Concerning the predictive power of each antecedent, CB explains 25% and 32% of the total variance in CS and EI correspondingly. Additionally, the antecedents of LN account for 55% of the total variances in LN. Regarding the predictive relevance, each Q-squared value ($CS=0.19$; $EI=0.15$; $LN=0.39$) surpasses the threshold value of "0," thus implying that each antecedent has sufficient predictive relevance for the outcome in the model (Henseler et al., 2009).

4.3 Path Coefficients and Significances

Figure 2 in graphical form depicts the values of the individual parameters between the variables. PLS-SEM results point out that the impact of CB victimization is positive ($\beta=0.519$) and significant ($t=6.391$) on CS and positive ($\beta=0.441$) and significant ($t=6.025$) on EI.

The findings reveal that the positive impact of CB victimization on LN ($\beta=0.201$; $t=2.781$) is significant. Finally, the results also verify that the negative impact of both CS ($\beta=-0.519$; $t=10.954$) and EI ($\beta=-0.453$; $t=9.402$) is significant on LN.

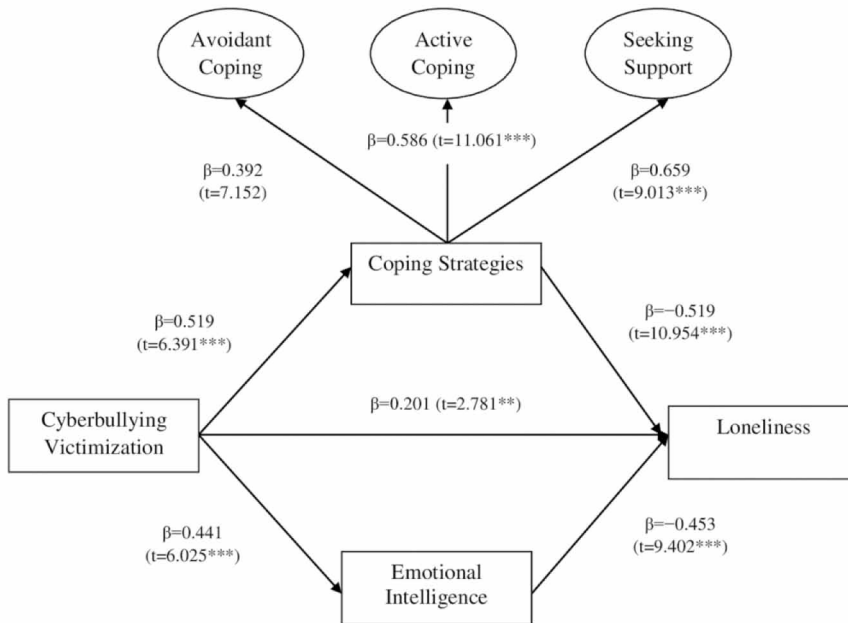
Concerning the CS in the relationship between CB victimization and LN, two types (active coping, and seeking support) are significant whereas the third type (avoidant coping) is non-significant.

4.4 Mediation Analysis

To test the hypothesis, the bootstrapping technique of PLS-SEM was used. Particularly, the effects of CB victimization on LN have mediation effects by CS and EI.

The total indirect effect of CB victimization on LN (effect size= 0.197 ; $t=4.062$) is significant, of which the single mediation effect by CS (effect size= 0.013 ; $t=2.541$) and EI

Figure 2. Path coefficients and significances



* $p<0.05$. ** $p<0.01$. *** $p<0.001$

(effect size=0.096; $t=3.625$) are further significant (see Table 3). Hence, these findings support hypotheses H1, H2, and H3.

5. RESULTS, DISCUSSION, AND THEORETICAL CONTRIBUTIONS

The main contribution of the current research is to inspect not only the mediating role of the CS between CB victimization and LN but also examine EI as a coping strategy to deal with CB.

The current research investigated the associations between CB victimization and LN feelings using a sample of Indian adolescents. Research findings imply that Indian adolescents are victims of CB, further specifying that CB is a worldwide issue. This finding is consistent with a study conducted on a sample of Indian adolescents by Wright et al. (2015). Additionally, such results expand the earlier studies on cultural values to the cyber context, disclosing identical relationships (Huang et al., 2013; Menzer & Torney-Purta, 2012; Nesdale & Naito, 2005).

This study investigated the associations between CB victimization and LN feelings among Indian adolescents. Results from the study suggest that adolescents in India are involved in cyber

Table 3. Mediation effects

Mediated Paths	Effects	t-Statistics
Cyberbullying Victimization → Loneliness	0.197	4.062***
Cyberbullying Victimization → Coping Strategies→ Loneliness	0.013	2.541**
Cyberbullying Victimization → Emotional Intelligence→ Loneliness	0.096	3.625**

* $p<0.05$. ** $p<0.01$. *** $p<0.001$

aggression, further indicating that these behaviors are a global concern. Such results are supported by the literature, indicating that the role of CS and EI is important in a variety of countries, including those that endorse individualistic and collectivistic cultural values. In addition, these findings also accentuate the role of CS and EI in the relationship of CB victimization with LN feelings.

The findings reveal that CB victimization occurrence has increased recently. Around 12% of the participants expressed that they were cyberbullied. These occurrence rates are superior to prior studies of CB victimization, e.g., 7.49% in a study by Zhang et al. (2020), 6.3% in a study by Zhu et al. (2019), and 5.51% in a study by Chen et al., (2018).

CB victimization may escalate LN among adolescents and children and other psychological well-being concerns and even suicide (Goosby et al., 2013; Loades et al., 2020; Okruszek et al., 2020). In contrast, merely one research from Spain concerning cyber victimization revealed positive linkages between CB victimization, poor school adjustment, and LN (Cañas et al., 2020).

Our findings revealed that CB victims displayed a higher level of LN feelings. Generally, social support is the extensively acknowledged antecedent of LN (de Jong Gierveld, 1998). The victimization experience in childhood may result in LN during childhood (Matthews et al., 2020). Several particular groups, for example, the adolescents, the old, females, residents in the urban area, and low income are at increased risk of LN (Beutel et al., 2017; Bu et al., 2020). Few latest research works have revealed the association between CB victimization experience and LN among adolescents (Cole et al., 2021).

The role of the three CS and EI between CB victimization and LN was also scrutinized. Han et al. (2021) claimed that coping, a critical concept in CB studies, can act as a link between CB and LN. Acting in response to the research call, these results provide proof of the mediation impact of CS in the associations between CB victimization and LN. Particularly, the current research highlighted the mediating impact of EI on LN. This result indicates that EI acts as an antecedent of LN and it can assist in comprehending the role of EI as a medium between CB victimization and LN.

The study provides empirical evidence for a theoretical framework linking victimization, EI, and psychological well-being related to CB. This implies that single-handedly as well as in amalgamation with others, EI can be specifically pertinent in alleviating psychological well-being concerns among cyber victims.

Further, investigating the three CS to decrease the negative impact of CB on LN, this research established that 2 coping styles (seeking support and active coping) are noteworthy alleviators, whereas avoidance coping is not significant in the study. Students reported LN in the analysis presented in the current research; however social support coping strategy and EI were significant.

The most effective strategy was the seeking support strategy ($\beta=0.659$), followed by the active coping strategy ($\beta=0.586$). The victims perceived the avoidant coping strategy ($\beta=0.392$) strategy the least effective. The finding that social support from friends, teachers, and parents played a major role in alleviating the negative effects of CB is consistent with the latest survey carried out by Chai et al. (2019). Sparse research works have discovered these alleviating factors for the unwanted association between CB and LN.

Our findings revealed that CB is also associated with the coping strategy. Prior studies have indicated that emotional CS is correlated with a lower degree of mental health problems. Exploring the coping styles to lessen the unfavorable effect of CB on LN, the current study found CS is a significant alleviator. Furthermore, we found that EI played a more significant role in reducing the impact of CB and the feeling of LN, as a recent review indicated (Chai et al., 2019).

Overall, the current research makes contributions to the literature concerning CB and LN by examining adolescent CS and EI. The main theoretical contribution of the current research to the adolescent literature is evident as it is one of the few studies examining the mediating impact of CS and EI to alleviate the negative effects of CB, which may facilitate the comprehension of managing LN and gathers the focus of researchers to further explore the problem of CB.

6. CONTRIBUTIONS

This study makes contributions to research and practice. Research on CB has gained momentum in the literature, and we have witnessed more CB research published recently [e.g., Camacho et al. (2018); Chan et al. (2019); Lowry et al. (2016); Lowry et al. (2017)].

The current study not only helps researchers understand the current state of research on CB, an emerging research stream on the deviant use of information technology that bears significant societal and organizational implications, but also responds to the call for more studies on the negative effects of CB.

Using a rigorous approach to review and analyze published studies of CB, we identified the theoretical foundations, methods, contexts, and samples in the current research. We proposed an integrative framework encapsulating the linkages between CB and LN and depicting the role of CS and EI in this association.

Based on the literature review findings and the integrative framework, we identify promising future research avenues for researchers from other disciplines. Insights derived from the proposed research questions should help develop CB research programs. By revealing what we already know and what we do not yet know about CB, our work is expected to enrich the scientific understanding of CB from technological and multidisciplinary perspectives.

This study suggests that researchers could contribute to the literature by incorporating a socio-technical perspective into their investigations of this technology-mediated phenomenon. Lastly, this study sheds light on the identification, intervention, and prevention of CB. Specifically, it informs practitioners of the personal and behavioral variables related to CB. It provides insights for educators, governments, and social networking site developers seeking to formulate proactive measures that prevent CB.

The present research is the first of its kind to study the relationship between CB victimization and LN among children and adolescents. In addition, no study could be found in our knowledge exploring the mediation impact of CS and EI between CB and LN.

Overall, the current research makes contributions to the literature concerning CB and LN by examining adolescent CS and EI. The main theoretical contribution of the current research to the adolescent literature is evident as it is one of the few studies examining the mediating impact of CS and EI to alleviate the negative effects of CB, which may facilitate the comprehension of managing LN and gathers the focus of researchers to further explore the problem of CB.

The current study provides evidence of CB victimization from India where culture endorses both collectivistic and individualistic values. Thus the social-ecological perspective provides a useful understanding of how various contexts influence CB.

7. LIMITATIONS AND FUTURE STUDIES

The first limitation is that this study being cross-sectional research may not create causal relationships. Thus longitudinal studies are suggested in the future. Secondly, the data was gathered from only one country i.e., India. Hence, the generalization of the findings is limited. For example, adolescents in Indian culture and adolescents in other cultures can have diverse CB and LN experiences (Chen et al., 2014). Thirdly, the study focused only on the victims of CB and ignored the perpetrators of CB. Taking into account the growing incorporation of CB both in physical space as well as cyberspace and in our everyday lives, additional research works concerning aggression in CB are suggested for the researchers. The inclusion of other variables like personality in the research model may provide additional insights into the prevalence and response of CB.

8. CONCLUSION

The study investigated the linkages among CB victimization, LN, coping strategies, and EI in a sample of Indian adolescents. An empirically supported theoretical framework integrating victimization,

EI, and psychological well-being associated with CB is provided in the present study. The findings revealed that the CB victimization was related to a higher degree of LN. In fact, using technology tools like computers and mobile phones can create a lonely environment that might encourage aggressive behavior, including CB.

The current research proposed a conceptual model highlighting the effects of CB victimization on LN among children and adolescents. In addition, we explored the mediation impact of CS and EI between CB and LN. This study assessed the potential role of CS and EI in effectively dealing with LN. This study determined the best ways of managing LN due to CB victimization.

The role of the three CSs (seeking support, active coping, and avoidant coping) between CB victimization and LN was also scrutinized. It was found that seeking support and active coping strategies ease the loneliness resulting from CB victimization, while avoidant coping strategy is found to be non-significant. In other words, adolescents had more implied support and active coping strategies to handle the stressful situation that occurred from CB as compared to avoidant coping strategy. Several preceding research works have ignored the role of EI, which might provide additional insights into CB victimization. Furthermore, CS and EI may alleviate the negative effects of CB on LN.

The current study demonstrated that improving EI could be a method to lessen the detrimental effects of CB victimization. The current study highlights EI as a prospective intervention target, even though the findings demand replication and more extensive investigation. The results complement the past research on the value of EI in preventing loneliness in teenagers who have experienced CB. Additionally, the combination of CS and EI was more effective than individual factors in handling the consequences caused by CB.

ETHICAL DECLARATION

This study has been given the required ethical approval from the Jaypee University of Engineering & Technology, Guna, Madhya Pradesh, India pertaining to the use of data collection through primary survey methodology and maintaining the confidentiality of the data received from the respondents. The authors have taken consent from the human respondents (9-15 years old) and no experiments have been conducted on human respondents. No animal experiments are involved in the study.

CONFLICT OF INTEREST

The authors of this publication declare there are no competing interests.

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REFERENCES

- Ansary, N. S. (2020). Cyberbullying: Concepts, theories, and correlates informing evidence-based best practices for prevention. *Aggression and Violent Behavior, 50*, 101343. doi:10.1016/j.avb.2019.101343
- Babvey, P., Capela, F., Cappa, C., Lipizzi, C., Petrowski, N., & Ramirez-Marquez, J. (2020). Using social media data for assessing children's exposure to violence during the COVID-19 pandemic. *Child Abuse & Neglect, 116*, 104747. doi: . chiabu.2020.10474710.1016/j
- Beran, T., & Li, Q. (2007). The relationship between cyberbullying and school bullying. *The Journal of Student Wellbeing, 1*(2), 16–33. doi:10.21913/JSW.v1i2.172
- Beutel, M. E., Klein, E. M., Brähler, E., Reiner, I., Jünger, C., Michal, M., Wiltink, J., Wild, P. S., Münzel, T., Lackner, K. J., & Tibubos, A. N. (2017). Loneliness in the general population: Prevalence, determinants and relations to mental health. *BMC Psychiatry, 17*(1), 97. doi:10.1186/s12888-017-1262-x PMID:28320380
- Brighi, A., Guarini, A., Melotti, G., Galli, S., & Genta, M. L. (2012). Predictors of victimization across direct bullying, indirect bullying and cyberbullying. *Emotional & Behavioural Difficulties, 17*(3–4), 375–388. doi:10.1080/13632752.2012.704684
- Bu, F., Steptoe, A., & Fancourt, D. (2020). Who is lonely in lockdown? Cross-cohort analyses of predictors of loneliness before and during the COVID-19 pandemic. *Public Health, 186*, 31–34. doi:10.1016/j.puhe.2020.06.036 PMID:32768621
- Cacioppo, J. T., & Cacioppo, S. (2018). The growing problem of loneliness. *Lancet, 391*(10119), 426. doi:10.1016/S0140-6736(18)30142-9 PMID:29407030
- Camacho, S., Hassanein, K., & Head, M. (2018). Cyberbullying impacts on victims' satisfaction with information and communication technologies: The role of perceived cyberbullying severity. *Information & Management, 55*(4), 494–507. doi:10.1016/j.im.2017.11.004
- Cañas, E., Estévez, E., León-Moreno, C., & Musitu, G. (2020). Loneliness, family communication, and school adjustment in a sample of cybervictimized adolescents. *International Journal of Environmental Research and Public Health, 17*(1), 335. doi:10.3390/ijerph17010335 PMID:31947793
- Cauberghe, V., Van Wesenbeeck, I., De Jans, S., Hudders, L., & Ponnet, K. (2020). How adolescents use social media to cope with feelings of loneliness and anxiety during COVID-19 lockdown. *Cyberpsychology, Behavior, and Social Networking, 24*(4), 250–257. doi:10.1089/cyber.2020.0478 PMID:33185488
- Chai, X., Du, H., Li, X., Su, S., & Lin, D. (2019). What really matters for loneliness among left-behind children in rural China: A meta-analytic review. *Frontiers in Psychology, 10*, 774. doi:10.3389/fpsyg.2019.00774 PMID:31057450
- Chan, T. K., Cheung, C. M., & Lee, Z. W. (2021). Cyberbullying on social networking sites: A literature review and future research directions. *Information & Management, 58*(2), 103411. doi:10.1016/j.im.2020.103411
- Chan, T. K. H., Cheung, C. M. K., & Wong, R. Y. M. (2019). Cyberbullying on social networking sites: The crime opportunity and affordance perspectives. *Journal of Management Information Systems, 36*(2), 574–609. doi:10.1080/07421222.2019.1599500
- Chen, Q., Lo, C. K. M., Zhu, Y., Cheung, A., Chan, K. L., & Ip, P. (2018). Family poly-victimization and cyberbullying among adolescents in a Chinese school sample. *Child Abuse & Neglect, 77*, 180–187. doi:10.1016/j.chiabu.2018.01.015 PMID:29407606
- Chen, X., Wang, L., Li, D., & Liu, J. (2014). Loneliness in Chinese children across contexts. *Developmental Psychology, 50*(10), 2324–2333. doi:10.1037/a0037689 PMID:25181650
- Cole, A., Bond, C., Qualter, P., & Maes, M. (2021). A systematic review of the development and psychometric properties of loneliness measures for children and adolescents. *International Journal of Environmental Research and Public Health, 18*(6), 3285. doi:10.3390/ijerph18063285 PMID:33810076
- Cook, S. (2022). *Cyberbullying Statistics and Facts for 2022*. Comparitech. Retrieved 21 May 2022, from <https://www.comparitech.com/internet-providers/cyberbullying-statistics/>

- de Jong Gierveld, J. (1998). A review of loneliness: Concept and definitions, determinants and consequences. *Reviews in Clinical Gerontology*, 8(1), 73–80. doi:10.1017/S0959259898008090
- de Rijk, A. E., Le Blanc, P. M., Schaufeli, W. B., & de Jonge, J. (1998). Active coping and need for control as moderators of the job demand-control model: Effects on burnout. *Journal of Occupational Health Psychology*, 71, 1–18.
- Diden, D., Scholte, R. H., Korzilius, H., Moor, J. M. H., Vermeulen, A., & O'Reilly, M. (2009). Cyberbullying among students with intellectual and developmental disability in special education settings. *Developmental Neurorehabilitation*, 12(3), 146–151. doi:10.1080/17518420902971356 PMID:19466622
- Dong, H., Yang, F., Lu, X., & Hao, W. (2020). Internet addiction and related psychological factors among children and adolescents in China during the Coronavirus disease 2019 (COVID-19) epidemic. *Frontiers in Psychology*, 11, 00751. doi:10.3389/fpsy.2020.00751 PMID:32982806
- Eatough, E. M., & Chang, C.-H. (2018). Effective coping with supervisor conflict depends on control: Implications for work strains. *Journal of Occupational Health Psychology*, 23(4), 537–552. doi:10.1037/ocp0000109 PMID:29323503
- Estévez, E., Cañas, E., Estévez, J. F., & Povedano, A. (2020). Continuity and overlap of roles in victims and aggressors of bullying and Cyberbullying in adolescence: A systematic review. *International Journal of Environmental Research and Public Health*, 17(20), 7452. doi:10.3390/ijerph17207452 PMID:33066202
- Fore, H. H. (2020). Violence against children in the time of COVID-19: What we have learned, what remains unknown and the opportunities that lie ahead. *Child Abuse & Neglect*, 116, 104776. doi:10.1016/j.chiabu.2020.104776 PMID:33388153
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *JMR, Journal of Marketing Research*, 18(1), 39–50. doi:10.1177/002224378101800104
- Fothergill, A., Edwards, D., & Burnard, P. (2004). Stress, burnout, coping and stress management in psychiatrists: Findings from a systematic review. *The International Journal of Social Psychiatry*, 50(1), 54–65. doi:10.1177/0020764004040953 PMID:15143847
- Gaur, A. (2021). *Cyber bullying and anti – bullying laws in India. a-and-s-jurisprudentia*. Retrieved 21 May 2022, from <https://www.a-and-s-jurisprudentia.com/post/cyber-bullying-and-anti-bullying-laws-in-india>
- Gierveld, J. D. J., & Tilburg, T. V. (2006). A 6-item scale for overall, emotional, and social loneliness: Confirmatory tests on survey data. *Research on Aging*, 28(5), 582–598. doi:10.1177/0164027506289723
- Goosby, B. J., Bellatorre, A., Walsemann, K. M., & Cheadle, J. E. (2013). Adolescent loneliness and health in early adulthood. *Sociological Inquiry*, 83(4), 505–536. doi:10.1111/soin.12018 PMID:24187387
- Grandey, A. A., & Gabriel, A. S. (2015). Emotional labor at a crossroads: Where do we go from Here? *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 323–349. doi:10.1146/annurev-orgpsych-032414-111400
- Guy, M. E., & Lee, H. J. (2015). How emotional intelligence mediates emotional labor in public service jobs. *Review of Public Personnel Administration*, 35(3), 261–277. doi:10.1177/0734371X13514095
- Han, Z., Wang, Z., & Li, Y. (2021). Cyberbullying Involvement, Resilient Coping, and Loneliness of Adolescents During Covid-19 in Rural China. *Frontiers in Psychology*, 12, 664612. doi:10.3389/fpsyg.2021.664612 PMID:34220638
- Henseler, J., Dijkstra, T. K., Sarstedt, M., Ringle, C. M., Diamantopoulos, A., Straub, D. W., Ketchen, D. J. Jr, Hair, J. F., Hult, G. T. M., & Calantone, R. J. (2014). Common beliefs and reality about PLS: Comments on rönkkö and evermann (2013). *Organizational Research Methods*, 17(2), 182–209. doi:10.1177/1094428114526928
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. *Advances in International Marketing*, 20, 277–319. Advance online publication. doi:10.1108/S1474-7979(2009)0000020014
- Heu, L. C., van Zomeren, M., & Hansen, N. (2019). Lonely alone or lonely together? A cultural-psychological examination of individualism-collectivism and loneliness in five European countries. *Personality and Social Psychology Bulletin*, 45(5), 780–793. doi:10.1177/0146167218796793 PMID:30264659

- Hobfoll, S. E. (1989). Conservation of resources American psychologist. *The American Psychologist*, 44, 513–524. doi:10.1037/0003-066X.44.3.513 PMID:2648906
- Hu, H.-H. (2010). Job stress, coping strategies, and burnout among hotel industry supervisors in Taiwan. *International Journal of Human Resource Management*, 21(8), 1337–1350. doi:10.1080/09585192.2010.483867
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. doi:10.1080/10705519909540118
- Huang, H., Hong, J. S., & Espelage, D. L. (2013). Understanding factors associated with bullying and peer victimization in Chinese schools within ecological contexts. *Journal of Child and Family Studies*, 22(7), 881–892. doi:10.1007/s10826-012-9647-4
- Internet Live Stats. (2015). *Internet live stats*. Retrieved from: <https://www.internetlivestats.com/>
- Ito, J. K., & Brotheridge, C. M. (2003). Resources, coping strategies, and emotional exhaustion: A conservation of resources perspective. *Journal of Vocational Behavior*, 63(3), 490–509. doi:10.1016/S0001-8791(02)00033-7
- Izgar, H. (2009). An Investigation of Depression and Loneliness among School Principals. *Educational Sciences: Theory & Practice*, 9(1), 247–258.
- Jiang, Q., Zhao, F., Xie, X., Wang, X., Nie, J., & Lei, L. (2020). Difficulties in emotion regulation and cyberbullying among Chinese adolescents: A mediation model of loneliness and depression. *Journal of Interpersonal Violence*. Advance online publication. doi:10.1177/0886260520917517 PMID:32418471
- Jung, H. S., & Yoon, H. H. (2014). Antecedents and consequences of employees' job stress in a foodservice industry: Focused on emotional labor and turnover intent. *International Journal of Hospitality Management*, 38, 84–88. doi:10.1016/j.ijhm.2014.01.007
- Juvonen, J., & Gross, E. F. (2008). Extending the school grounds? Bullying experiences in cyberspace. *The Journal of School Health*, 78(9), 496–505. doi:10.1111/j.1746-1561.2008.00335.x PMID:18786042
- Kim, H. J., & Agrusa, J. (2011). Hospitality service employees' coping styles: The role of emotional intelligence, two basic personality traits, and socio-demographic factors. *International Journal of Hospitality Management*, 30(3), 588–598. doi:10.1016/j.ijhm.2010.11.003
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, 11(4), 1–10. doi:10.4018/ijec.2015100101
- Kowalski, R. M., & Limber, S. P. (2007). Electronic bullying among middle school students. *Journal of Adolescent Health*, 46, S22–S30. <http://dx.doi.org/2007.08.01710.1016/j.jadohealth>
- Kowalski, R. M., & Limber, S. P. (2013). Psychological, physical, and academic correlates of cyberbullying and traditional bullying. *The Journal of Adolescent Health*, 53(1), S13–S20. doi:10.1016/j.jadohealth.2012.09.018 PMID:23790195
- Kwan, G. C. E., & Skoric, M. M. (2013). Facebook bullying. *Computers in Human Behavior*, 29(1), 16–25. doi:10.1016/j.chb.2012.07.014
- Kwan, I., Dickson, K., Richardson, M., MacDowall, W., Burchett, H., Stansfield, C., Brunton, G., Sutcliffe, K., & Thomas, J. (2020). Cyberbullying and children and young people's mental health: A systematic map of systematic reviews. *Cyberpsychology, Behavior, and Social Networking*, 23(2), 72–82. doi:10.1089/cyber.2019.0370 PMID:31977251
- Langos, C. (2012). Cyberbullying: The challenge to define. *Cyberpsychology, Behavior, and Social Networking*, 15(6), 285–289. doi:10.1089/cyber.2011.0588 PMID:22703033
- Lazarus, R. S., & Folkmann, S. (1984). *Stress, appraisal and coping*. Springer.
- Lee, J., & Ok, C. M. (2014). Understanding hotel employees' service sabotage: Emotional labor perspective based on conservation of resources theory. *International Journal of Hospitality Management*, 36, 176–187. doi:10.1016/j.ijhm.2013.08.014
- Lee, J. J., & Ok, C. (2012). Reducing burnout and enhancing job satisfaction: Critical role of hotel employees' emotional intelligence and emotional labor. *International Journal of Hospitality Management*, 31(4), 1101–1112. doi:10.1016/j.ijhm.2012.01.007

- Leung, G. T. Y., Gierveld, J. D. J., & Lam, L. C. W. (2008). Validation of the Chinese translation of the 6-item De Jong Gierveld loneliness scale in elderly Chinese. *International Psychogeriatrics*, 20(6), 1262–1272. doi:10.1017/S1041610208007552 PMID:18590603
- Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011). Risks and safety on the Internet: The perspective of European children. EU Kids Online.
- Loades, M. E., Chatburn, E., Higson-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., Linney, C., McManus, M. N., Borwick, C., & Crawley, E. (2020). Rapid systematic review: The impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19. *Journal of the American Academy of Child and Adolescent Psychiatry*, 59(11), 1218.e3–1239.e3. doi:10.1016/j.jaac.2020.05.009 PMID:32504808
- Lomas, J., Stough, C., Hansen, K., & Downey, L. A. (2012). Brief report: Emotional intelligence, victimization and bullying in adolescents. *Journal of Adolescence*, 35(1), 207–211. doi:10.1016/j.adolescence.2011.03.002 PMID:21470670
- Lowry, P. B., Moody, G. D., & Chatterjee, S. (2017). Using it design to prevent cyberbullying. *Journal of Management Information Systems*, 34(3), 863–901. doi:10.1080/07421222.2017.1373012
- Lowry, P. B., Zhang, J., Wang, C., & Siponen, M. (2016). Why do adults engage in cyberbullying on social media? An integration of online disinhibition and deindividuation effects with the social structure and social learning model. *Information Systems Research*, 27(4), 962–986. doi:10.1287/isre.2016.0671
- Machmutow, K., Perren, S., Sticca, F., & Alsaker, F. D. (2012). Peer victimization and depressive symptoms: Can specific coping strategies buffer the negative impact of cybervictimization? *Emotional & Behavioural Difficulties*, 17(3-4), 403–420. doi:10.1080/13632752.2012.704310
- Mariani, R., Renzi, A., Di Trani, M., Trabucchi, G., Danskin, K., & Tambelli, R. (2020). The impact of coping strategies and perceived family support on depressive and anxious symptomatology during the Coronavirus pandemic (COVID-19) lockdown. *Frontiers in Psychiatry*, 11, 587724. doi:10.3389/fpsyt.2020.587724 PMID:33281647
- Matthews, T., Caspi, A., Danese, A., Fisher, H. L., Moffitt, T. E., & Arseneault, L. (2020). A longitudinal twin study of victimization and loneliness from childhood to young adulthood. *Development and Psychopathology*, ●●●, 1–11. doi:10.1017/S0954579420001005 PMID:33046153
- Menzer, M. M., & Torney-Purta, J. (2012). Individualism and socioeconomic diversity at school as related to perceptions of the frequency of peer aggression in fifteen countries. *Journal of Adolescence*, 35(5), 1285–1294. doi:10.1016/j.adolescence.2012.04.013 PMID:22633914
- Min, K.-H., Kim, J.-H., Yoon, S.-B., & Jahng, S.-M. (2000). A Study on the negative emotion regulation strategies: Variations in regulation styles related to the kind of emotions and the personal characteristics. *Korean Journal of Social and Personality Psychology*, 14, 1–16.
- Nesdale, D., & Naito, M. (2005). Individualism-collectivism and the attitudes to school bullying of Japanese and Australian Students. *Journal of Cross-Cultural Psychology*, 36(5), 537–556. doi:10.1177/0022022105278541
- Nocentini, A., Calmaestra, J., Schultze-Krumbholz, A., Scheithauer, H., Ortega, R., & Menesini, E. (2010). Cyber-bullying. *Australian Journal of Guidance & Counselling*, 20, 129–142. doi:10.1375/ajgc.20.2.129
- Okruszek, Ł., Aniszewska-Stańczuk, A., Piejka, A., Wiśniewska, M., & Żurek, K. (2020). Safe but lonely? Loneliness, anxiety, and depression symptoms and COVID-19. *Frontiers in Psychology*, 11, 579181. doi:10.3389/fpsyg.2020.579181 PMID:33343454
- Park, S., Na, E., & Kim, E. (2014). The relationship between online activities, netiquette and cyberbullying. *Children and Youth Services Review*, 42, 74–81. doi:10.1016/j.childyouth.2014.04.002
- Patchin, J. W. (2016). *Cyberbullying Data*. <https://cyberbullying.org/2016-cyberbullying-data>
- Patchin, J. W., & Hinduja, S. (2006). Bullies move beyond the schoolyard: A preliminary look at Cyberbullying. *Youth Violence and Juvenile Justice*, 4(2), 148–169. doi:10.1177/1541204006286288
- Patchin, J. W., & Hinduja, S. (2008). Bullies move beyond the schoolyard: A preliminary look at cyberbullying. *Youth Violence and Juvenile Justice*, 4(2), 148–169. doi:10.1177/1541204006286288

- Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19(1), 2–21. doi:10.2307/2136319 PMID:649936
- Perren, S., Corcoran, L., Cowie, H., Dehue, F., Garcia, D. J., Mc Guckin, C., & Völlink, T. (2012). Tackling cyberbullying: Review of empirical evidence regarding successful responses by students, parents, and schools. *International Journal of Conflict and Violence*, 6, 283–292.
- Petrides, K. V., Frederickson, N., & Furnham, A. (2004). The role of trait emotional intelligence in academic performance and deviant behaviour at school. *Personality and Individual Differences*, 36(2), 277–293. doi:10.1016/S0191-8869(03)00084-9
- Renati, R., Berrone, C., & Zanetti, M. A. (2012). Morally disengaged and unempathic. *Cyberpsychology, Behavior, and Social Networking*, 15(8), 391–398. doi:10.1089/cyber.2012.0046 PMID:22823490
- Reportal, D. (2022). *India Social Media Statistics 2022 | Mobile & Internet Statistics*. The Global Statistics. Retrieved 21 May 2022, from <https://www.theglobalstatistics.com/india-social-media-statistics/>
- Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *The American Psychologist*, 41(7), 813–819. doi:10.1037/0003-066X.41.7.813 PMID:3740641
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25(2), 167–177. doi:10.1016/S0191-8869(98)00001-4
- Segrin, C., McNelis, M., & Pavlich, C. A. (2018). Indirect effects of loneliness on substance use through stress. *Health Communication*, 33(5), 513–518. doi:10.1080/10410236.2016.1278507 PMID:28157378
- Segrin, C., Nevarez, N., Arroyo, A., & Harwood, J. (2012). Family of origin environment and adolescent bullying predict young adult loneliness. *The Journal of Psychology*, 146(1-2), 119–134. doi:10.1080/00223980.2011.555791 PMID:22303616
- Shukla, A., & Bhasin, K. (2022). Social media usage in higher education: Role in marketing and communication during COVID-19. *Transnational Marketing Journal*, 10(1), 87–101. doi:10.33182/tmj.v10i1.1807
- Slonje, R., Smith, P. K., & Frisé, A. (2013). The nature of cyberbullying, and strategies for prevention. *Computers in Human Behavior*, 29(1), 26–32. doi:10.1016/j.chb.2012.05.024
- Smith, B. J., & Lim, M. H. (2020). How the COVID-19 pandemic is focusing attention on loneliness and social isolation. *Public Health Research & Practice*, 30(2), 3022008. doi:10.17061/phrp3022008 PMID:32601651
- Smith, M. M., Saklofske, D. H., Keefer, K. V., & Tremblay, P. F. (2016). Coping strategies and psychological outcomes: The moderating effects of personal resiliency. *The Journal of Psychology*, 150(3), 318–332. doi:10.1080/00223980.2015.1036828 PMID:25951375
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyber-bullying. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 49, 376–385. doi:10.1111/j.1469-7610.2007.01846.x PMID:18363945
- Srabstein, J., & Piazza, T. (2008). Public health, safety and educational risks associated with bullying behaviors in American adolescents. *Journal of Adolescent Medicine and Health*, 20(2), 223–233. doi:10.1515/IJAMH.2008.20.2.223 PMID:18714558
- Stacey, E. (2009). Research into cyberbullying: Student perspectives on cybersafe learning environments. *Informatics in Education-An International Journal*, 8(1), 115–130. doi:10.15388/infedu.2009.08
- Straus, L. B. (2016). *Cyberbullying: Which 3 Social Networks Are the Worst?* <https://www.momsteam.com/health-safety/cyberbullying-which-3-social-networks-are-the-worst>
- Sutton, J., Smith, P. K., & Swettenham, J. (2001). ‘It’s easy, it works, and it makes me feel good’ – a response to Arsenio and Lemerise. *Social Development*, 10(1), 74–78. doi:10.1111/1467-9507.00149
- Teoh, M. W., Wang, Y., & Kwek, A. (2019). Coping with emotional labor in high stress hospitality work environments. *Journal of Hospitality Marketing & Management*, 0(8), 1–22. doi:10.1080/19368623.2019.1571979
- Topçu, Ç. (2008). *The Relationship of Cyberbullying to Empathy, Gender, Traditional Bullying Internet Use and Adult Monitoring* [Unpublished Master’s Thesis]. School of Social Sciences of Middle East Technical University, Ankara.

- Tsaur, S.-H., & Tang, Y.-Y. (2012). Job stress and well-being of female employees in hospitality: The role of regulatory leisure coping styles. *International Journal of Hospitality Management*, 31(4), 1038–1044. doi:10.1016/j.ijhm.2011.12.009
- Tynes, B., & Giang, M. (2009). Online victimization, depression and anxiety among adolescents in the US. *European Psychiatry*, 24(1), 671–686. doi:10.1016/S0924-9338(09)70919-8
- Willard, N. E. (2007). *Cyberbullying and cyberthreats: Responding to the challenge of online social aggression, threats, and distress*. Research Press.
- Wong, C.-S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly*, 13(3), 243–274. doi:10.1016/S1048-9843(02)00099-1
- Wright, M., Kamble, S. V., & Soudi, S. P. (2015). Indian adolescents' cyber aggression involvement and cultural values: The moderation of peer attachment. *School Psychology International*, 36(4), 1–18. doi:10.1177/0143034315584696
- Wright, M. F., & Li, Y. (2013). The association between cyber victimization and subsequent cyber aggression: The moderating effect of peer rejection. *Journal of Youth and Adolescence*, 42(5), 662–674. doi:10.1007/s10964-012-9903-3 PMID:23299177
- Yang, F. (2021). Coping strategies, cyberbullying behaviors, and depression among Chinese netizens during the COVID-19 pandemic: A web-based nationwide survey. *Journal of Affective Disorders*, 281, 138–144. doi:10.1016/j.jad.2020.12.023 PMID:33321378
- Ybarra, M. (2004). Linkages between depressive symptomatology and internet harassment among young regular internet users. *Cyberpsychology & Behavior*, 7(2), 247–257. doi:10.1089/109493104323024500 PMID:15140367
- Yuchang, J., Junyi, L., Junxiu, A., Jing, W., & Mingcheng, H. (2019). The differential victimization associated with depression and anxiety in cross-cultural perspective: A meta-analysis. *Trauma, Violence & Abuse*, 20(4), 560–573. doi:10.1177/1524838017726426 PMID:29333963
- Zhang, S., & Leidner, D. (2018). From improper to acceptable: How perpetrators neutralize workplace bullying behaviors in the cyber world. *Information & Management*, 55(7), 850–865. doi:10.1016/j.im.2018.03.012
- Zhang, X., Han, Z., & Ba, Z. (2020). Cyberbullying involvement and psychological distress among Chinese adolescents: The moderating effects of family cohesion and school cohesion. *International Journal of Environmental Research and Public Health*, 17(23), 8938. doi:10.3390/ijerph17238938 PMID:33271852
- Zhu, C., Huang, S., Evans, R., & Zhang, W. (2021). Cyberbullying among adolescents and children: A comprehensive review of the global situation, risk factors, and preventive measures. *Frontiers in Public Health*, 9, 634909. doi:10.3389/fpubh.2021.634909 PMID:33791270
- Zhu, Y., Li, W., O'Brien, J. E., & Liu, T. (2019). Parent-child attachment moderates the associations between cyberbullying victimization and adolescents' health/mental health problems: An exploration of cyberbullying victimization among Chinese adolescents. *Journal of Interpersonal Violence*. Advance online publication. doi:10.1177/0886260519854559 PMID:31200608

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