IPA
International Journal of Psychology
Vol. 19, No. 2, Summer & Fall , 2025
PP. 87-119

Iranian **P**sychological
Association

How Childhood Emotional Neglect Becomes Cyberbullying Perpetration: A Structural Model of Alexithymia, Internalized Shame and Self-Compassion

Article Type: *Research Article*

Mehrafarin Pirzadeh, MA
in General Psychology, Department of Psychology, Tarbiat Modares University, Tehran, Iran.

Majid Azizi, PhD*
Candidate in Health Psychology, Department of Psychology, University of Tehran, Tehran, Iran.
ma.azizi2021@gmail.com
Orcid:000000020177-1478

Malek Bastami Katooli, PhD
Department of Psychology, Shahed University, Tehran, Iran.

Suhans Bansal, PhD
Department of USME, Delhi Technological University, New Delhi, India.

Received: 2026/02/4 Revised 2026/03/10 Accepted: 2026/03/17
Doi: 10.61882/ijpb.19.2.87

Cyberbullying Perpetration (CP) is a multifaceted and complex behavior that significantly affects individuals' mental health and social functioning due to enduring patterns of maladaptive interpersonal relationships. The present study examined the relationship between childhood emotional neglect (CEN) and CP within a structural model, focusing on the mediating roles of alexithymia, self-compassion, and internalized shame (IS). The sample consisted of 375 active Iranian social media users aged 18 to 35 who completed the Short Form of the Childhood Trauma Questionnaire, the Cyberbullying Perpetration Questionnaire, the Toronto Alexithymia Scale, the Internalized Shame Scale, and the

Short Form of the Self-Compassion Scale. Structural equation modeling (SEM) was used to test the hypothesized relationships. Findings revealed that CEN was directly associated with higher CP, and alexithymia emerged as the only significant mediator linking CEN to CP. Although CEN was related to increased IS and reduced self-compassion, these variables did not significantly mediate CP, suggesting that the impact of CEN operates primarily through disruptions in emotional processing and regulation. These results highlight the importance of preventive and therapeutic interventions aimed at enhancing emotional literacy, affect labeling, and emotion regulation skills among individuals with a history of CEN, emphasizing that anti-CP programs should prioritize reducing alexithymia and promoting adaptive emotional processing.

Keywords: childhood emotional neglect, cyberbullying, alexithymia, internalized shame, self-compassion.

In contemporary society, electronic technologies—particularly information and communication technologies (ICT)—play a central role in daily life, fundamentally transforming how social relationships are formed, maintained, and regulated (Choolabi et al., 2024). As inherently social beings, humans seek connection and belonging as fundamental sources of psychological security and personal identity. However, the rise and expansion of digital platforms, while facilitating interpersonal interaction, have simultaneously created new avenues for harmful and antisocial behaviors (Ying et al., 2024). Evidence indicates that although ICT has enabled unprecedented access to communication and information, it has also contributed to the emergence and intensification of novel social problems, including cyberbullying and online harassment (Zhang et al., 2023).

Bullying is not a new phenomenon, yet its transposition from physical to digital contexts has considerably expanded its scope, complexity, and psychological consequences (Ray et al., 2016). In this regard, cyberbullying perpetration (CP) is defined as an

intentional, repetitive behavior characterized by a power imbalance, enacted through digital media against individuals who are unable to effectively defend themselves (Smith et al., 2008). Unlike episodic online conflicts, cyberbullying is typically marked by persistence, unrestricted access, and the possibility of anonymity (Olweus, 2013)—features that enable perpetrators to repeatedly target victims and inflict lasting psychological harm through the creation of a "digital footprint" (Hashemi, 2021). These structural features make cyberbullying a unique context for exploring the emotional and interpersonal mechanisms underlying aggression.

To explain aggressive behaviors, the General Aggression Model (GAM; Anderson & Bushman, 2002) serves as one of the predominant theoretical frameworks. This model posits that aggression results from the interaction between individual dispositions and situational factors, highlighting the central role of emotional processes in the emergence of aggressive responses (Kokkinos et al., 2019). Within this framework, personality traits, emotion regulation capacities, and adverse early experiences—particularly various forms of childhood maltreatment—are regarded as key individual factors. Numerous studies have demonstrated that impulsivity, hostility, and childhood maltreatment, including emotional neglect, are associated with elevated levels of aggressive behaviors and cyberbullying (Vazsonyi et al., 2012; Runions et al., 2015; Choolabi et al., 2024; Hu et al., 2023; Azizi & Kishi, 2025).

Childhood emotional neglect (CEN), as a specific subtype of psychological maltreatment, refers to a chronic failure of caregivers to provide emotional responsiveness, support, and attunement during critical developmental stages (Kamboj et al.,

2023). Such neglect may occur through omission—consistent disregard for a child's emotional needs (Taillieu et al., 2016; Ban & Oh, 2016)—or through acts of commission, such as rejection, isolation, and emotional unavailability (Longman-Mills et al., 2015; Glaser, 2002). From an attachment theory perspective, emotionally unresponsive environments disrupt the development of secure attachment and contribute to enduring socioemotional maladjustment across the lifespan (Bowlby, 1982).

The consequences of CEN often include emotional distress, poor self-regulation, and the internalization of beliefs that one's emotions are invalid or unworthy (Kamboj et al., 2023). The absence of emotional support during childhood restricts opportunities to learn how to identify, make meaning of, and express emotions, thereby increasing reliance on maladaptive strategies such as aggression when faced with negative affect (Gross, 1999). Substantial evidence suggests that childhood maltreatment—particularly CEN—is linked to elevated levels of alexithymia, or the inability to identify and describe emotions, in adolescence and adulthood (Sifneos, 1973; Brown et al., 2016).

Within the framework of the GAM, disruptions in emotional processes—whether as stable traits or stress-related states—can impair emotional control and heighten susceptibility to aggressive responses (Anderson & Bushman, 2002). However, much of the prior literature has operationalized "emotional dysregulation" as a broad, unified construct, without distinguishing between its components, such as deficits in emotional processing versus difficulties in emotional regulation or inhibition (Runions et al., 2015; Hu et al., 2023). This approach leaves unclear which specific mechanisms play the

most central role in transmitting the effects of CEN to online aggressive behavior.

To address this theoretical gap, the present study focuses on differentiating between deficits in emotional processing—operationalized through alexithymia—and self-evaluative vulnerabilities. Chronic emotional deprivation deprives children of opportunities to learn emotion recognition and labeling, predisposing them to alexithymia in adolescence and adulthood (Krvavac & Jansson, 2021). Such deficits in emotional processing may increase vulnerability to cyberaggression and risky digital behavior, particularly in online environments lacking direct emotional cues (Wachs et al., 2018; Wachs et al., 2020; Dieter et al., 2023). Recent findings further suggest that alexithymia may serve as a key mediator linking negative online experiences to severe psychological outcomes, underscoring the need to examine the interrelations among CEN, alexithymia, and CP (Movahedi et al., 2024; Redondo & Luyten, 2021).

Beyond this proximal mechanism, CEN is also linked to more enduring vulnerabilities at the level of self-concept. Internalized shame (IS), as a consequence of chronic deprivation of affection and validation, is characterized by the internalization of beliefs of worthlessness and self-blame (Fowke et al., 2012; Tanzer et al., 2021; Ross et al., 2019). IS is associated with self-criticism, hypersensitivity to social evaluation, and avoidance of emotional expression—factors that can undermine emotion regulation and interpersonal functioning (Ferreira et al., 2019; Swerdlow et al., 2023). In online contexts, such vulnerabilities may manifest as social withdrawal or compensatory aggressive responses. Moreover, IS has been linked to emotional suppression, reduced self-compassion, and

internalizing problems such as depression and anxiety (Sun et al., 2020).

Self-compassion, as an adaptive emotion regulation resource, is also directly shaped by early emotional experiences. Emotional neglect can impair the development of self-kindness and emotional acceptance by reinforcing the belief that one's emotions lack significance (Tanzer et al., 2021; Dong et al., 2023). From an attachment theory perspective, such experiences hinder the development of a secure, compassionate sense of self and diminish one's capacity to respond to distress with understanding and warmth (Choolabi et al., 2024). Emotion regulation theories similarly conceptualize self-compassion as a critical adaptive strategy (Chang et al., 2019). Individuals with low self-compassion tend to engage in self-blame, anger, and negative emotional reactivity when facing difficulties—patterns that may manifest as aggression in online environments (Diedrich et al., 2014; Miyagawa et al., 2018; Richard et al., 2023).

Accordingly, the present study aims to refine existing theoretical models by examining the differential roles of proximal and distal mechanisms in the relationship between childhood emotional neglect and cyberbullying perpetration. Specifically, it investigates whether alexithymia—as a core deficit in emotional processing—and internalized shame and self-compassion—as self-evaluative vulnerabilities—jointly explain the association between CEN and CP. This approach provides a more nuanced understanding of the psychological pathways underlying online aggression and offers an empirical foundation for designing targeted interventions that promote

emotional awareness, self-regulation, and adaptive functioning in digital contexts.

Text In the present study, aimed at determining the mediating role of alexithymia, IS, and self-compassion, in the relationship between CEN and CP, the analytic sample comprised 375 participants, of whom 251 (66.9%) were female and 124 (33.1%) were male. The mean age of participants was 21.16 years (SD = 3.29). Regarding educational background, the majority of participants (80.0%, n = 300) held a diploma, followed by bachelor's (9.9%, n = 37), master's (6.9%, n = 26), and doctoral (3.2%, n = 12) degrees.

The distribution of social media platform usage among participants is presented. It is important to note that respondents could select multiple platforms; therefore, the percentages are not mutually exclusive and reflect the proportion of the total sample using each specific service. Telegram was the most prevalent platform, with 322 users (85.9%), followed by Instagram with 246 users (65.6%). YouTube was used by 61 participants (16.3%). Usage of other platforms was notably lower: WhatsApp, TikTok, and “other” platforms each had 8 users (2.1%), while Twitter and Pinterest each had 5 users (1.3%). Consequently, the proportion of non-users for each platform was highest for Pinterest and Twitter (98.7%), followed closely by WhatsApp and TikTok (97.9%), and “other” platforms (97.1%). The majority of participants reported using social media between three and five hours per day.

Method

This study employed a descriptive–correlational design analyzed through structural equation modeling (SEM). The target population comprised Iranian individuals aged 18-35 with active engagement in social media platforms (e.g., Instagram, Telegram, X, and others). Based on methodological recommendations for SEM (Kyriazos & Poga-Kyriazou, 2023), 375 active users were recruited via online convenience sampling, meeting the recommended sample range for path analysis (300–450). Post hoc power analysis indicated approximately 80% power to detect small-to-medium correlations ($r \approx .14$, $\alpha = .05$), confirming adequate statistical power. Demographic data (age, gender, and education) and social media use characteristics (daily usage time and preferred platforms) were also collected.

Data were collected online using the Porsline platform. Inclusion criteria required participants to be 18–35 years old, active on social media for at least one hour per day on three or more days per week, and to provide informed consent. Exclusion was limited to lack of participation willingness. Participants completed the demographic form, CTQ-SF, CPQ, TAS-20, ISS, and SCS-SF sequentially. All procedures adhered to ethical guidelines.

Instruments

Text Demographic Characteristics Checklist

A Demographic Characteristics Checklist gathered background information on gender, age, and social media use.

Childhood Trauma Questionnaire – Short Form (CTQ-SF)

To assess participants' experiences of childhood maltreatment, the CTQ-SF (Bernstein, 2003) was employed. This 28-item self-report instrument retrospectively evaluates adverse childhood experiences across five domains: emotional neglect, emotional abuse, physical neglect, physical abuse, and sexual abuse. Twenty-five items assess the frequency of adverse experiences, while three items capture tendencies to minimize or deny potentially traumatic events. Responses are rated on a 5-point Likert scale from 1 ("Never True") to 5 ("Always True"). Total scores range from 25 to 125, with higher scores reflecting more severe childhood trauma; subscale scores range from 5 to 25, with select items reverse-coded.

The CTQ-SF has demonstrated robust psychometric properties across both clinical and non-clinical populations. Confirmatory factor analyses consistently support its five-factor structure. Test–retest reliability over 2–6 months ranges from .79 to .86, and internal consistency (Cronbach's alpha) ranges from .79 to .94. The Persian version shows comparable reliability (α = .81–.97) and excellent model fit: $\chi^2(270)$ = 629.918, $p < .01$; CFI = .97; TLI = .97; RMSEA = .06, 95% CI [.054–.066]; SRMR =.06 (40,41). The CTQ-SF has been widely validated and frequently used in prior research (Ebrahimi et al., 2014; Laghaei et al., 2023).

This questionnaire was employed in the study conducted by Xie et al. (2024), and its validity has been empirically supported.

Cyberbullying Perpetration Questionnaire (CPQ)

Participants' engagement in online bullying was measured using the 13-item CPQ developed by Wright and Li (2013). Items assess the frequency of cyberbullying behaviors, rated on

a 5-point Likert scale from 1 ("Never") to 5 ("Always"). A total score is calculated by summing all items (range: 13–65), with higher scores indicating greater involvement in cyberbullying. Internal consistency is strong (α = .88), and confirmatory factor analysis indicates excellent fit (TLI =.95; CFI = .97; SRMR =.04; RMSEA =.04). The Persian adaptation demonstrates similarly robust psychometrics, with α = .85, test–retest reliability r = 0.67, and satisfactory CFA indices (χ^2/df = 2.613; GFI = .953; IFI = .950; CFI =.949; PCLOSE = .109; RMSEA = .058) (Sharafi Zadegan et al., 2024).

This questionnaire was employed in the study conducted by Wright et al. (2021), and its validity has been empirically supported.

Toronto Alexithymia Scale (TAS-20)

The TAS-20 (Bagby et al., 1994) was used to assess alexithymia, capturing difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking across 20 items. Responses are rated on a 5-point Likert scale from "Strongly Disagree" to "Strongly Agree," with five items reverse-scored (items 4, 5, 10, 18, 19). Subscale scores are summed to derive a total score, with higher scores indicating greater alexithymic tendencies. The TAS-20 demonstrates satisfactory internal consistency (α = .81–.84 for total, α = .66–.80 for subscales), and CFA supports the three-factor structure. Convergent and discriminant validity are well-established. The Persian version shows comparable reliability (α = .72 for total; α = .75–.85 for subscales), test–retest reliability .80–.87, and good model fit (GFI =.91; AGFI = .39; NNFI = .93; CFI = .92; RMSEA = .05) (Basharat, 2007). This questionnaire was

employed in the study conducted by Wright et al. (45), and its validity has been empirically supported.

This scale was employed in the study conducted by Liu et al. (2024), and its validity has been empirically supported.

Self-Compassion Scale – Short Form (SCS-SF)

The 12-item SCS-SF (Raes et al., 2011) assesses six facets of self-compassion: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification, with two items per facet (one positive, one negative). Responses are rated on a 5-point Likert scale from 1 ("Almost Never") to 5 ("Almost Always"), with negatively worded items reverse-scored. A mean score across all items provides a total self-compassion score, with higher scores reflecting greater self-compassion. Psychometric evaluation demonstrates high correlation with the full-length scale (r = .97) and excellent test–retest reliability (r = .92). CFA supports a six-factor structure with a second-order general factor. The Persian version demonstrates internal consistency α =.78 (total) and .68–.86 (subscales), test–retest reliability 0.90, and CFA supporting a three-factor structure (CFI = .89; RMSEA =.08; NFI =.84) (Khanjani et al., 2016).

This scale was employed in the study conducted by Haldorai et al. (2023), and its validity has been empirically supported.

Internalized Shame Scale (ISS)

The ISS (Cook, 2013) was administered to measure internalized shame. It comprises 30 items rated on a 5-point Likert scale (1 = "Never" to 5 = "Always"), capturing two dimensions: internalized shame (24 items) and self-esteem (6 items). Total scores are calculated by reverse-scoring self-esteem items and summing all items (range: 30–150), with

higher scores indicating greater internalized shame. Factor analyses show that the two factors explain 85% of variance. Convergent and discriminant validity are strong (r =.74 with self-criticism; r = -.70 with self-esteem). Internal consistency is excellent (α = .89–.96 for subscales; α = .95 for total score), and two-week test–retest reliability is .84. The Persian version demonstrates α = .94 for shame, α = .90 for self-esteem, content validity >.70, and good CFA fit (Rajabi & Abbasi, 2012). This questionnaire was employed in the study conducted by Haldorai et al. (2023), and its validity has been empirically supported.

This scale was employed in the study conducted by Lagerström et al. (2025), and its validity has been empirically supported.

Ethical Considerations

All participants were fully informed about the study's objectives and procedures. Participation was voluntary and anonymous, and confidentiality of responses was strictly maintained throughout the research process.

Resualt

Text Preliminary Data Screening and Assumption Testing

Analyses Before analyzing the data, the assumptions of normality and collinearity were first checked, the results of which are stated below. Calculating skewness and kurtosis of observed variables is a common way to determine normality. According to Hair et al. (2021), skewness values between approximately ±2 and kurtosis values within the range of ±2 are generally considered acceptable for assessing the normality of data in PLS-SEM. Values outside these ranges may indicate substantial deviations from normality, which could warrant data

transformation or alternative estimation approaches. The values obtained for the skewness and kurtosis of the variables indicate the fulfillment of the assumption of normality in the research variables.

Variance inflation factor (VIF) and tolerance index statistics were used to check the assumption of collinearity. Considering that none of the values related to the tolerance index is less than 0.40 and none of the values related to the variance inflation factor is greater than 10, it is possible to ensure the assumption of non-collinearity. Table 1 presents central tendency and dispersion statistics, as well as the correlations among the research variables.

Table 1
Descriptive Statistics and Correlations Among Study Variables

Variables	M	Sd	1	2	3	4	5
1. Cyberbullying Perpetration	27.97	6.76	1				
2. Internalized Shame	42.73	23.47	.258**	1			
3. Self-Compassion	38.41	8.43	-0.055	-.516**	1		
4. Alexithymia	51.91	12.90	.282**	.640**	-.259**	1	

Structural Model Analysis and Hypothesis Testing

The path analysis method was used to investigate the direct and indirect paths, the results of which are presented in the form of Figure 1 and the tables of direct and indirect effects.

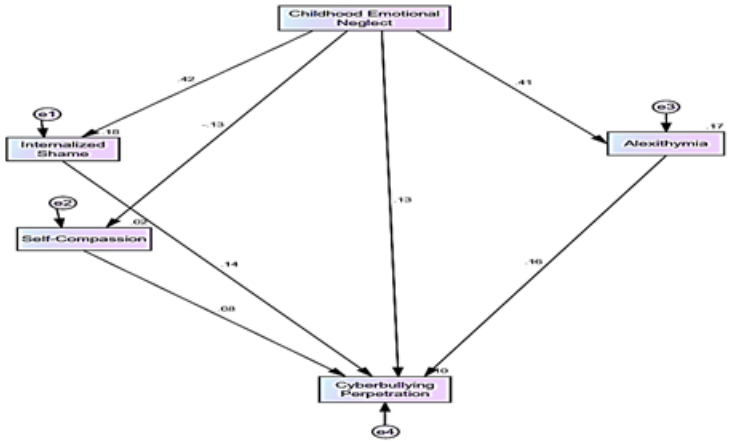

Figure 1. Conceptual Model of the Relationships Among Childhood Emotional Neglect, Alexithymia, Internalized Shame, Self-Compassion, and Cyberbullying Perpetration

Model Fit Indices

The fit indices of the conceptual model are shown in Table 2. As the contents of this table show, after removing the non-significant paths and allowing for error covariances between the mediator variables, the fit indices of the conceptual model indicate a good fit of the model. Absolute and adaptive fit indices were used to determine the hypothetical model fit. RMSEA and SRMR are the main indicators of model fit. For optimal fit of the model, the RMSEA value should be less than 0.1 and preferably less than .08. Also, the SRMR value should be less than .08 (Kline, 2023). For CFI, TLI, and IFI indices, values above .9 indicate model acceptance, and values above .95 indicate good model fit (Kline, 2023).

Table 2
Model Fit Indices for the Conceptual Model

Fit indices	Chi-Square	Chi-Square/df	RMSEA	SRMR	CFI	IFI	TLI	GFI
Conceptual model	3.781	1.891	.049	.015	.996	.996	.980	.996

The results indicate that CEN was significantly positively associated with CP (β = .132, p = .024). Furthermore, IS (β = 0.141, p = .009) and alexithymia (β = 0.158, p = .003) were significantly positively associated with CP, whereas self-compassion was not (β = .075, p = .127). CEN was also significantly associated with higher IS (β = .419, p < .001) and alexithymia (β = .409, p < .001), as well as lower self-compassion (β = -.129, p = .012) (Table 3).

Table 3
Direct Paths Among Study Variables in the Research Model

Independent variable	Dependent variable	b	β	Se	t	p
Childhood Emotional Neglect	Cyberbullying Perpetration	.168	.132	.075	2.252	.024
Internalized Shame	Cyberbullying Perpetration	.041	.141	.015	2.618	.009
Self-Compassion	Cyberbullying Perpetration	.06	.075	.039	1.526	.127
Alexithymia	Cyberbullying Perpetration	.083	.158	.028	2.947	.003
Childhood Emotional Neglect	Internalized Shame	1.86	.419	.209	8.912	<.001
Childhood Emotional Neglect	Self-Compassion	-.206	-.129	.082	-2.512	.012
Childhood Emotional Neglect	Alexithymia	.999	.409	.115	8.661	<.001

To determine the indirect associations, the bootstrap method was used with a 5,000-times sampling process. The analysis revealed a statistically significant indirect association of CEN with CP through alexithymia (b = .082, 95% CI [.022, .161], p = .012). In contrast, the indirect associations through IS (b = .075, 95% CI [-.006, .185], p = .064) and self-compassion (b = -.012, 95% CI [-.057, .009], p = .213) were not significant, as their confidence intervals included zero (Table 4).

Table 4
Indirect Paths Among Study Variables in the Research Model

Independent variable	Mediator variable	Dependent variable	b	95% CI Lower	95% CI Upper	p
Childhood Emotional Neglect	Alexithymia	Cyberbullying Perpetration	.082	.022	.161	.012
Childhood Emotional Neglect	Internalized Shame	Cyberbullying Perpetration	.075	-.006	.185	.064
Childhood Emotional Neglect	Self-Compassion	Cyberbullying Perpetration	-.012	-.057	.009	.213

Discussion

This study introduced a comprehensive model to examine the relationship between childhood emotional neglect (CEN) and cyberbullying perpetration (CP), with an emphasis on the mediating roles of alexithymia, internalized shame (IS), and self-compassion. The findings revealed that CEN was directly associated with CP, consistent with prior research (Wang et al., 2022) and with theoretical frameworks of emotion regulation suggesting that early emotional deprivation disrupts regulatory

capacities (Simon et al., 2024). Emotion regulation encompasses cognitive and behavioral strategies for modulating emotional responses (Gutierrez-Cobo et al., 2023). Persistent emotional neglect limits one's ability to recognize, manage, and express emotions, potentially leading to maladaptive coping mechanisms such as aggression and bullying as responses to negative affect (Morta-Herrera et al., 2025). Exposure to emotionally invalidating environments restricts adaptive coping skills, such as problem-solving or help-seeking, and fosters reliance on hostility and aggression (Taillieu et al., 2016; Whitman & Gottdiener, 2015). These findings suggest that CEN increases the risk of CP both by impairing emotion regulation and by promoting maladaptive coping styles.

The mediational pathways indicated that CEN was associated with alexithymia, corroborating prior evidence (Khan et al., 2022). Emotional neglect fosters avoidant coping tendencies, such as suppression and emotional disengagement (Azizi & Kishi, 2025; Martell & Puspitasari, 2023), which over time undermine emotional awareness and expression (Baykan & Can, 2023). Alexithymia has also been linked to cyberbullying perpetration, underscoring the difficulty individuals face in employing adaptive emotion regulation strategies (Wachs et al., 2018; Dieter et al., 2023). Those with high levels of alexithymia tend to rely on withdrawal, denial, or aggression rather than constructive emotional processing (Pris et al., 2023; Gutierrez-Cobo et al., 2023). Moreover, alexithymia is associated with diminished social skills and limited interpersonal communication (Karukivi & Saarijärvi, 2014; Keil et al., 2010), creating a context conducive to online aggression.

Regarding internalized shame (IS), the findings showed that CEN was positively related to IS. IS, particularly when triggered by critical or invalidating feedback, disrupts emotion regulation and reinforces maladaptive strategies such as self-blame and rumination (Paucsik et al., 2023; Din & Ahmad, 2021; Milia et al., 2021). However, the indirect path from CEN to CP through IS was nonsignificant, suggesting that IS is more closely related to internalizing outcomes such as anxiety and depression rather than overt aggression. This aligns with the General Aggression Model and prior evidence emphasizing emotion dysregulation as the core mechanism underlying aggressive behavior (Anderson & Bushman, 2002).

Another mediational pathway involved self-compassion. CEN was associated with lower self-compassion (Dong et al., 2023), consistent with attachment theory, which posits that early neglect fosters insecure attachment patterns (Bowlby, 1982). Repeated exposure to invalidation may lead individuals to internalize beliefs of worthlessness (Topino et al., 2025; Mirzaei et al., 2023), thereby hindering the development of self-kindness and compassionate responses to personal difficulties. However, the indirect pathway from self-compassion to CP was also nonsignificant, indicating that its role may be more relevant to internal emotional outcomes than to externalized aggressive behaviors (Luo et al., 2022; Neff & Vonk, 2009; Paucsik et al., 2023).

Overall, the results suggest that alexithymia serves as the central mediator linking CEN to CP, whereas IS and self-compassion play more peripheral and contextual roles. Conceptual overlap and shared variance among the mediators may have attenuated the statistical power of the IS and self-

compassion indirect pathways. Practically, this pattern highlights that interventions targeting emotional awareness, emotion regulation skills, and self-compassion could mitigate the adverse effects of CEN on online aggressive behaviors. Such interventions, combined with social skills and empathy training, may prevent CP and promote more adaptive coping strategies.

This study has several limitations that should be considered when interpreting the findings. First, it relied on self-report measures, which are susceptible to social desirability bias and subjective interpretation. Future research could strengthen the validity of the findings by incorporating behavioral tasks, peer reports, or implicit measures.

Second, the sample consisted exclusively of Iranian participants. While this provides valuable insight into these constructs within the Iranian cultural context, it limits the generalizability of the findings to other populations. Future studies are encouraged to test the proposed model across culturally diverse samples and conduct cross-cultural comparisons.

Third, Given the cross-sectional design of this study, causal inferences regarding the relationships between personality traits and epistemic attitudes cannot be made. Future investigations employing longitudinal or experimental methodologies are recommended to directly explore the causal pathways linking CEN to CP and to clarify the specific roles of mediating and moderating variables with greater precision.

This study proposes a novel framework that examines the mediating roles of alexithymia, internalized shame (IS), and self-compassion in the relationship between childhood emotional neglect (CEN) and cyberbullying perpetration (CP).

The findings indicate that alexithymia functions as the primary mechanism linking CEN to CP. In other words, individuals whose emotional needs were neglected during childhood are more prone to engage in online aggression not merely due to shame or low self-compassion, but because of disruptions in emotional literacy and self-regulatory capacities.

In contrast, IS and reduced self-compassion appear to represent markers of vulnerability rather than direct causal pathways. These findings suggest that interventions for individuals with a history of CEN should not focus solely on reducing shame or enhancing self-worth but should instead prioritize strengthening emotional awareness, affect labeling, and emotion regulation skills. Compassion-based interventions may be most effective when integrated with emotional literacy and emotion-processing training, as this combination provides a more stable foundation for adaptive emotional regulation and behavior in online interactions.

This research and clinical framework shifts the focus on cyberbullying perpetration from static personality traits to modifiable emotional mechanisms, offering new avenues for prevention and therapeutic intervention within digital environments.

Author Contributions

The first author was the senior author, the second were the supervisors and the third and for was the advisors.

Acknowledgment

I would like to express our gratitude to the seniors who participated in this research.

Conflicts of Interest

There are no conflicts of interest.

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