

Childhood Emotional Abuse and Cyberbullying Perpetration Are Mediated by Reactive Aggression and Moderated by Alexithymia and Internalized Shame

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Abstract

Cyberbullying perpetration (CP), a common form of online aggression, is an increasing concern for mental health and social functioning. This study explored the relationships among childhood emotional abuse (CEA), alexithymia, internalized shame (IS), reactive aggression (RA), and CP using a structural equation model. The sample consisted of 375 Iranian social media users aged 18–35. Data were gathered through self-report questionnaires and analyzed with structural equation modeling (SEM). Results showed that CEA was significantly associated with higher levels of alexithymia, IS, RA, and CP. Among these, RA was the only variable that significantly mediated the relationship between CEA and CP, indicating that impulsive, anger-driven reactions may serve as a psychological pathway connecting these experiences. IS and alexithymia did not show indirect links to CP, emphasizing a distinction between internal emotional consequences and outward behavioral tendencies. These findings suggest that CEA, combined with poor anger regulation and reactive emotional responses, increases the risk of CP. Therefore, prevention and intervention efforts should focus not only on the emotional aftereffects of abuse but also on anger regulation, impulse control, and threat assessment in online environments.

Introduction

The information technology (IT) development, along with the expanded use of electronic communication and social media as tools for socialization, has made CP an emerging issue [1]. Bullying has shifted from the physical world to the digital, and CP has appeared in the public sphere in a more hidden and novel form [2]. This phenomenon not only produces harmful psychological and social effects for victims but also makes attention to the psychological processes of its factors an important matter in psychology [3,4]. Research evidence suggests that pathological use of online behavior can stem from negative childhood experiences, including CEA [5], and may be linked to high-risk behaviors in virtual spaces such as CP [6]. CEA, which can appear as humiliation, rejection, threats, or emotional neglect [7], may be related to aggressive behaviors online through emotion processing, cognitive beliefs, and interpersonal relationships [4].

Studies indicate that several factors, including impulsivity and poor self-control [8], hostility and hostile aggression [9], low empathy [10], and experience of various forms of childhood maltreatment [11,12], such as CEA, can predict CP. Despite vast evidence on the relationship of childhood abuse, particularly CEA, with aggressive behavior and emotion regulation problems, such variables have been examined separately or in pairs in previous studies [13]. There are a few studies that simultaneously explore roles of emotional pathways (Alexithymia), moral and self-worth, and moral evaluation (IS), and impulsive behavioral responses (RE) within a unified model for explaining CP. This research gap underscores the need to test multi-mediator, process-oriented models to better understand the mechanisms of CP.

In this regard, CEA, as a form of psychological abuse, has received little attention regarding its relationship with CP despite its great importance. CEA includes any non-physical behavior or attitude used to control, dominate, punish, or isolate another person through humiliation or fear [14]. This form of

abuse can manifest as verbal attacks, dominance, control, isolation, ridicule, or using personal information to cause harm [15].

Obviously, CEA is not a short-term crisis in a child's life, and its impact can be deep and long-lasting, as this form of maltreatment tends to have more harmful effects on adjustment than other types of abuse [16]. Research has shown that individuals who have experienced CEA display higher levels of emotional sensitivity, anxiety, and aggressive reactions compared to others. More specifically, prolonged experience of CEA can shape characteristics in a child that may later relate to aggressive behaviors, including aggression in online spaces [17]. According to the general aggression model, harmful experiences such as CEA can contribute to hostile behaviors through the interaction of emotional states (anger, anxiety) and cognitive processes (hostile interpretations, aggressive scripts).

Studies suggest that childhood maltreatment is a significant etiological factor in the development of Alexithymia [18]. Furthermore, victims of CEA show higher levels of Alexithymia than those without a history of abuse [19]. Alexithymia represents a subtle type of difficulty in emotion regulation. Growing up in abusive or violent environments is linked to failures in learning how to regulate emotions and tolerate negative feelings. Children raised in such places lack proper role models and reinforcement for coping strategies and emotional expressiveness [20]. By limiting both cognitive and emotional empathy, Alexithymia prevents the ability to understand how one's behavior affects others [21]. This limitation is intensified in online interactions where nonverbal cues are rare. As it disrupts moral sensitivity and emotional inhibition [22], it can contribute to cyber-aggressive behavior.

From a developmental perspective, Alexithymia and IS are complementary but distinct consequences of CEA [23]. Alexithymia reflects difficulties in recognizing and processing emotions, while IS reflects a persistent negative self-evaluation [24]. When these two conditions coexist, they reduce the ability to regulate emotions and control behavior, making them more likely to react impulsively and aggressively in threatening interpersonal situations. In this regard, RE can be seen as the behavioral outcome of these emotional-cognitive difficulties [25].

Consistent with this perspective, previous studies suggest that childhood abuse, including CEA, can also contribute to the development of IS [26]. Children who are repeatedly humiliated, blamed, or rejected gradually internalize these messages. These internalized messages create enduring self-directed shame, which manifests as IS. People with IS often see themselves as defective or worthless [27]. Moreover, when children do not receive emotional support or validation from parents, this failure can create maladaptive cognitive-emotional patterns that create chronic shame [28].

On the other hand, experience of CEA can also increase the likelihood of RE [29]. Families with rejection, humiliation, or threat shape impulsive and aggressive emotional responses in interpersonal situations by creating certain social processing patterns, such as hostile attribution biases and high sensitivity to rejection cues [30]. Theoretically, according to the social information-processing model, children who have experienced CEA are more likely to interpret others' actions as hostile due to biases in processing

social cues. Misinterpretations are even more likely in online interactions where social cues are limited. Consequently, these biases can increase RE in such contexts [31].

Individuals prone to RE may react strongly to ambiguous messages, criticism, or delays in online responses, experiencing great anger. Furthermore, when they cannot accurately evaluate the outcomes of their behavior, they may engage in aggressive behaviors, such as humiliation, threats, or insults, as a way to relieve tension or gain a sense of control [32]. Therefore, CEA appears to be related to RE by reinforcing cognitive and emotional biases, and RE, in turn, links to CP by facilitating impulsive responses. Therefore, RE can be considered a key and novel mediator in explaining the link between CEA and CP.

In summary, CEA may be associated with multiple pathways leading to CP, including through impaired emotional processing (alexithymia), the formation of persistent negative self-concept (IS), and the facilitation of impulsive responses in threatening situations (RE). Examining these mechanisms simultaneously within a structural model may provide a deeper understanding of the underlying processes involved in CP. Therefore, drawing upon the General Aggression Model and the social information processing framework, the present study aims to investigate the relationship between CEA and CP by examining whether these associations can be explained through specific emotional and cognitive processes, including alexithymia, IS, and RE.

Materials and Methods

Research Design

A descriptive-correlational design was utilized in this research, applying Structural Equation Modeling (SEM) as the primary analytical approach.

Participants and Sampling Procedure

The target population of this study consisted of Iranian social media users between 18 and 35 years of age, with active presence on platforms such as Instagram, Telegram, and X. Following the guidelines proposed by Kyriazos and Poga-Kyriazo for SEM-based research, a total of 375 individuals were recruited using an online convenience sampling strategy. This sample size falls within the recommended range of 300 to 450 participants. A post-hoc power analysis revealed that the sample had sufficient statistical power (approximately 80%) to detect small-to-medium effect sizes ($r \approx 0.14$, $\alpha = 0.05$). Participation was conditional upon: (a) voluntary informed consent, (b) age between 18 and 35 years, and (c) regular use of social media for at least one hour per day, three or more days per week—ensuring adequate online engagement. Individuals who chose to withdraw at any point were excluded from the study.

Instruments

Demographic Characteristics Checklist

Background data were collected using a researcher-developed questionnaire that included items assessing age, gender, educational level, daily time spent on social media, and preferred social networking platforms.

Childhood Trauma Questionnaire-Short Form (CTQ-SF)

CEA was assessed with the 28-item CTQ-SF (Bernstein et al., 2003), measuring emotional abuse, emotional neglect, physical abuse, physical neglect, and sexual abuse. Responses use a five-point Likert scale (1 = “never true” to 5 = “very often true”), with higher scores indicating greater trauma. The Persian version demonstrated high internal consistency ($\alpha = 0.81-0.97$) and acceptable fit indices ($\chi^2(270) = 629.918$, $p < 0.01$, CFI = 0.97, TLI = 0.97, RMSEA = 0.06, SRMR = 0.06) (Ebrahimi et al., 2014; Laghaei et al., 2023).

Cyberbullying Perpetration Questionnaire (CPQ)

The 13-item CPQ (Wright and Li, 2013) measured engagement in online bullying behaviors on a five-point Likert scale (1 = “never” to 5 = “always”), with higher scores reflecting more frequent cyberbullying. The Persian version showed good reliability ($\alpha = 0.85$), test–retest reliability of 0.67, and satisfactory model fit ($\chi^2/df = 2.61$, GFI = 0.953, CFI = 0.949, RMSEA = 0.058) (Sharafi Zadegan et al., 2024).

Toronto Alexithymia Scale (TAS-20)

Alexithymia was measured with the 20-item TAS-20 (Bagby et al., 1994), assessing difficulty identifying feelings, difficulty describing feelings, and externally oriented thinking. Five items are reverse-scored; higher total scores indicate greater alexithymia. The Persian version demonstrated acceptable reliability (total $\alpha = 0.72$; subscales $\alpha = 0.75-0.85$), test–retest reliability 0.80–0.87, and good model fit (GFI = 0.91, NNFI = 0.93, CFI = 0.92, RMSEA = 0.05) (Besharat, 2007).

Internalized Shame Scale (ISS)

Internalized shame was assessed with the 30-item ISS (Cook, 2013), including two dimensions: shame (24 items) and self-esteem (6 items). Items are rated 1–5; self-esteem items are reverse-scored. Higher total scores reflect greater internalized shame. The Persian version demonstrated high reliability ($\alpha = 0.94$ for shame, $\alpha = 0.90$ for self-esteem), two-week test–retest reliability of 0.84, and strong CFA fit (Rajabi & Abbasi, 2011).

Buss–Perry Aggression Questionnaire (BPAQ)

Reactive aggression was measured with the 29-item BPAQ (Buss & Perry, 1992), which includes physical aggression, verbal aggression, anger, and hostility. Items are rated 1–5; two items are reverse-scored. In this study, reactive aggression was captured using anger and hostility subscales. The Persian version showed strong reliability ($\alpha = 0.82-0.93$), test–retest 0.78, good convergent validity (0.57–0.78), and excellent model fit (SRMR = 0.03, TLI = 0.97, RMSEA = 0.03) (Afshari et al., 2024; Samani, 2008).

Data Collection Procedure

Data were gathered via an online survey hosted on the Porsline platform. Invitations containing the survey link were disseminated across various social media channels, including Instagram, Telegram, and X. Interested individuals accessed the questionnaire by clicking the link and were first directed to an introductory page outlining the study's purpose, confidentiality assurances, and informed consent terms. Completion of the survey took approximately 15 minutes on average.

Ethical Considerations

This article was derived from a research plan approved by Rafsanjan University of Medical Sciences with registration number 404182 and an ethics code issued by Rafsanjan University of Medical Sciences with number IR.RUMS.REC.1404.237. All ethical considerations, including confidentiality, privacy, and informed consent from the participants, were obtained in the study.

Results

Participants

In this study, which aimed to examine the mediating roles of alexithymia, IS, and RA in the relationship between CEA and CP, data from 375 participants were analyzed. Of these, 251 participants (66.9%) were female, and 124 (33.1%) were male. The mean age of the sample was 21.16 years (SD = 3.29).

Regarding educational attainment, the majority of participants held a high school diploma (80.0%, n = 300), followed by those with a bachelor's degree (9.9%, n = 37), a master's degree (6.9%, n = 26), and a doctoral degree (3.2%, n = 12).

Social Media Usage

Participants were allowed to select more than one social media platform; therefore, the reported percentages are independent and do not sum to 100%. Among the platforms, Telegram was the most frequently used, with 322 users (85.9%), followed by Instagram with 246 users (65.6%). YouTube was used by 61 participants (16.3%). Other platforms accounted for substantially lower usage rates: WhatsApp, TikTok, and the "other" category were each used by 8 participants (2.1%), while Twitter and Pinterest were each used by 5 participants (1.3%). Consequently, the highest rates of non-use were observed for Pinterest and Twitter (98.7%), followed by WhatsApp and TikTok (97.9%). Most respondents reported spending approximately three to five hours per day on social media.

Preliminary Data Screening and Assumption Testing

Before conducting the main analyses, the statistical assumptions were examined. Data normality was assessed by calculating skewness and kurtosis indices. According to the criteria proposed by Hair et al. (2021), skewness and kurtosis values within ± 2 are considered acceptable for PLS-SEM analyses. The

results indicated that all observed variables fell within this range, supporting the assumption of normality.

Multicollinearity was evaluated using tolerance values and variance inflation factors (VIF). As none of the tolerance values were below 0.40 and none of the VIF values exceeded 10, there was no evidence of multicollinearity among the study variables. Descriptive statistics and correlation coefficients for the study variables are presented in Table 1.

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. Reactive Aggression	73.34	18.43	.355**	.641**	1		
4. Alexithymia	51.91	12.90	.282**	.640**	.602**	1	
5. Childhood Emotional Neglect	10.71	5.28	.245**	.419**	.301**	.409**	1

****P<0.01* P<,0.05**

Structural Model Analysis and Hypothesis Testing

Path analysis was conducted to examine the direct and indirect effects within the proposed model. The standardized path coefficients are presented in Figure 1, where solid lines represent statistically significant paths and dashed lines indicate non-significant pathways.

Model Fit Indices

The fit indices for the conceptual model are displayed in Table 2. Following the removal of non-significant paths and the addition of error covariances between mediator variables, the model demonstrated good fit across multiple indices. Model fit was evaluated using both absolute and incremental fit indices. Following Kline (2023), acceptable model fit was determined by RMSEA < .08, SRMR < .08, and CFI, TLI, and IFI values > .90, with values > .95 indicating excellent fit.

Table 2. Model Fit Indices for the Conceptual Model

Fit indices	Chi-Square	Chi-Square/df	RMSEA	SRMR	CFI	IFI	TLI	GFI
Conceptual model	2.934	2.934	0.035	0.013	0.999	0.999	0.993	0.997

Direct Associations

As presented in Table 3, CEA ($\beta = .300, p < .001$) and RA ($\beta = .264, p < .001$) were significant positive predictors of CP. IS negatively predicted CP ($\beta = -.117, p = .034$), whereas alexithymia did not emerge as a significant predictor ($\beta = .046, p = .266$). Additionally, CEA significantly predicted all three proposed mediators: IS ($\beta = .556, p < .001$), RA ($\beta = .426, p < .001$), and alexithymia ($\beta = .460, p < .001$).

Table 3. Direct Paths Among Study Variables in the Research Model

Independent variable	Dependent variable	b	β	Se	t	p
Childhood Emotional Abuse	Cyberbullying Perpetration	0.536	0.3	0.114	4.686	<0.001
Internalized Shame	Cyberbullying Perpetration	-0.034	-0.117	0.016	-2.12	0.034
Reactive Aggression	Cyberbullying Perpetration	0.098	0.264	0.019	5.195	<0.001
Alexithymia	Cyberbullying Perpetration	0.03	0.058	0.027	1.111	0.266
Childhood Emotional Abuse	Internalized Shame	3.416	0.556	0.264	12.93	<0.001
Childhood Emotional Abuse	Reactive Aggression	2.058	0.426	0.226	9.115	<0.001
Childhood Emotional Abuse	Alexithymia	1.553	0.46	0.155	10.008	<0.001

Indirect Associations of Variables with CP

Bootstrapping analysis with 5,000 resamples was conducted to examine indirect effects (see Table 4). The results demonstrated that RA significantly mediated the relationship between CEA and CP ($b = .201, 95\% \text{ CI } [.092, .338], p = .001$), as evidenced by the confidence interval excluding zero. However, IS did not significantly mediate this relationship ($b = -.116, 95\% \text{ CI } [-.264, .009], p = .073$); although the p-value approached conventional significance levels, the confidence interval included zero. Alexithymia also failed to function as a significant mediator ($b = .047, 95\% \text{ CI } [-.045, .153], p = .311$), with the confidence interval encompassing zero.

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 Abuse	Internalized Shame	Cyberbullying Perpetration	-0.116	-0.264	0.009	0.073
Childhood Emotional Abuse	Reactive Aggression	Cyberbullying Perpetration	0.201	0.092	0.338	0.001
Childhood Emotional Abuse	Alexithymia	Cyberbullying Perpetration	0.047	-0.045	0.153	0.311

Discussion

The present study aimed to address the existing gap in the research literature by examining the simultaneous roles of Alexithymia, IS, and RE in the relationship between CEA and CP.

The results demonstrated that CEA directly predicts CP, which is consistent with the findings of Kircaburun et al. [17]. Individuals with a history of CEA often have difficulties in emotion regulation [33]. Emotion regulation, as a socio-emotional skill, is crucial for regulating aggressive tendencies [34]. People who experience childhood abuse frequently adopt maladaptive strategies, such as emotional suppression, rumination, and catastrophizing, to overcome negative feelings [35]. These strategies do not alleviate negative emotions like anger and anxiety and may even increase their duration and intensity [36].

The results of a direct path from CEA to Alexithymia support research by Sutherland et al. [37]. Childhood abuse, such as CEA, often involves chronic invalidation of emotions, which interferes with the development of emotional identification and expression skills [38]. In these settings, children view their feelings as unacceptable or unexpressive [39], and they may use strategies such as emotional suppression to cope with psychological tension [40]. These mechanisms, which include suppressing distress, avoiding thoughts or memories related to the abusive experience [41], and turning away from these feelings [42] for self-protection, can reduce tension in the short term but lead to disconnection from one's internal experiences and deficits in emotional experience, understanding, and expression. Moreover, these emotionally unsafe environments often coincide with insecure attachment, reflecting difficulties in how individuals relate to important others [43].

The findings also show that Alexithymia directly predicts CP, consistent with Wachs et al. [44]. Alexithymia leads to limitations in social attachment and social skills; in other words, individuals may struggle to have healthy interpersonal relations, emotional bonds, and social behavior [45]. This pattern underlies hostile interactions with others [46]. Hostile interactions can normalize aggressive behavior and increase the likelihood of aggressive responses in conflicts. In these circumstances, aggression may be experienced as a tool to control or indirectly express internal tension. In addition, individuals with

Alexithymia often use maladaptive coping mechanisms in difficult situations [47], with avoidance style being a common approach [48]. In this regard, prior studies indicate that Alexithymia creates conditions for maladaptive online interactions not by increasing hostility directly but instead by undermining emotion recognition, lowering empathy, and promoting a tendency toward avoidant coping strategies [49]. In this circumstance, online spaces, which lack interpersonal regulatory cues, become a context for indirectly releasing emotional tension and displaying aggressive behaviors.

The results indicated a direct path from CEA to IS. Fowke et al. [50] consider CEA as a predictor of IS, which aligns with the current findings. CEA often comprises messages that challenge a person's self-worth and induce feelings of inadequacy. Within such environments, individuals gradually develop self-criticism [51], focusing repeatedly on shortcomings. It also internalizes negative self-evaluations, changing them into their identity [52], ultimately fostering IS. These environments are also associated with reduced self-compassion [53].

The findings also indicated a direct path from IS to CP. Furthermore, IS intensifies negative self-conscious emotions, leading to withdrawal, self-disgust, and feelings of self-hatred. Over time, these emotions may be expressed behaviorally as aggression [54]. Additionally, since shame represents a type of social pain, similar to physical pain, it can trigger defensive, maladaptive aggression, even against innocent individuals [55]. Therefore, individuals who chronically experience IS may use aggression as a way to overcome and defend against this negative emotion. Social interactions and conflicts online that elicit shame can predict CP.

The results indicated a direct pathway from CEA to RE. People who experience CEA often have fragile self-esteem [56]. Being raised in an abusive environment prevents the child from receiving the support and validation needed to create self-esteem [57] and exposes them to higher levels of hostility and violence [58]. Consequently, when facing social rejection or humiliation, RE may emerge as a defensive reaction and a means to release anger. Emotionally, CEA is linked with emotional instability [59], including rapid changes in mood, sensitivity to social rejection, and difficulty in returning to a neutral emotional state [60]. This instability can exacerbate RE due to disrupted mood regulation [61].

The findings also showed that RE directly predicts CP, consistent with the study by Ang et al. [62]. Individuals with high RE have strong motivations for anger and revenge [63, 64], which may predict CP. In ambiguous or conflicting interpersonal interactions, seeking revenge as a way to regain control or restore perceived justice may also predict CP [65]. In other words, revenge can function both as a reactive coping strategy and as a main motivation for CP. Impulsivity is another trait related to RE [66], reflected in the lack of behavioral control [67]. Impulsive individuals are weak in inhibiting actions [68] and do not consider the consequences of their behavior [69]. These patterns may promote rapid, unconsidered actions in online environments, where social restraints are minimal, and increase engagement in high-risk behaviors such as CP. Therefore, RE is linked to CP through anger, revenge motives, and impulsivity.

The findings also revealed that, despite the direct significant paths from CEA to IS and from IS to CP, the indirect path from CEA to CP via IS was not significant. Clinically, IS mainly appears as negative self-evaluation, feelings of inadequacy, and a tendency to social isolation [70]. It is usually more connected to internalized emotional patterns, such as depression and anxiety, than to overt behaviors like aggression or cyberbullying [71]. In these emotional patterns, most psychological energy is spent on imperfect self-management, leaving little direction to others. Therefore, IS alone is unlikely to directly generate CP without the activation of externalizing defense mechanisms (such as RE). The present study also suggests that IS contributes to hostile online behavior, including CP, not alone but mainly when combined with externalized emotional processes like RE. In other words, IS plays a predisposing role, requiring mediating mechanisms to direct internal emotional energy outward.

The results showed that Alexithymia does not play a mediating role due to the non-significant indirect path from CEA to CP through Alexithymia. Clinically, Alexithymia reflects difficulty in emotional awareness and processing rather than a natural tendency for hostility [72]. Individuals with higher Alexithymia experience negative emotions as vague, physical, and internalized. Therefore, this inability rarely exists simultaneously with uncontrolled anger and impulsive actions. Therefore, without active externalizing constructs like RE, a strong direct path from Alexithymia to CP is unlikely.

Overall, findings of this research support a process model in which CEA increases the risk of CP through the facilitation of impulsive and defensive responses. RE plays a central role in the relationship between internal emotional harm and aggressive online behavior, highlighting the theoretical innovation of this model.

Limitations and Future Research

Several limitations should be acknowledged. First, the use of self-report measures may have introduced response bias. Second, as the study was conducted within an Iranian sample, the generalizability of the findings to other cultural contexts may be limited. Third, the model focused on a restricted set of cognitive–emotional variables, and other potentially influential factors were not included.

Future research may address these limitations by employing multi-source assessment methods, recruiting more culturally diverse samples, and incorporating additional variables to further extend and refine the proposed model.

Conclusion

This study provides a novel understanding of how childhood emotional abuse (CEA) can evolve into cyberbullying perpetration (CP). The results demonstrate that CEA influences CP both directly and through maladaptive emotional processes, particularly reactive aggression (RA). The findings highlight that the transition from victim to aggressor depends not only on the extent of emotional harm but also on how anger and negative affect are managed. The mediating role of RA suggests that individuals prone to impulsive and retaliatory reactions to threat or humiliation are more likely to engage in CP. In

contrast, internalized shame (IS) and alexithymia, although outcomes of CEA, do not constitute primary causal mechanisms linking CEA to CP. This distinction underscores that internalized emotional distress does not necessarily translate into aggressive acts without RA. Practically, the results call for interventions that target anger regulation, impulse control, and reinterpretation of provocations, thereby strengthening emotion regulation capacities that can prevent online aggression.

Declarations

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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Ethical Approval

This study was approved by the Ethics Committee of Rafsanjan University of Medical Sciences in accordance with the guidelines and regulations set forth by the Iranian Ministry of Health and Medical Education. The protocol number for this approval is 404182, and the ethics code is IR.RUMS.REC.1404.237.

Consent to Participate

Informed consent was obtained from all individual participants included in the study. **Consent to Publish**

Not applicable.

Data Availability

The datasets generated during and/or analysed during the current study are not publicly available due to the sensitive nature of the data and institutional restrictions but are available from the corresponding author on reasonable request.

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Figures

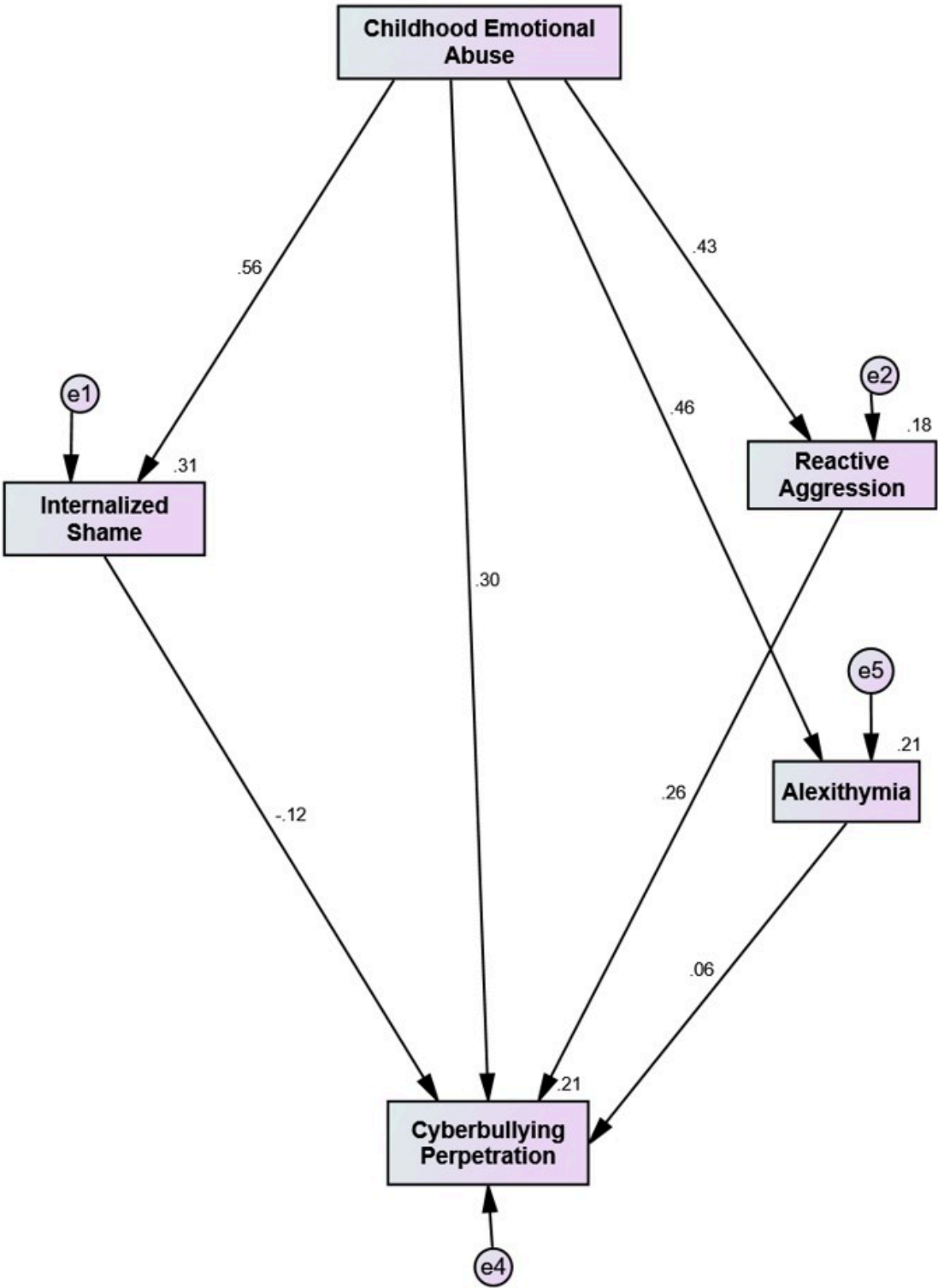


Figure 1

Conceptual Model of the Relationships Among Childhood Emotional Neglect, Alexithymia, Internalized Shame, Reactive Aggression, and Cyberbullying Perpetration