

THE RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND AGGRESSIVE BEHAVIOR:
THE MEDIATING ROLE OF DIFFICULTIES IN EMOTIONAL REGULATION AMONG
YOUNG ADULTS

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Abstract

Childhood trauma is associated with a range of later psychological and behavioral difficulties, including aggressive behavior. The present study examined the relationship between childhood trauma and aggressive behavior among young adults and investigated whether difficulties in emotional regulation help explain this relationship. A cross-sectional, correlational design was used with 150 undergraduate students aged 18–25 years from Iqra National University, Peshawar, including 75 males and 75 females. Childhood trauma, difficulties in emotional regulation, and aggressive behavior were assessed using the Childhood Trauma Questionnaire–Short Form (CTQ-SF), Difficulties in Emotion Regulation Scale–Short Form (DERS-16), and Buss-Perry Aggression Questionnaire (BPAQ), respectively. The instruments demonstrated acceptable to good internal consistency in the present sample, with Cronbach's alpha coefficients of .83, .84, and .81, respectively. Descriptive results indicated moderate levels of childhood trauma ($M = 74.32$, $SD = 18.46$), emotion-regulation difficulties ($M = 48.17$, $SD = 11.23$), and aggressive behavior ($M = 82.64$, $SD = 19.37$). Childhood trauma was positively correlated with aggressive behavior, $r(148) = .52$, $p < .001$, and difficulties in emotional regulation were also positively correlated with aggression, $r(148) = .61$, $p < .001$. Childhood trauma was significantly associated with emotional-regulation difficulties, $r(148) = .57$, $p < .001$. Mediation analysis indicated that emotional-regulation difficulties partially mediated the association between childhood trauma and aggression. The indirect effect was significant, with approximately 40% of the total effect accounted for by the mediation pathway. Gender differences were not statistically significant for childhood trauma, emotional-regulation difficulties, or aggressive behavior. The findings support the relevance of Social Learning Theory and Attachment Theory for understanding how adverse childhood experiences may remain linked to behavioral responses in young adulthood. The results have practical implications for trauma-informed university counseling, emotional-regulation skills training, and early identification of students who may be at risk.

Keywords: Childhood trauma, aggressive behavior, emotional regulation, young adults, Social Learning Theory, Attachment Theory, CTQ-SF, DERS-16, BPAQ, Pakistan

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1. Introduction

Background

Childhood is a formative period in which patterns of emotional functioning, interpersonal expectations, and behavioral responses develop through interactions with caregivers and the wider social environment. When this period is characterized by abuse, neglect, violence, or other adverse experiences, the consequences may extend beyond childhood and become relevant to functioning during adolescence and young adulthood. Aggressive behavior is one outcome that has received sustained attention because of its consequences for interpersonal relationships, educational functioning, community safety, and psychological well-being. The thesis underlying this manuscript identifies childhood trauma as an important developmental factor associated with later aggression and focuses specifically on difficulties in emotional regulation as a possible mechanism linking early adversity with aggressive behavior.

Childhood trauma may involve emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. These experiences can interfere with the development of emotional, cognitive, and social skills, particularly when adversity is repeated or occurs in relationships with primary caregivers. The original study conceptualized trauma as experiences occurring before 18 years of age and assessed them retrospectively using the CTQ-SF. This approach permits the study of childhood adversity as a cumulative developmental experience rather than limiting analysis to a single traumatic event.

Aggressive behavior is similarly multidimensional. The BPAQ conceptualizes aggression through physical aggression, verbal aggression, anger, and hostility. This distinction is useful because aggression is not limited to overt physical acts. Anger reflects an affective component, hostility reflects a cognitive component, and verbal aggression may occur even when physical aggression is absent. In university settings, these dimensions may appear in interpersonal conflict, arguments, hostile interpretations, relationship difficulties, and other responses to perceived provocation.

Emotional regulation provides an important bridge between early experience and later behavior. Difficulties in emotion regulation may include problems accepting emotional responses, maintaining goal-directed behavior when distressed, controlling impulses, accessing effective regulation strategies, maintaining emotional awareness, and achieving emotional clarity. The DERS-16 operationalizes these difficulties as a higher-order indicator of dysregulation. The theoretical premise of the present study is that adverse childhood experiences may disrupt the development of effective regulatory skills, thereby increasing the likelihood that intense emotional states will be expressed through maladaptive or aggressive responses.

The Pakistani context makes this question particularly relevant. The thesis notes that trauma may be underrecognized and that access to mental health services remains limited. University students may simultaneously face academic pressures, family expectations, peer comparison, relationship challenges, identity development, and career uncertainty. For students with histories of childhood adversity, these contemporary stressors may interact

with previously learned patterns of threat appraisal and emotion regulation. The present study therefore addresses a local research gap by examining childhood trauma, emotional-regulation difficulties, and aggression together in a university sample from Peshawar.

Problem Statement

Childhood trauma has consistently been associated with externalizing and aggressive behavior, but the processes through which early adversity remains connected to aggression in young adulthood require further examination. The study from which this manuscript was developed argues that emotional dysregulation may represent one important pathway. Individuals exposed to abuse or neglect may have greater difficulty tolerating distress, controlling impulses, sustaining goal-directed behavior, and using adaptive strategies during emotionally activating situations. When these difficulties occur in contexts involving provocation or perceived threat, aggressive responding may become more likely.

Although international research has examined trauma, emotion regulation, and aggression, the thesis identifies limited research examining these constructs simultaneously among university students in Pakistan and particularly in Peshawar. The present manuscript consequently focuses on whether childhood trauma is associated with aggressive behavior, whether emotional-regulation difficulties are associated with aggression, and whether emotional-regulation difficulties statistically mediate the relationship between childhood trauma and aggressive behavior.

Research Questions

- To what extent does childhood trauma contribute to aggressive behavior among university students in Peshawar?
- How do difficulties in emotional regulation mediate the relationship between childhood trauma and aggressive behavior?
- Are there significant gender differences in childhood trauma exposure, emotional-regulation difficulties, and aggressive behavior among young adults?

Objectives

- To investigate the relationship between childhood trauma and aggressive behavior among young adults at Iqra National University, Peshawar.
- To examine the mediating role of emotional-regulation difficulties in the relationship between childhood trauma and aggressive behavior.
- To explore gender differences in childhood trauma, emotional regulation, and aggressive behavior among university students.

Hypotheses

- H₁: There is a significant positive relationship between childhood trauma and aggressive behavior among young adults.
- H₂: There is a significant positive relationship between emotional-regulation difficulties and aggressive behavior among young adults.

- H₃: Emotional-regulation difficulties significantly mediate the relationship between childhood trauma and aggressive behavior among young adults.

2. Literature Review

Childhood Trauma

Childhood trauma refers to highly distressing experiences during childhood that exceed a child's available coping resources. In the present study, the construct includes emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect, consistent with the domains assessed by the CTQ-SF. The retrospective assessment of childhood maltreatment is important because the study is concerned with developmental experiences that occurred before the participants reached adulthood.

Research reviewed in the thesis suggests that childhood maltreatment is widespread internationally and that emotional abuse and neglect are important forms of adversity. The consequences of maltreatment may be particularly pronounced when children experience multiple forms of victimization. Polyvictimization can increase the cumulative burden on emotional and behavioral development, potentially creating persistent vulnerabilities that remain relevant in adolescence and young adulthood.

The developmental consequences of childhood trauma can be understood at psychological and neurobiological levels. Repeated stress may influence systems involved in threat detection, emotional reactivity, and stress regulation. The thesis further emphasizes that chronic childhood stress may affect the development and functioning of the prefrontal cortex, amygdala, and hypothalamic-pituitary-adrenal axis. These processes offer one explanation for why trauma-related vulnerabilities may remain active even after the original adverse circumstances have ended.

Types of Childhood Trauma

Physical abuse involves intentional physical force that causes or risks injury. Emotional abuse includes humiliating, threatening, belittling, rejecting, or otherwise psychologically harmful interactions. Sexual abuse involves sexual acts or behaviors directed toward a child. Physical neglect refers to failure to provide adequate physical care, supervision, shelter, nutrition, or medical attention, whereas emotional neglect reflects insufficient emotional support, responsiveness, attention, and connection. The thesis highlights that these categories may have different developmental manifestations but can also co-occur.

Emotional forms of maltreatment are particularly relevant to the present model because they directly involve interpersonal safety, self-worth, and emotional responsiveness. In the study sample, emotional neglect had the highest mean among the CTQ-SF domains, followed by emotional abuse. This pattern is consistent with the manuscript's interpretation that emotional forms of adversity may be especially important in understanding later emotional-regulation difficulties and aggression.

Aggressive Behavior

Aggression can be understood as behavior or responding directed toward another person with the intention of causing harm. The BPAQ provides a multidimensional approach by

distinguishing physical aggression, verbal aggression, anger, and hostility. Physical aggression includes force or threats of force; verbal aggression includes arguing, threats, and hostile verbal expression; anger reflects emotional arousal and irritability; and hostility represents negative beliefs, resentment, suspicion, and hostile interpretations.

Aggression in young adulthood can occur across family, peer, romantic, educational, and online contexts. Its expression is shaped by social norms and cultural expectations. The thesis notes that norms concerning honor, masculinity, hierarchy, and acceptable emotional expression may influence the forms through which aggression is displayed in Khyber Pakhtunkhwa. Consequently, aggression scores should be interpreted within the cultural and social environment in which the behavior occurs.

Emotional Regulation Difficulties

Emotional regulation refers to the ability to understand, modulate, and express emotional responses in ways that support adaptive functioning. The framework underlying the DERS includes awareness, clarity, acceptance, impulse control, access to regulation strategies, and the ability to maintain goal-directed behavior during emotional activation. Difficulties in any of these areas can make intense emotions harder to manage.

Developmentally, emotion regulation begins through co-regulation in caregiver relationships. Responsive and emotionally available caregivers provide opportunities for children to learn how emotions can be identified, tolerated, and managed. In contrast, environments characterized by abuse, neglect, inconsistency, or emotional unavailability may interfere with this learning process. The resulting regulatory difficulties may become increasingly consequential as young people encounter complex interpersonal and academic demands.

Emotion dysregulation is also described in the thesis as a transdiagnostic process associated with several forms of psychological difficulty. In relation to aggression, the most relevant deficits may be difficulty controlling impulses when emotionally activated, difficulty accepting emotional states, and limited access to effective regulation strategies. These processes provide a plausible proximal route through which traumatic histories may become linked to aggressive behavior.

Childhood Trauma and Aggressive Behavior

A consistent theme in the reviewed literature is that childhood adversity is associated with later behavioral problems. From a Social Learning Theory perspective, children learn behavioral patterns through observation, modeling, reinforcement, and experience. When aggression is repeatedly observed or experienced in the family environment, a child may learn that aggression is an acceptable or effective way of responding to frustration, conflict, or perceived threat.

Longitudinal and developmental findings summarized in the thesis indicate that physical and emotional maltreatment can predict later aggression. Cumulative adversity may further increase risk, suggesting that multiple forms of maltreatment can have an additive or compounding effect. The present study extends this literature by examining whether

emotional-regulation difficulties help explain the association between trauma exposure and aggression in young adults.

Emotional Regulation as a Mediating Mechanism

The mediation model proposes that childhood trauma may be related to later aggression partly because adverse experiences interfere with the development of emotional regulation. In this model, trauma is the independent variable, emotional-regulation difficulties are the mediator, and aggressive behavior is the dependent variable. A direct trauma-to-aggression pathway is also retained because trauma may influence aggression through additional mechanisms such as learned behavioral scripts, cognitive schemas, threat sensitivity, and other developmental processes.

The thesis reports evidence from previous work suggesting that emotion dysregulation can account for a substantial portion of the relationship between maltreatment and externalizing behavior. The present study therefore tests a partial mediation model rather than assuming that emotional regulation completely explains the trauma-aggression association.

Theoretical Framework

Social Learning Theory, developed by Bandura, serves as the principal theoretical framework for the study. The theory proposes that behavior is acquired partly through observing and modeling others and is maintained when it is reinforced. Applied to childhood trauma, repeated exposure to aggression, threats, coercion, or emotionally harmful interactions can provide behavioral scripts that are later reproduced in other social situations. The theory also allows self-regulatory processes to be considered because individuals do not respond mechanically to environmental events; their emotional and cognitive processes influence how learned behavior is expressed.

The study also draws on Attachment Theory as a supporting framework. Early caregiving relationships contribute to internal working models about the self and other people. Traumatic, frightening, inconsistent, or emotionally unavailable caregiving may contribute to insecure or disorganized attachment patterns, heightened sensitivity to rejection or threat, and difficulty self-soothing during interpersonal conflict. These processes are conceptually compatible with the DERS-16 focus on emotion regulation and with the BPAQ dimensions of anger and hostility.

Conceptual Framework

The conceptual framework specifies childhood trauma as the independent variable, difficulties in emotional regulation as the mediating variable, and aggressive behavior as the dependent variable. The model proposes both a direct pathway from childhood trauma to aggressive behavior and an indirect/mediated pathway through difficulties in emotional regulation. In the mediated pathway, childhood trauma is expected to be associated with greater difficulties in emotional regulation, which in turn are expected to increase aggressive responses. The direct pathway is retained because trauma may also influence aggression through learned behavioral scripts and other developmental processes. This

framework is consistent with the study's Social Learning Theory and supporting Attachment Theory perspectives.

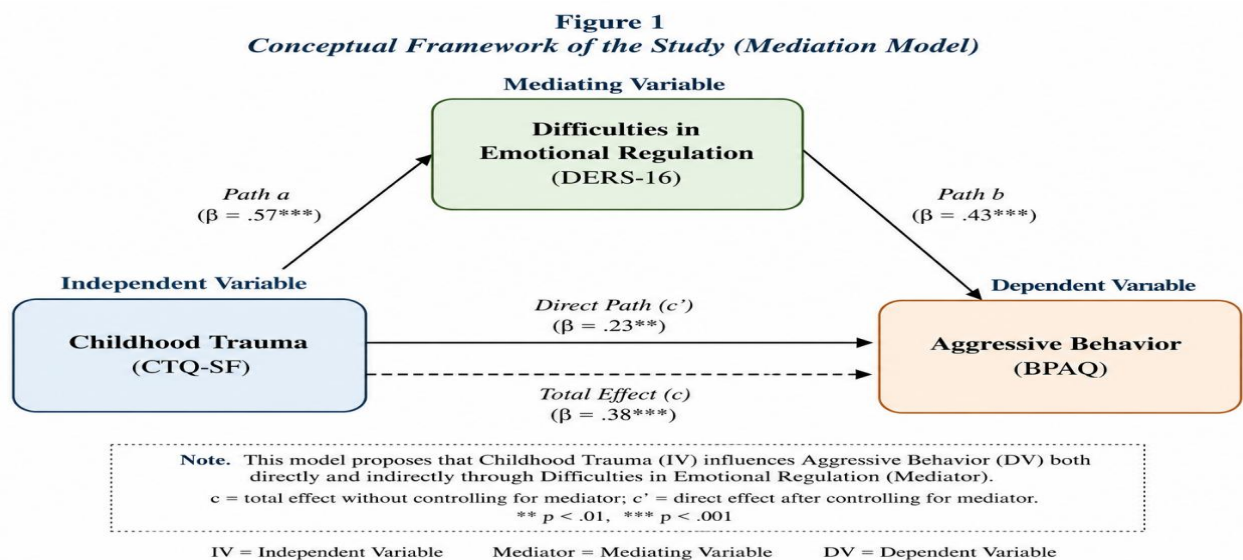


Figure 1. Conceptual Framework of the Study (Mediation Model)

3. Method

Research Design

A descriptive correlational, cross-sectional design was used. The design was appropriate because the study sought to determine the strength and direction of associations among childhood trauma, difficulties in emotional regulation, and aggressive behavior without experimentally manipulating the variables. The mediation model was examined statistically within the correlational framework. Because all variables were assessed at one point in time, the results are interpreted as associations and statistical mediation rather than proof of causal direction.

Research Approach

The study followed a deductive quantitative approach. Social Learning Theory and Attachment Theory informed the conceptual model and hypotheses, which were subsequently examined using standardized self-report measures and statistical analyses. The approach provided a structured way of testing whether the relationships anticipated by the theoretical framework were supported in the university sample.

Participants and Sampling

The participants were 150 undergraduate students of Iqra National University, Peshawar, aged 18–25 years, during the 2024–2025 academic year. Purposive sampling was used to obtain equal participation by gender, with 75 males and 75 females. Students were drawn from several academic areas, including Psychology, Education, Business Administration, Computer Science, and Social Sciences. Students with a reported psychotic disorder or who were unable to complete the questionnaire independently were excluded.



A total of 165 responses were received during data collection. Fifteen were removed because of missing information or failure to meet the eligibility criteria, resulting in the final sample of 150 participants. The sample was balanced by gender and represented different years of university study and residential circumstances.

Measures

Childhood Trauma Questionnaire–Short Form (CTQ-SF)

The CTQ-SF is a retrospective self-report measure of childhood maltreatment. The version described in the thesis contains 28 items covering emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect, with a minimization/denial component. Items are rated on a five-point response scale. Higher total scores indicate greater reported childhood trauma. The study used the total CTQ-SF score as its operational measure of childhood trauma.

Difficulties in Emotion Regulation Scale–Short Form (DERS-16)

The DERS-16 is a 16-item short form assessing difficulties in emotion regulation. The thesis describes domains including non-acceptance of emotional responses, difficulties engaging in goal-directed behavior, impulse-control difficulties, lack of emotional awareness, limited access to regulation strategies, and lack of emotional clarity. Items are rated on a five-point scale, and higher total scores indicate greater emotion-regulation difficulties.

Buss-Perry Aggression Questionnaire (BPAQ)

The BPAQ contains 29 items assessing four dimensions of aggression: physical aggression, verbal aggression, anger, and hostility. Responses are recorded on a five-point scale. Higher scores indicate greater aggressive tendencies. The total BPAQ score was used as the operational indicator of aggressive behavior in the present analysis.

Reliability

Instrument	Items	Original α	Present-study α
CTQ-SF	28	.79–.94	.83
DERS-16	16	.86	.84
BPAQ	29	.72–.89	.81

All three measures demonstrated satisfactory to good internal consistency in the present sample. The reliability coefficients reported in the thesis were .83 for the CTQ-SF, .84 for the DERS-16, and .81 for the BPAQ. These coefficients support the internal consistency of the total scores used for the present analyses.



Operational Definitions

Childhood trauma was operationalized as reported emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect occurring before 18 years of age and quantified by the CTQ-SF total score. Emotional regulation was operationalized as difficulties in regulating, modulating, and expressing emotions appropriately, assessed through the DERS-16 total score; higher scores represented greater dysregulation. Aggressive behavior was operationalized as a tendency toward physical or verbal aggression, anger, and hostile cognition, assessed through the BPAQ total score.

Procedure

Data were collected over four weeks through both direct administration and an online questionnaire. For in-person data collection, the researcher visited lecture halls and common areas after obtaining permission from relevant university administration. Participants received information about the study, informed consent material, demographic questions, and the three standardized measures. Completed paper questionnaires were collected on the same day.

For online data collection, the questionnaire was converted into a Google Form and distributed through student WhatsApp groups and departmental email channels. The order of the measures and consent information was kept consistent with the printed version. Email addresses were not collected in order to preserve anonymity. Participants generally required approximately 20–25 minutes to complete the questionnaire.

Ethical Considerations

Ethical approval was obtained from the Board of Advanced Studies and Research at Iqra National University, Peshawar. Participation was voluntary, and participants were informed that they could withdraw at any time without consequences. No identifying information was entered into the dataset. Because the CTQ-SF contains sensitive questions, participants were informed that they could omit the sexual-abuse section if completing it caused distress. Information about student counseling support was made available for participants who required assistance.

Data Analysis

Data were analyzed using IBM SPSS Statistics Version 27. Data screening included examination of missing values, outliers, and normality. Descriptive statistics included frequencies, percentages, means, standard deviations, and observed score ranges. Pearson product-moment correlations were used to examine bivariate associations. Regression analysis was used to assess prediction of aggressive behavior. Mediation was examined using the Baron and Kenny four-step procedure. Independent-samples t-tests were used to examine gender differences. The study used $p < .05$ as the statistical significance threshold.

4. Results

Participant Characteristics

Characteristic	Category	n	%
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Age	18–19 years	35	23.3
Age	20–21 years	48	32.0
Age	22–23 years	42	28.0
Age	24–25 years	25	16.7
Gender	Male	75	50.0
Gender	Female	75	50.0
Year	1st year	38	25.3
Year	2nd year	44	29.3
Year	3rd year	41	27.3
Year	4th year	27	18.0
Residence	Home	90	60.0
Residence	Hostel	37	24.7
Residence	Rented accommodation	23	15.3
Family income	Below PKR 30,000	45	30.0
Family income	PKR 30,000–60,000	68	45.3
Family income	Above PKR 60,000	37	24.7

The largest age group was 20–21 years (32.0%), followed by 22–23 years (28.0%), 18–19 years (23.3%), and 24–25 years (16.7%). The sample was equally divided between males and females. Most participants were in their second or third year of study, and 60% lived at home. The largest family-income category was PKR 30,000–60,000 per month.

Descriptive Statistics

Variable	Min	Max	M	SD
CTQ-SF total	28	134	74.32	18.46
Emotional abuse	5	25	14.62	5.11
Physical abuse	5	25	13.87	4.93
Sexual abuse	5	25	11.24	4.78
Emotional neglect	5	25	16.43	5.33
Physical neglect	5	25	12.95	4.62
DERS-16 total	16	79	48.17	11.23
Non-acceptance	3	15	9.14	2.87
Goal-directed behavior	3	15	8.92	2.74
Impulse control	3	15	9.33	2.91
Awareness	3	15	7.81	2.43

Strategies	4	20	12.48	3.26
Clarity	4	20	11.97	3.14
BPAQ total	29	138	82.64	19.37
Physical aggression	9	44	24.73	7.82
Verbal aggression	5	25	14.87	4.31
Anger	7	35	22.14	5.93
Hostility	8	40	21.46	6.18

The CTQ-SF total mean was 74.32 (SD = 18.46), indicating a moderate level of reported childhood trauma within the possible score range. Emotional neglect had the highest mean among the trauma domains (M = 16.43, SD = 5.33), whereas sexual abuse had the lowest mean (M = 11.24, SD = 4.78). The DERS-16 mean was 48.17 (SD = 11.23), with impulse-control difficulties and non-acceptance showing relatively higher mean scores. The BPAQ total mean was 82.64 (SD = 19.37), with physical aggression and anger contributing prominently to the total score.

Correlations

Variable	CTQ-SF	Emotional Abuse	Emotional Neglect	DERS-16	BPAQ
CTQ-SF	1.00	.72**	.68**	.57**	.52**
Emotional Abuse	.72**	1.00	.49**	.44**	.41**
Emotional Neglect	.68**	.49**	1.00	.51**	.46**
DERS-16	.57**	.44**	.51**	1.00	.61**
BPAQ	.52**	.41**	.46**	.61**	1.00

Note. ** p < .01 (2-tailed).

Childhood trauma was significantly and positively associated with aggressive behavior, $r(148) = .52$, $p < .001$, supporting H1. Difficulties in emotional regulation were also significantly and positively associated with aggression, $r(148) = .61$, $p < .001$, supporting H2. Childhood trauma was significantly associated with emotional-regulation difficulties, $r(148) = .57$, $p < .001$. The strongest bivariate association in the matrix was between DERS-16 and BPAQ scores.

Mediation Analysis

Path	B	SE	β	95% CI
CTQ-SF → BPAQ (c)	0.52	0.08	0.38	[0.37, 0.67]



CTQ-SF → DERS-16 (a)	0.35	0.05	0.57	[0.25, 0.45]
DERS-16 → BPAQ (b)	0.74	0.11	0.43	[0.52, 0.96]
CTQ-SF → BPAQ controlling DERS (c')	0.31	0.08	0.23	[0.15, 0.47]
Indirect effect (a × b)	0.21	0.05	—	[0.12, 0.32]

The mediation analysis indicated that childhood trauma significantly predicted aggressive behavior ($\beta = .38$), childhood trauma significantly predicted emotional-regulation difficulties ($\beta = .57$), and emotional-regulation difficulties significantly predicted aggression ($\beta = .43$). When emotional-regulation difficulties were statistically controlled, the direct effect of childhood trauma on aggression was reduced but remained significant ($\beta = .23$). The thesis reports an indirect effect of approximately 0.259 based on the product of the unstandardized a and b paths and estimates that approximately 40% of the total effect was mediated. The confidence interval reported for the indirect effect did not include zero, supporting H3 and indicating partial mediation.

Gender Differences

Variable	Male M ± SD	Female M ± SD	t	df	p
CTQ-SF	72.14 ± 17.83	76.50 ± 19.08	-1.42	148	0.158
DERS-16	47.31 ± 10.87	49.03 ± 11.58	-0.94	148	0.348
BPAQ	83.71 ± 18.92	81.57 ± 19.84	0.68	148	0.498

None of the gender comparisons reached statistical significance. Female participants had somewhat higher mean CTQ-SF and DERS-16 scores, while males had a somewhat higher mean BPAQ score; however, all p values were above .05. These results indicate that the three psychological constructs were broadly comparable across gender in this sample.

5. Discussion

The present study examined whether childhood trauma was associated with aggressive behavior among young adults and whether difficulties in emotional regulation statistically mediated this association. The findings supported all three hypotheses. Childhood trauma was positively associated with aggression, difficulties in emotional regulation were positively associated with aggression, and emotional-regulation difficulties partially mediated the relationship between trauma and aggression. Gender differences were not statistically significant.

Childhood Trauma and Aggressive Behavior

The positive association between childhood trauma and aggression ($r = .52$, $p < .001$) indicates that participants reporting greater childhood adversity also tended to report greater aggressive behavior. This finding is consistent with the developmental literature summarized in the thesis, including work linking physical and emotional maltreatment with later externalizing behavior. From a Social Learning Theory perspective, exposure to aggression or coercive interaction may provide behavioral models that become incorporated into later responses to frustration or interpersonal conflict.

The descriptive findings also provide a more specific perspective. Emotional neglect had the highest mean among the trauma domains, and emotional abuse and emotional neglect were meaningfully related to aggression. This pattern suggests that trauma should not be understood only in terms of overt physical violence. Experiences involving rejection, emotional unavailability, humiliation, or inadequate emotional support may also be relevant to later hostile or aggressive responding. Because these interpretations are based on self-report and a cross-sectional design, they should be treated as associations rather than evidence that one particular trauma type causes aggression.

Emotional-Regulation Difficulties and Aggression

Difficulties in emotional regulation showed the strongest bivariate relationship with aggression ($r = .61$, $p < .001$) and a standardized mediation-path coefficient of $\beta = .43$ for the relationship between DERS-16 and BPAQ. This finding is theoretically meaningful because aggression often occurs during periods of high emotional activation. Individuals who have difficulty accepting distress, controlling impulses, maintaining goal-directed behavior, or accessing regulation strategies may have fewer adaptive options when confronted with provocation.

The relatively high mean scores for impulse control and non-acceptance in the current sample reinforce this interpretation. If a person experiences an intense emotional state but has difficulty accepting the emotion or inhibiting impulsive action, aggressive responses may become more readily available. This does not mean that emotional dysregulation inevitably produces aggression; rather, the findings indicate that the two constructs are substantially related within this sample.

Mediating Role of Emotional Regulation

The central contribution of the study is the evidence for partial mediation. Childhood trauma predicted greater difficulties in emotional regulation, and these difficulties were associated with higher aggression. Once the mediator was included, the direct trauma-aggression association decreased but remained significant. The thesis estimates that approximately 40% of the total relationship was explained by the indirect pathway. Thus, emotional regulation appears to be one mechanism among several through which early adversity may be associated with later aggressive behavior.

The partial nature of the mediation is important. It indicates that emotional regulation does not fully account for the trauma-aggression relationship. Other mechanisms may include learned aggressive scripts, hostile attributional patterns, cognitive schemas concerning safety and trust, social modeling, stress reactivity, and other developmental processes. This interpretation is compatible with the study's Social Learning and Attachment frameworks. The findings should not be interpreted as demonstrating a causal chain because the cross-sectional design does not establish temporal ordering statistically.

Interpretation Through Social Learning Theory

Social Learning Theory provides a useful account of how adverse childhood environments can influence later aggression. A child who repeatedly observes aggression being used to obtain compliance, terminate conflict, or express anger may learn that aggression is effective. Repeated exposure may normalize aggressive responses and create behavioral scripts that are later activated in situations involving frustration or perceived threat. Emotional regulation can influence whether these learned scripts are enacted, because the ability to pause, tolerate distress, and select alternative responses may reduce the likelihood of aggressive behavior.

Interpretation Through Attachment Theory

Attachment Theory provides a complementary explanation. Early caregiving experiences contribute to internal working models concerning whether other people are trustworthy, whether the self is worthy of care, and whether interpersonal conflict is manageable. Traumatic or inconsistent caregiving may contribute to heightened sensitivity to rejection and threat and to difficulty regulating emotional responses during close relationships. In young adulthood, these patterns may become relevant in friendships, romantic relationships, peer interactions, and other social contexts. The current findings are therefore compatible with an attachment-based account in which trauma-related interpersonal expectations and emotion-regulation difficulties jointly increase vulnerability to aggressive responding.

Gender Findings

The absence of statistically significant gender differences suggests that, within this balanced university sample, males and females reported broadly similar levels of childhood trauma, emotion-regulation difficulties, and aggression. Although females reported somewhat higher trauma and dysregulation scores and males somewhat higher aggression scores, the differences were small and nonsignificant. This finding cautions against

assuming that trauma-related emotional and behavioral difficulties are restricted to one gender. The thesis nevertheless recommends that future work investigate gender as a potential moderator, especially because cultural expectations can influence how emotions and aggression are expressed.

Contextual and Socioeconomic Considerations

Thirty percent of participants reported family income below PKR 30,000 per month, and the largest group fell within the PKR 30,000–60,000 range. The thesis suggests that socioeconomic conditions may influence exposure to stressors and access to protective resources. However, socioeconomic status was not formally tested as a moderator in the present analysis. Consequently, it is more appropriate to regard the observed income distribution as contextual information rather than evidence that income caused or moderated the trauma-aggression relationship.

Overall Interpretation

Taken together, the findings indicate that childhood trauma and emotional-regulation difficulties are important correlates of aggressive behavior in this sample of university students. Emotional regulation appears to be particularly proximal to aggression and statistically explains part of the relationship between trauma and aggression. These findings support a trauma-informed perspective in which aggressive behavior is considered in relation to developmental history and emotion-regulation capacity rather than interpreted solely as a disciplinary or character problem.

6. Implications

Theoretical Implications

The findings provide support for applying Social Learning Theory and Attachment Theory to the study of trauma-related aggression in a Pakistani university context. The partial mediation result also suggests that a single-pathway model is insufficient. Future theoretical models should consider multiple mechanisms, including emotional regulation, cognitive appraisal, social learning, interpersonal expectations, and broader contextual factors.

Clinical and Counseling Implications

University counseling services may benefit from incorporating trauma-informed screening and emotional-regulation assessment when students present with persistent anger, interpersonal conflict, or aggressive behavior. The findings suggest that interventions aimed at improving emotion-regulation skills may be particularly relevant. Skills-based approaches can target impulse control, emotional awareness, acceptance of emotional experiences, and access to adaptive coping strategies. Such services should be provided in a manner that avoids labeling or stigmatizing students.

Educational and Institutional Implications

Universities may consider strengthening student wellness programs through psychoeducation, emotion-regulation skills groups, and referral pathways between disciplinary and counseling services. When aggression occurs, a trauma-informed

institutional response can recognize that behavior may coexist with unresolved emotional difficulties. This does not eliminate responsibility for harmful conduct, but it may support a more comprehensive response that combines appropriate accountability with access to psychological support.

Community and Policy Implications

The thesis recommends broader awareness regarding the long-term effects of childhood trauma among parents, educators, and communities. At the policy level, emotional-regulation education could be introduced earlier in schooling so that children develop skills for recognizing and managing emotional responses before maladaptive patterns become established. These recommendations are especially relevant in settings where access to specialized mental health services is limited.

7. Limitations

- The cross-sectional design limits causal interpretation. Although the conceptual model places childhood trauma before emotion-regulation difficulties and aggression in developmental time, the statistical design cannot establish the temporal sequence.
- All major variables were assessed through self-report. Retrospective reporting of childhood trauma may be influenced by memory, current mood, social desirability, or reluctance to disclose stigmatized experiences.
- The sample was drawn from a single university in Peshawar and consisted of undergraduate students aged 18–25 years. Findings therefore should not be generalized automatically to rural youth, out-of-school young adults, working populations, clinical populations, or other regions of Pakistan.
- The mediation analysis relied on the Baron and Kenny procedure. The thesis itself notes that contemporary approaches such as bootstrapped indirect-effect estimation and PROCESS-based analysis can provide more robust inference.
- The study used a purposive rather than probability sampling strategy. Although gender representation was balanced, the sample may not represent the broader university or young-adult population.

8. Future Research Suggestions

- Longitudinal studies should follow young people over time to clarify the temporal relationship among childhood trauma, the development of emotion regulation, and later aggression.
- Future studies should examine additional mediators such as cognitive appraisal, hostile attribution bias, coping, social support, and interpersonal schemas.
- Potential moderators such as gender, socioeconomic status, family environment, and culturally relevant coping should be tested statistically rather than discussed only descriptively.

- Research should extend beyond university students to include rural populations, working young adults, out-of-school youth, and clinical or justice-involved populations.
- Future intervention studies should evaluate whether emotion-regulation training reduces aggression among trauma-exposed young people and whether such effects are enhanced when combined with trauma-focused treatment.
- Online and social-media environments should be considered as both contexts in which aggression may be expressed and possible platforms for delivering psychoeducation and emotion-regulation interventions.

9. Conclusion

This manuscript examined the relationship between childhood trauma and aggressive behavior among young adults, with particular attention to difficulties in emotional regulation as a mediating mechanism. The findings showed significant positive associations between childhood trauma, emotional-regulation difficulties, and aggressive behavior. Emotional-regulation difficulties statistically partially mediated the relationship between childhood trauma and aggression, accounting for approximately 40% of the total association reported in the thesis. Gender differences were not statistically significant.

The results support a developmental and trauma-informed understanding of aggression. Early adverse experiences may be linked with later aggression through learned behavioral patterns and disruptions in emotional regulation, while the partial mediation result indicates that additional pathways are likely involved. Within university settings, the findings support the value of counseling and prevention programs that address emotional regulation alongside students' broader developmental and psychosocial histories.

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