



## The Mediating Role of Emotional Regulation in the Relationship between Childhood Trauma and Borderline Personality Features in Young Adults

Ali Yazdany<sup>1\*</sup>, Shahram Vahedi<sup>2</sup>

<sup>1</sup>PhD Candidate in Psychology, Faculty of Psychology and Education, University of Tehran, Tehran, Iran

<sup>2</sup>PhD Faculty Member, Department of Psychology, University of Tabriz, Tabriz, Iran

### Article info

Received: 27.08.2026

Accepted: 07.10.2026

Available Online: 10.10.2026

Checked for Plagiarism: Yes

### Keywords:

childhood trauma; childhood maltreatment; emotion regulation; emotion dysregulation; borderline personality features

### ABSTRACT

Childhood trauma is a robust developmental risk factor for later personality pathology, yet exposure does not translate deterministically into borderline personality features. The present article examines emotion regulation as a theoretically central mechanism that may explain part of this heterogeneity in young adulthood. Drawing on peer-reviewed evidence published primarily between 2024 and 2026, the paper integrates developmental psychopathology, biosocial, trauma-informed, attachment, and contemporary transdiagnostic perspectives. Recent longitudinal and cross-sectional studies converge in showing that childhood maltreatment is associated with greater emotion regulation difficulties and that dysregulation is strongly related to borderline symptoms and related functional impairment. Importantly, recent mediation work in young adults indicates that emotion regulation difficulties can carry part of the statistical association between childhood maltreatment and borderline personality symptoms, while other studies show that adaptive strategies such as cognitive reappraisal may attenuate symptom severity among trauma-exposed young adults. The article develops a testable mediation model in which childhood trauma predicts borderline personality features both directly and indirectly through emotion regulation difficulties. A rigorous empirical protocol is proposed for young adults aged 18-29 years using validated self-report measures, bootstrapped indirect-effect estimation, sensitivity analyses, and transparent reporting of trauma subtypes and relevant covariates. Methodological issues including retrospective trauma assessment, cross-sectional mediation, common-method variance, sex and gender imbalance, comorbidity, and the distinction between emotion regulation and emotion dysregulation are considered in detail. The synthesis supports emotion regulation as a clinically meaningful, modifiable process, while cautioning against causal claims when temporal ordering has not been established. Future longitudinal and multimethod studies should test whether emotion regulation prospectively mediates the pathway from specific and cumulative childhood trauma exposure to emerging borderline features during the transition to adulthood.

### Introduction

Borderline personality pathology characterized by marked instability in affect, self-experience, interpersonal relationships, and behavioral control. During adolescence and young adulthood, these features can interfere with identity development, educational continuity, employment, close

relationships, and the acquisition of stable adult roles.

Contemporary clinical literature increasingly treats borderline pathology dimensionally, recognizing that clinically meaningful borderline personality features can occur below the threshold for a categorical diagnosis and may fluctuate during

\*Corresponding Author: **Ali yazdany** ([aliyazdany1377@gmail.com](mailto:aliyazdany1377@gmail.com))

2 Email: [vahedi117@yahoo.com](mailto:vahedi117@yahoo.com)

developmental transitions. This dimensional perspective is particularly relevant in young adults because the transition from adolescence to adulthood is a period of heightened affective reactivity, shifting social demands, and ongoing maturation of self-regulatory capacities. Recent reviews emphasize that early identification of borderline features is clinically important and that symptoms in younger populations should not be dismissed as merely transient developmental turbulence (Kaess & Cavelti, 2025; Ellappan et al., 2025).

Childhood trauma is among the most consistently studied environmental correlates of borderline pathology. The term includes acts of commission, such as emotional, physical, and sexual abuse, as well as acts of omission, including emotional and physical neglect. Broader adverse childhood experience frameworks also encompass household dysfunction, exposure to violence, bullying, instability, and other chronic developmental stressors. Recent network and multivariate studies indicate that no single adversity explains borderline pathology in isolation; rather, cumulative burden, co-occurring forms of maltreatment, and trauma-related developmental consequences appear to be central (Vonderlin et al., 2026; Alhammad et al., 2025). This matters because a simple trauma-to-symptom model risks overstating determinism. Many trauma-exposed individuals do not develop borderline features, and many people with borderline pathology have heterogeneous developmental histories.

The question is therefore not only whether childhood trauma is associated with borderline personality features, but how that association is transmitted across development. Emotion regulation is one of the most plausible candidate mechanisms. Emotion regulation refers to processes by which individuals influence which emotions they experience, when they experience them, and how those emotions are understood, expressed, tolerated, and modulated. Emotion dysregulation describes persistent difficulty in these processes, including poor emotional clarity, nonacceptance of emotional responses, limited access to effective strategies, difficulty maintaining goal-directed behavior under distress, and problems controlling impulses when emotionally activated. Recent measurement research supports the psychometric usefulness of multidimensional emotion-regulation instruments in young adult samples (González-Roz et al., 2024).

The developmental logic connecting trauma, emotion dysregulation, and borderline features is compelling. Repeated exposure to threat, inconsistency, neglect, or invalidation can interfere with learning that emotions are understandable, tolerable, and socially manageable. A child may instead learn to suppress, avoid, amplify, or rapidly discharge emotional states. When these patterns

become entrenched, heightened emotional sensitivity can combine with limited regulatory resources, contributing to interpersonal volatility, impulsive reactions, self-defeating coping, unstable self-appraisal, and intense responses to perceived rejection. Recent studies of childhood maltreatment show alterations in both intrapersonal and interpersonal emotion regulation, including differences that extend into daily-life affective functioning (Niedtfeld et al., 2025).

The proposed mediational account does not imply that emotion dysregulation is the sole mechanism linking trauma to borderline pathology. Attachment insecurity, mentalizing difficulties, dissociation, epistemic mistrust, impulsivity, social-cognitive impairments, genetic liability, and ongoing environmental stress may operate in parallel or in sequence. Indeed, recent research has identified mentalization (Chung et al., 2026), insecure attachment (Costanzo et al., 2026), epistemic mistrust (Li et al., 2026), and impulsivity (Morillas et al., 2026) as additional mechanisms. The value of examining emotion regulation is that it is both theoretically central and clinically modifiable. It therefore provides a bridge between developmental explanation and intervention.

This article has two complementary aims. First, it synthesizes recent evidence from 2024-2026 on the associations among childhood trauma, emotion regulation, and borderline personality features, with emphasis on young adulthood. Second, it translates that literature into a rigorous empirical mediation framework that can be implemented in a cross-sectional or, preferably, longitudinal study. Because no original dataset was supplied for the present manuscript, statistical findings are not fabricated. Instead, the Methods section specifies a complete research protocol and the Results section is replaced by an evidence-based analytic and interpretation framework describing what should be reported once real data are available.

### **Conceptual and Theoretical Background Borderline Personality Features in Young Adulthood:**

Young adulthood, often operationalized as approximately 18 to 29 years, is a developmentally informative period for studying borderline personality features. Individuals are expected to consolidate identity, increase autonomy, form durable intimate relationships, and sustain education or work roles while managing greater independence from family systems. These tasks place substantial demands on emotional self-regulation and interpersonal functioning. Borderline features can become especially visible when intense emotions, fears of rejection, rapidly shifting self-appraisals, or impulsive coping repeatedly disrupt these developmental tasks.

Contemporary work has moved away from the assumption that borderline pathology only meaningfully studied in fully established adult disorder. Early-detection research argues that clinically significant borderline features can be recognized in adolescence and emerging adulthood and that early intervention may reduce chronic functional impairment (Kaess & Cavelti, 2025). This approach aligns with dimensional models of personality pathology in which severity and trait expression distributed continuously rather than appearing only after an arbitrary diagnostic threshold is crossed. For research on young adults, a dimensional outcome is therefore advantageous because it captures subthreshold variation and reduces loss of information associated with binary diagnostic classification.

A dimensional focus is also methodologically useful for mediation analysis. Statistical mediation requires meaningful variability in the outcome, and a continuous borderline-feature score can detect associations across a wider range of functioning than a dichotomous diagnosis. Nevertheless, dimensional assessment not confused with diagnosis. Elevated questionnaire scores indicate greater borderline features or risk-related characteristics; they do not independently establish a clinical disorder.

#### **Childhood Trauma as a Developmental Risk Context:**

Childhood trauma understood as a developmental context that repeatedly challenges the maturation of threat detection, attachment expectations, self-concept, and regulatory learning. Emotional abuse may communicate that the child's internal states are unacceptable or dangerous. Emotional neglect may deprive the child of co-regulation and language for affect. Physical abuse may condition heightened vigilance to interpersonal threat, whereas sexual abuse may disrupt bodily autonomy, trust, and self-boundaries. Physical neglect can create chronic insecurity and unpredictability. These experiences frequently co-occur, making cumulative and pattern-based models more realistic than single-trauma explanations.

Recent evidence reinforces this complexity. Vonderlin et al. (2026) used network analysis across clinical and non-clinical groups to examine different adverse experiences in relation to borderline pathology, highlighting the importance of looking beyond a single conventional trauma category. In a general-population study, childhood trauma especially emotional abuse was associated with more severe personality-disorder traits, including borderline traits (2025 cross-sectional evidence). A 2025 narrative review similarly emphasized that neglect and other less visible forms of maltreatment warrant greater attention in developmental models of BPD (Alhammad et al., 2025).

It is important to frame childhood trauma as a probabilistic rather than deterministic risk factor. Developmental outcomes depend on timing, severity, chronicity, perpetrator relationship, cumulative exposure, protective relationships, temperament, later stress, treatment access, and broader social context. Any scientific model should therefore avoid implying that childhood trauma inevitably produces borderline personality pathology. The mediational perspective is valuable precisely because it seeks to explain heterogeneity in outcomes rather than assuming a direct one-to-one mapping.

#### **Emotion Regulation and Emotion Dysregulation:**

Emotion regulation is not a single skill. It includes awareness of emotional states, clarity about what is being felt, and acceptance of emotion, capacity to remain goal-directed under distress, inhibitory control, flexible selection of regulatory strategies, and the ability to modify emotional responses without excessive avoidance or escalation. Difficulties can occur at any of these points. For example, a person may recognize distress but respond with non-acceptance, or may understand the emotion yet lack strategies that are effective in the relevant social context.

Recent evidence indicates that childhood maltreatment is associated with altered emotion-regulation patterns in both laboratory and daily-life contexts. Niedtfeld et al. (2025) found that individuals with childhood maltreatment histories showed differences in intra- and interpersonal regulation and that these regulatory processes related to daily-life mood. This type of evidence is important because it moves beyond global retrospective symptom reports and points toward mechanisms operating in ordinary emotional situations.

In borderline pathology, emotion dysregulation has a particularly strong theoretical status. Clinical descriptions consistently identify affective instability and difficulty recovering from emotional activation as central. Recent research on adults with BPD and ADHD further demonstrates that emotion dysregulation and impulsivity are overlapping yet distinguishable dimensions linked to childhood traumatization and impaired personality functioning (Kenézli et al., 2025).

A 2026 study of BPD outpatients also found that childhood trauma related to functional impairment partly through emotion dysregulation and impulsivity, while substantial direct association remained unexplained (Morillas et al., 2026). This pattern supports a multi-mechanism model rather than a single-pathway account.

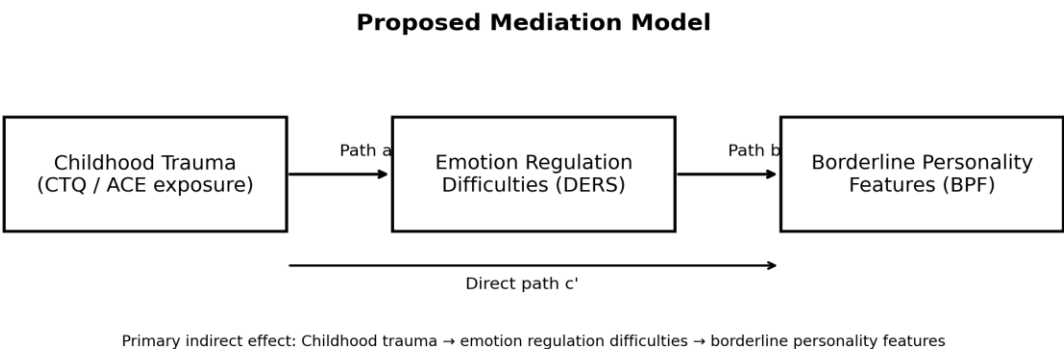
**Why Mediation Is Theoretically Plausible:**

A mediator is a variable that statistically represents an intervening process through which an exposure is associated with an outcome. In the proposed model, childhood trauma is the predictor (X), emotion regulation difficulties are the mediator (M), and borderline personality features are the outcome (Y). The model tests whether greater trauma exposure is associated with greater emotion-regulation difficulty (path a), whether emotion-regulation difficulty is associated with borderline features after accounting for trauma (path b), and whether the product of these paths constitutes a nonzero indirect effect. The direct effect (c') represents the association between trauma and borderline features that remains after the mediator is included.

Recent literature provides unusually direct support for this model. Turner and Chapman (2025) followed young adults over 12 months and reported that emotion regulation difficulties mediated the association of childhood maltreatment with both nonsuicidal self-injury and BPD symptoms. Thornton et al. (2025) conducted a systematic

review and mediation analysis focused on adverse childhood experiences, emotion dysregulation, and personality-disorder traits; nearly all reviewed studies involving childhood abuse and BPD supported either mediation or a meaningful association involving emotion dysregulation. Together, these findings suggest that the proposed mediation model not merely speculative but anchored in a growing empirical literature. At the same time, mediation not automatically interpreted causally. A statistically significant indirect effect in cross-sectional data can arise even when temporal order is uncertain. Borderline symptoms may themselves worsen regulatory functioning or shape retrospective appraisal of childhood experiences. Longitudinal designs with repeated measures of emotion regulation and borderline features provide stronger tests of temporal precedence. Thus, the proposed model best understood as a developmental hypothesis that tested at different levels of causal rigor.

**Figure 1.** Proposed mediation model



**Note:** Path a represents the association of childhood trauma with emotion regulation difficulties. Path b represents the association of emotion regulation difficulties with borderline personality features controlling for childhood trauma. Path c' is the direct effect of childhood trauma on borderline features after inclusion of the mediator. The indirect effect is  $a \times b$ .

**Recent Empirical Evidence (2024-2026)**

**Trauma and Borderline Personality Features:**

Evidence published in the last three years continues to support a robust association between adverse developmental experiences and borderline pathology, but also highlights heterogeneity across trauma types and mechanisms. Woolgar et al. (2024) examined young adults aged 18–25 with adverse childhood experiences and found that emotion-regulation strategies were relevant to the association between ACE exposure and borderline symptoms. Their work is especially pertinent because it targeted

the same developmental period emphasized in the proposed study and distinguished adaptive reappraisal from expressive suppression. More recent studies have extended the focus beyond conventional abuse categories. Vonderlin et al. (2026) analyzed multiple forms of adverse childhood experience across clinical and non-clinical populations, while Costanzo et al. (2026) examined emotional and physical maltreatment in relation to adolescent borderline features through attachment processes. Li et al. (2026) studied childhood trauma and borderline personality features in young adults through the lens of epistemic mistrust, demonstrating that trauma-related pathways can be tested with behavioral as well as self-report methods. These studies collectively support a developmental framework in which trauma exposure influences later borderline features through multiple intermediate processes. The emerging literature also emphasizes cumulative exposure. In real-world developmental histories,

emotional abuse, neglect, physical violence, household dysfunction, and peer victimization frequently cluster. Statistical attempts to isolate a single 'causal' subtype can therefore produce unstable estimates due to overlap among predictors. For the proposed study, primary analyses should examine total trauma burden, with subtype analyses treated as secondary and interpreted cautiously.

### **Trauma and Emotion Regulation:**

The association between childhood maltreatment and later emotion dysregulation is supported across clinical and non-clinical work. Niedtfeld et al. (2025) found that maltreatment was linked to altered intra- and interpersonal regulation and to mood dynamics in daily life. Kenézlői et al. (2025) reported associations among childhood traumatization, emotion dysregulation, impulsivity, and personality functioning in young adults with BPD or adult ADHD. These findings suggest that regulatory difficulties are not merely a by-product of diagnostic labeling but are linked to developmental adversity across different clinical contexts.

Mechanistically, trauma may compromise regulation through several routes: sensitization to threat, reduced trust in caregivers, limited opportunities for co-regulation, reinforcement of avoidance, poor emotional labeling, and increased use of rapid relief behaviors. Emotional neglect may be particularly relevant because the absence of responsive caregiving can impair acquisition of regulatory strategies even when overt abuse is absent. This is consistent with newer literature emphasizing neglect and cumulative adversity rather than focusing solely on severe acts of abuse.

The distinction between intrapersonal and interpersonal regulation is increasingly important. Young adults often regulate emotion within relationships by seeking reassurance, withdrawing, escalating conflict, testing closeness, or relying on others to modulate distress. Because borderline personality features are deeply interpersonal, a purely intrapersonal model may omit part of the mechanism. Future work should therefore consider whether interpersonal regulation explains additional variance beyond global DERS scores.

### **Emotion Regulation and Borderline Personality Features:**

Emotion regulation difficulties are consistently associated with borderline symptom severity. Contemporary clinical reviews continue to identify emotion dysregulation as a core organizing feature of BPD and as a major therapeutic target (Ellappan et al., 2025). The association is multidimensional: poor emotional clarity may contribute to unstable self-appraisal; nonacceptance can intensify secondary shame and anger; limited strategies may increase dependence on avoidance or crisis

behaviors; and impulse-control problems under distress can contribute to self-damaging actions.

Recent young-adult evidence is particularly informative. Turner and Chapman (2025) showed longitudinal associations among childhood maltreatment, emotion regulation difficulties, and BPD symptoms. Woolgar et al. (2024) showed that cognitive reappraisal may have a buffering role among young adults with ACE histories. These findings suggest that both general dysregulation and specific regulatory strategies matter. A mediation study can therefore use a global dysregulation score as the primary mediator while examining subdimensions or specific strategies in secondary analyses.

A clinically meaningful interpretation should avoid reducing BPD to emotion dysregulation alone. Borderline features also involve identity disturbance, interpersonal hypersensitivity, chronic emptiness, self-harm risk, anger, dissociation, and unstable patterns of attachment. Emotion regulation may explain a substantial component of the trauma–BPD association without accounting for all of it. This expectation is consistent with recent mediation studies in which significant indirect effects coexist with residual direct effects (Morillas et al., 2026).

### **Convergent Evidence for Mediation:**

The strongest recent support for the focal hypothesis comes from studies that explicitly test indirect pathways. Turner and Chapman (2025) used repeated assessments over 12 months in young adults and found that emotion regulation difficulties mediated the link between childhood maltreatment and BPD symptoms. This temporal structure is stronger than a single-wave design because mediator and outcome processes are observed repeatedly, although observational data still cannot establish causality with certainty.

Thornton et al. (2025) synthesized 14 studies that jointly modeled adverse childhood experiences or childhood abuse, emotion dysregulation, and personality-disorder variables. Their review found that the available literature was heavily concentrated on BPD and that emotion dysregulation was repeatedly implicated as a mediator or associated mechanism. The authors also noted an important conceptual distinction: effects were more consistent when childhood abuse was modeled than when broad ACE totals were used. This raises a measurement issue for future studies broad adversity counts may combine experiences with very different emotional-developmental implications.

The literature also points toward parallel mediators. Chung et al. (2026) reported mentalization as a mediator of early life stress effects in a clinical BPD sample. Li et al. (2026) found evidence linking childhood trauma, epistemic mistrust, and borderline features in young adults. Costanzo et al. (2026) showed that attachment processes can

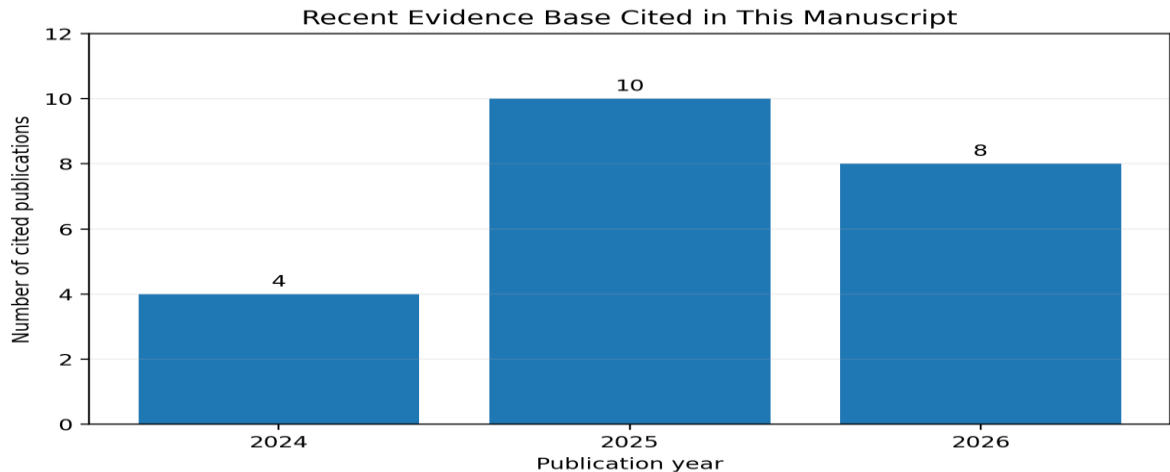
mediate maltreatment-borderline associations. These studies do not weaken the emotion-regulation hypothesis; instead, they suggest that emotional

regulation is one node in a broader network of social-cognitive and relational mechanisms.

**Table 1.** Selected recent studies informing the proposed mediation model

| Study               | Sample/design                                                                 | Key variables                                                             | Main relevance                                                              | Year |
|---------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|------|
| Woolgar et al.      | Young adults, 18-25; community cross-sectional                                | ACEs, reappraisal, suppression, BPD symptoms                              | Shows regulation strategies shape ACE-BPD symptom associations              | 2024 |
| González-Roz et al. | Young adults; psychometric study                                              | DERS-28                                                                   | Supports contemporary measurement of multidimensional emotion dysregulation | 2024 |
| Turner & Chapman    | Young adults; repeated assessments over 12 months                             | Childhood maltreatment, emotion regulation difficulty, BPD symptoms, NSSI | Direct longitudinal support for mediation by emotion regulation difficulty  | 2025 |
| Niedtfeld et al.    | Adults with and without maltreatment; cross-sectional + daily-life assessment | Childhood maltreatment, intra/interpersonal regulation, mood              | Links maltreatment to regulatory processes in daily life                    | 2025 |
| Kenézliői et al.    | Young adults with BPD, ADHD, and controls                                     | Trauma, dysregulation, impulsivity, personality functioning               | Supports links among trauma, dysregulation, and personality dysfunction     | 2025 |
| Thornton et al.     | Systematic review + mediation analysis                                        | ACEs/abuse, dysregulation, personality-disorder traits                    | Convergent evidence that dysregulation mediates abuse-PD links              | 2025 |
| Li et al.           | Two studies, ages 18–25                                                       | Trauma, epistemic mistrust, BPF                                           | Demonstrates a complementary behavioral mediation pathway                   | 2026 |
| Costanzo et al.     | 609 adolescents                                                               | Emotional/physical maltreatment, attachment, BPF                          | Shows attachment as parallel mediator/moderator                             | 2026 |
| Vonderlin et al.    | Clinical + non-clinical samples; network analysis                             | Multiple ACEs and BPD variables                                           | Highlights cumulative and heterogeneous adversity pathways                  | 2026 |
| Morillas et al.     | 203 BPD outpatients                                                           | CTQ, DERS, impulsivity, functioning                                       | Shows partial mediation involving dysregulation and impulsivity             | 2026 |

**Figure 2.** Distribution of recent evidence cited in this manuscript by publication year



**Note:** Counts represent the curated recent peer-reviewed publications cited in this manuscript, not a systematic-review flow count or estimate of the total literature.

**Proposed Research Model and Hypotheses**

The primary research question is: Does emotion regulation statistically mediate the relationship between childhood trauma and borderline personality features in young adults? The model is intentionally parsimonious. Childhood trauma is conceptualized as the developmental exposure, emotion regulation difficulty as a proximal psychological mechanism, and borderline personality features as the outcome. The primary model uses total trauma severity and total emotion-dysregulation severity. Secondary models examine trauma subtypes and regulation subdomains, while sensitivity analyses address covariates and alternative explanations.

- ✓ H1: Greater childhood trauma severity will be positively associated with greater borderline personality features in young adults (total effect, path c).
- ✓ H2: Greater childhood trauma severity will be positively associated with greater emotion regulation difficulties (path a).
- ✓ H3: Greater emotion regulation difficulties will be positively associated with borderline personality features after adjustment for childhood trauma (path b).
- ✓ H4: Emotion regulation difficulties will significantly mediate the association between childhood trauma and borderline personality features, indicated by a bootstrapped indirect effect ( $a \times b$ ) whose 95% confidence interval excludes zero.
- ✓ H5: The direct childhood-trauma effect ( $c'$ ) will be attenuated after inclusion of emotion regulation difficulties, consistent with partial mediation rather than assuming complete mediation.

- ✓ H6 (secondary): Emotional abuse and emotional neglect will show comparatively strong associations with emotion dysregulation and borderline features, but subtype differences will be interpreted cautiously because trauma types co-occur.

**Proposed Method**

**Study Design:**

A cross-sectional mediation study can provide an efficient initial test, but a prospective longitudinal design is preferable. For a cross-sectional implementation, childhood trauma is assessed retrospectively, while current emotion regulation and borderline features are assessed at the same session. The resulting indirect mediation pattern should be described as a statistical mediation pattern rather than proof of a causal developmental mechanism. For a stronger design, emotion regulation should be measured at baseline and borderline features at one or more later waves, with baseline borderline features controlled.

A multi-wave design could use three assessments separated by approximately three to six months: Time 1 for trauma history and covariates, Time 2 for emotion regulation, and Time 3 for borderline personality features. Such separation improves temporal ordering and allows autoregressive controls. If resources permit, ecological momentary assessment can complement questionnaires by measuring regulation in daily life, following the direction of recent work on maltreatment and everyday mood regulation (Niedtfeld et al.,2025).

**Participants and Sampling:**

The target population should be young adults aged 18-29 years. Recruitment can occur through universities, community advertisements, outpatient psychological services, and online platforms. To avoid spectrum restriction, a mixed community and help-seeking sample is advantageous when the outcome is dimensional borderline personality

features. A purely clinical BPD sample would be useful for symptom-severity analyses but would reduce variability at the lower end of the construct. Eligibility criteria should include age within the prespecified range, sufficient language proficiency to complete study measures, and capacity to provide informed consent. Exclusion criteria should be minimal and justified, because excessive psychiatric exclusions can reduce generalizability. If participants with current psychosis, mania, severe cognitive impairment, or acute intoxication cannot reliably consent or complete measures, temporary exclusion may be appropriate. Current treatment status and major comorbid conditions measured rather than automatically excluded whenever feasible.

Sample size should be determined by an a priori power analysis for the indirect effect rather than by rules of thumb. Because indirect effects are products of two coefficients and often have asymmetric sampling distributions, bootstrap-based planning or Monte Carlo simulation is preferable. For a moderate expected a and b path, a sample in the low-to-mid hundreds is typically more defensible than a small convenience sample, especially when covariates, trauma subtypes, missing data, and sensitivity analyses are planned. A target of approximately 300-400 participants would provide a practical balance between precision and feasibility for a single-mediator model, though the final number should be justified using expected effect sizes from the recent literature.

Measures

Childhood trauma. A validated trauma questionnaire should measure emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect, along with a total severity index. The Childhood Trauma Questionnaire family is widely used in recent studies of BPD mechanisms, including 2026 mediation work (Morillas et

al.,2026). If a broader ACE instrument is used, abuse/neglect dimensions should be preserved rather than relying only on an undifferentiated adversity count, because recent evidence suggests that broad ACE composites may obscure mechanism-specific associations (Thornton et al.,2025).

Emotion regulation. The Difficulties in Emotion Regulation Scale (DERS) or a psychometrically supported short form is well suited to the proposed model because it yields both a total score and theoretically meaningful subdomains. Recent validation work in young adults supports the continued use of multidimensional DERS variants (González-Roz et al.,2024). The primary analysis should use a preregistered total score to limit researcher degrees of freedom; subscale analyses can be secondary.

Borderline personality features. A validated dimensional measure appropriate for community young adults selected, such as a brief borderline-feature questionnaire or a broader personality instrument with a validated borderline scale. The measure described as assessing features or symptom severity, not as establishing diagnosis unless a structured clinical interview also administered. Li et al. (2026), for example, used a dimensional borderline scale in young adults aged 18-25, illustrating the feasibility of this approach.

Covariates. A minimal, theory-driven covariate set is preferred. Age and sex/gender are commonly considered. Current depressive and posttraumatic stress symptoms may be useful in sensitivity analyses because they correlate with trauma, emotion dysregulation, and BPD features; however, automatically controlling for variables that may themselves lie on the trauma pathway can induce overadjustment. Covariate decisions should therefore be preregistered and supported by a causal diagram rather than selected solely because bivariate correlations are significant.

Table 2. Recommended operationalization of the primary model

| Construct                       | Role                   | Recommended operationalization                                     | Primary score                            | Key caution                                          |
|---------------------------------|------------------------|--------------------------------------------------------------------|------------------------------------------|------------------------------------------------------|
| Childhood trauma                | Predictor (X)          | Validated maltreatment/trauma inventory covering abuse and neglect | Total severity; subtype scores secondary | Retrospective recall; overlapping trauma types       |
| Emotion regulation difficulty   | Mediator (M)           | DERS or validated short form                                       | Total difficulty score                   | Differentiate dysregulation from specific strategies |
| Borderline personality features | Outcome (Y)            | Validated dimensional BPF scale                                    | Continuous total score                   | Questionnaire score is not equivalent to diagnosis   |
| Age; sex/gender                 | Covariates             | Self-report demographic variables                                  | Prespecified coding                      | Avoid unnecessary model saturation                   |
| Depression/PTSD symptoms        | Sensitivity covariates | Validated symptom scales                                           | Continuous scores                        | Potential overadjustment if on causal pathway        |

Procedure and Ethics

Participants should receive a clear information sheet explaining that the study includes questions about adverse childhood experiences, emotional functioning, and potentially distressing behaviors or symptoms. Informed consent must emphasize voluntary participation, the right to skip questions, and the right to withdraw within the limits of anonymized data handling. Trauma-related surveys can evoke distress even in non-clinical participants; therefore, a brief distress protocol and referral information should be available. Data collection should be anonymous or pseudonymized whenever possible. Contact information used for compensation or follow-up should be stored separately from survey responses. If the borderline-feature instrument contains self-harm or suicidality items, the research team should have an ethics-approved response plan that is proportionate to the study setting and local regulations. Online studies must clearly explain the limits of real-time risk monitoring. The study should receive approval from an institutional ethics committee before recruitment. A preregistration should specify hypotheses, exclusion criteria, scoring rules, primary and secondary outcomes, covariates, handling of missing data, and the mediation model. Preregistration is especially valuable in mediation research because many analytically plausible variants can otherwise inflate false-positive risk.

Statistical Analysis Plan:

Analyses should begin with data screening, descriptive statistics, scale reliability, and examination of missingness. Distributional shape reported, but mediation models generally do not require that the indirect effect itself normally distributed because bootstrapping directly estimates its empirical sampling distribution. Extreme outliers not removed automatically; influence diagnostics and robust sensitivity analyses are preferable. The primary mediation model estimated using ordinary least squares path analysis when all variables observed continuous scores. Path a

regresses emotion regulation difficulty on childhood trauma. Path b regresses borderline personality features on emotion regulation difficulty while controlling childhood trauma. The total effect c is the trauma–borderline association without the mediator, and c' is the direct effect after the mediator is included. The indirect effect is  $a \times b$ . Five thousand or more bootstrap resamples used to generate a bias-corrected or percentile 95% confidence interval. The indirect effect considered statistically distinguishable from zero when that interval does not include zero. Standardized coefficients reported alongside unstandardized coefficients. The proportion mediated described cautiously when total and indirect effects have compatible signs, but it not over interpreted because ratios can become unstable when the total effect is small. Model fit indices are required if structural equation modeling is used with latent variables, but they are not applicable to a just-identified observed-variable mediation model in the same way. Secondary analyses can test each trauma subtype as a predictor, but multiple-comparison control considered. Another useful model replaces global DERS with selected subdomains such as nonacceptance, strategies, or impulse-control difficulty. These analyses clearly labeled exploratory unless preregistered. Parallel models can also test attachment, mentalization, or impulsivity as additional mediators, reflecting emerging evidence that these processes may coexist with emotion dysregulation (Chung et al., 2026; Morillas et al.,2026). Sensitivity analyses should compare models with and without demographic covariates and, separately, with current depressive or PTSD symptoms. If the sample includes both community and clinical participants, sampling source modeled as a covariate or moderator. Measurement invariance across sex/gender groups assessed when subgroup comparisons are a substantive aim and sample sizes permit.

Table 3. Primary statistical tests and reporting requirements

| Analysis               | Parameter                | Recommended reporting                   | Interpretive question                                              |
|------------------------|--------------------------|-----------------------------------------|--------------------------------------------------------------------|
| Descriptive            | M, SD, range, skewness   | All primary variables; trauma subtypes  | Is there adequate variability and any severe distribution problem? |
| Reliability            | $\omega$ and/or $\alpha$ | Each multi-item scale/subscale          | Are scores sufficiently internally consistent?                     |
| Bivariate associations | r with 95% CI            | X-M, M-Y, X-Y                           | Are hypothesized variables associated in expected directions?      |
| Path a                 | $X \rightarrow M$        | b, SE, standardized $\beta$ , p, 95% CI | Does trauma severity predict greater dysregulation?                |

| Path b          | M → Y controlling X           | b, SE, standardized β, p, 95% CI       | Does dysregulation uniquely relate to BPF?            |
|-----------------|-------------------------------|----------------------------------------|-------------------------------------------------------|
| Indirect effect | a × b                         | Bootstrap estimate and 95% CI          | Is statistical mediation supported?                   |
| Direct effect   | c'                            | b, SE, standardized β, p, 95% CI       | How much trauma–BPF association remains after M?      |
| Sensitivity     | Alternative covariates/models | Effect estimates across specifications | Are conclusions robust to plausible analytic choices? |

Evidence-Based Interpretation Framework

Because no original dataset accompanies this manuscript, this section does not present invented numerical results. Instead, it specifies how real findings should be interpreted and how alternative patterns would affect the theoretical conclusions.

Pattern Consistent with Mediation:

The most theory-consistent pattern would show positive associations among childhood trauma, emotion regulation difficulties, and borderline personality features; a significant path a; a significant path b; and a bootstrapped indirect effect whose confidence interval excludes zero. If the direct effect remains nonzero but is smaller than the total effect, the evidence would support partial statistical mediation. Such a pattern would closely align with recent young-adult findings reported by Turner and Chapman (2025) and with the broader synthesis by Thornton et al. (2025). Partial mediation would be theoretically plausible because trauma can influence borderline features through multiple pathways beyond emotion regulation. Attachment insecurity, dissociation, metalizing difficulties, impulsivity, social cognition, ongoing victimization, and genetic vulnerability may account for remaining direct or un-modeled associations. A residual direct effect therefore not interpreted as a failure of the emotion-regulation model.

Significant Trauma-Borderline Association without Mediation:

If childhood trauma predicts borderline features but the indirect effect through emotion regulation is not significant, several explanations are possible. Emotion regulation may not be the dominant mechanism in that sample; the selected measure may not capture the relevant regulatory process; the sample may have restricted variability; or cross-sectional timing may obscure dynamic regulation processes. In young adults, interpersonal regulation, attachment, or epistemic trust may be proximal mechanisms for some trauma histories. Null mediation not interpreted as evidence that emotion regulation is clinically irrelevant. It would indicate only that the specified statistical pathway not supported under the measurement and design

conditions used. This distinction is essential for avoiding overgeneralization.

Indirect Effect without a Strong Total Effect:

Modern mediation theory does not require a statistically significant total effect before an indirect effect examined. Opposing pathways, heterogeneous subgroups, or suppression can produce a small total association while a specific indirect effect is present. If such a pattern occurs, authors should report it transparently and avoid the older terminology of 'full mediation' unless the theoretical assumptions are exceptionally strong. The emphasis should remain on the estimated indirect pathway and its uncertainty.

Trauma Subtype Findings:

If emotional abuse or emotional neglect shows stronger associations than other subtypes, this would be consistent with several recent studies emphasizing emotionally invalidating or omission-based experiences. However, because maltreatment types overlap, subtype coefficients not treated as clean causal contrasts. Vonderlin et al. (2026) and Morillas et al. (2026) both underscore the importance of cumulative and multivariate perspectives. A robust paper should report intercorrelations among trauma subscales and acknowledge multicollinearity and poly victimization.

Discussion

The central proposition of this article is that emotion regulation is a plausible developmental mechanism linking childhood trauma with borderline personality features in young adulthood. The recent evidence base is notable for convergence across study designs. Cross-sectional studies connect trauma exposure with regulatory difficulties and borderline traits; longitudinal work in young adults supports mediation over repeated assessments; psychometric research continues to refine emotion-regulation measurement; and newer studies identify complementary mechanisms such as attachment, mentalization, epistemic mistrust, and impulsivity. This convergence favors a multi-mechanism developmental account in which emotion regulation is central but not exclusive.

From a developmental perspective, childhood trauma may shape both the intensity of emotional activation and the repertoire available for managing it. A child repeatedly exposed to threat may become highly sensitive to social cues and slow to return to baseline after activation. A child whose emotions are ignored or punished may have fewer opportunities to learn emotional labeling, acceptance, and flexible modulation. Over time, these patterns may increase reliance on short-term regulatory behaviors that reduce distress immediately but generate interpersonal or functional costs. In young adulthood, when social roles become more demanding, these difficulties may manifest as unstable relationships, rapid shifts in self-evaluation, intense anger, impulsive behavior, or other borderline features.

This framework is consistent with the fact that not all trauma-exposed individuals develop borderline pathology. Emotion-regulation capacity varies substantially across individuals and supported by protective relationships, temperament, later corrective experiences, therapy, and social resources. The 2024 study by Woolgar et al. is relevant in this respect because it highlights adaptive cognitive reappraisal as a potentially protective regulatory strategy among young adults with ACE histories. The implication is not that reappraisal alone prevents BPD, but that specific regulation processes may help explain resilience as well as vulnerability.

The proposed model also has clinical significance because emotion regulation is modifiable. Trauma history cannot be changed, but current regulation skills, emotional awareness, tolerance of distress, and behavioral responses to intense affect targeted therapeutically. Recent clinical reviews continue to emphasize psychotherapy as the main intervention approach for core BPD features, including treatments that directly address emotion regulation and interpersonal functioning (Ellappan et al.,2025; Aslam et al.,2025). If emotion dysregulation statistically mediates trauma-related risk, interventions focused on regulation may address one mechanism through which developmental adversity remains behaviorally active in the present.

Nevertheless, trauma-informed care requires more than teaching skills. Some regulation difficulties are embedded in interpersonal expectations, shame, mistrust, dissociation, and chronic invalidation. A purely skills-based interpretation risks individualizing problems that developed relationally. Emerging evidence on mentalization, attachment, and epistemic trust suggests that treatment may need to combine emotion-regulation work with interventions that address how people understand their own mental states, interpret others' intentions, and use relationships as sources of safety and learning (Chung et al.,2026; Li et al.,2026).

The distinction between emotion regulation and emotion dysregulation also deserves precision. 'Emotional regulation' sometimes used colloquially to mean good control, while research instruments such as the DERS measure difficulties in regulation. In the proposed model, higher mediator scores indicate greater dysregulation. Authors should state the scoring direction clearly, because ambiguity can reverse the apparent interpretation of path coefficients.

### **Clinical and Preventive Implications**

If the proposed mediation pathway supported, screening and prevention efforts could focus on trauma-exposed young adults who show persistent emotion-regulation difficulties rather than treating trauma exposure alone as sufficient evidence of borderline risk. Such an approach is more specific and less stigmatizing. It identifies a current, potentially modifiable process rather than labeling individuals on the basis of past adversity.

University counseling centers, primary mental health services, and youth programs may be important settings for early identification because many individuals with emerging borderline features first present with anxiety, depression, relationship crises, self-harm, or academic disruption rather than requesting assessment for personality pathology. Brief measures of emotion dysregulation can help identify people who may benefit from further assessment, but they not used as stand-alone diagnostic tools.

Intervention targets may include emotional awareness and labeling, acceptance of emotional states, flexible strategy selection, reduction of experiential avoidance, distress tolerance, and impulse control during high arousal. When interpersonal dysregulation is prominent, treatment should also address reassurance seeking, withdrawal, conflict escalation, fear of abandonment, and difficulties using supportive relationships. Trauma-focused work should be paced carefully and integrated with stabilization when severe dysregulation or acute risk is present.

At a preventive level, the model highlights the importance of caregiving environments that support co-regulation. Prevention of maltreatment remains primary, but secondary prevention can include parent education, emotion coaching, school-based socioemotional programs, and accessible youth mental-health support after adversity. The mechanism-focused perspective suggests that strengthening regulation after trauma may reduce downstream psychopathology even when adversity not fully prevented.

### **Methodological Strengths of the Proposed Approach**

The proposed framework has several strengths. First, it uses a dimensional outcome appropriate to

young adults and community-clinical continua. Second, it treats emotion regulation as a measurable mechanism rather than a vague descriptive construct. Third, it prioritizes bootstrapped indirect-effect estimation, which is more appropriate than relying on sequential significance tests. Fourth, it distinguishes primary confirmatory analyses from secondary subtype and subscale analyses. Fifth, it explicitly avoids causal language when the design is cross-sectional.

The framework also aligns with current open-science practices. Preregistration, transparent exclusions, reporting of all planned models, confidence intervals, reliability estimates, and sensitivity analyses reduce analytic flexibility. Sharing de-identified data and code when ethically permissible would further improve reproducibility. Because trauma data are sensitive, open-science practices must be balanced with privacy protections and the risk of re-identification.

### **Limitations and Critical Considerations**

The first limitation is retrospective trauma assessment. Adults' reports of childhood experiences are clinically meaningful but can be influenced by memory, current mood, interpretation, and willingness to disclose. Retrospective measures should therefore be framed as self-reported childhood trauma history rather than objective records of exposure. Whenever feasible, future longitudinal cohorts should integrate prospective records, caregiver reports, or repeated developmental assessments.

Second, common-method variance can inflate associations when trauma, emotion regulation, and borderline features are all assessed by self-report questionnaires at the same sitting. Multimethod designs can reduce this problem by adding clinician ratings, behavioral emotion-regulation tasks, ecological momentary assessment, or informant measures. Li et al. (2026) illustrates the value of behavioral paradigms when studying trauma-related mechanisms in young adults.

Third, cross-sectional mediation is structurally limited. Statistical decomposition of associations does not demonstrate that trauma caused dysregulation, which then caused borderline features. Reverse or reciprocal effects are plausible. Borderline symptoms can disrupt relationships and increase emotional instability, which may in turn reinforce dysregulation. Longitudinal models with repeated mediator and outcome measures needed to test temporal ordering and reciprocal effects.

Fourth, clinical and community samples can yield different effect sizes. Clinical samples may have high trauma and symptom severity but restricted variance, whereas community samples provide broader dimensional variation but fewer individuals with severe pathology. Recruitment context should therefore be reported and, if mixed, modeled explicitly.

Fifth, sex and gender distributions in BPD research are often unbalanced. Treatment-seeking samples frequently include more women, which may reflect referral patterns as well as true differences in presentation. Researchers should report sex and gender clearly, avoid assuming generalizability to underrepresented groups, and test measurement invariance or moderation only when adequately powered.

Sixth, trauma exposure is heterogeneous. A total CTQ or ACE score can be useful for a primary model, but it may conceal differences in timing, chronicity, severity, relational context, and co-occurrence. Conversely, testing many subtypes separately can produce multiple-testing problems and unstable unique effects. The most defensible strategy is a preregistered total-score primary analysis supplemented by cautious subtype analyses. Seventh, emotion regulation itself is heterogeneous. Global dysregulation scores may be driven by different facets in different participants. Impulse-control difficulty under distress, lack of strategies, nonacceptance, and poor emotional clarity may have distinct developmental origins and clinical consequences. Secondary models should therefore examine subdomains without fragmenting the primary hypothesis.

Finally, the proposed model is intentionally incomplete. Genetics, temperament, neurobiological sensitivity, attachment, mentalization, dissociation, socioeconomic adversity, peer victimization, current relationships, substance use, and treatment exposure may all influence the pathway. Recent genetic work further underscores that BPD reflects both environmental and heritable influences rather than a trauma-only etiology. A mediation model should therefore be interpreted as one explanatory pathway within a broader developmental system.

### **Directions for Future Research**

Future studies should prioritize longitudinal designs beginning before the peak age of borderline symptom emergence. Repeated assessments can test whether trauma exposure predicts changes in emotion regulation, and whether those changes in turn predict later borderline features after controlling prior symptom levels. This is substantially stronger than asking all variables retrospectively at one time point.

Ecological momentary assessment is another priority. Trait questionnaires summarize typical functioning but cannot capture rapid emotional sequences that may be central to borderline pathology. Smartphone-based repeated sampling can assess triggers, affective intensity, regulatory strategies, interpersonal context, and subsequent behavior in real time. Such designs can test whether trauma-exposed young adults show slower emotional recovery or greater reliance on maladaptive interpersonal regulation.

A third direction is multiple mediation. Attachment insecurity, mentalization, epistemic mistrust, dissociation, and impulsivity modeled alongside emotion regulation rather than as competing explanations. Recent studies suggest that these mechanisms may operate in parallel or sequentially (Chung et al., 2026; Li et al., 2026; Morillas et al., 2026). Larger samples are required to estimate these more complex models reliably.

A fourth direction is mechanism-focused intervention research. If improving emotion regulation reduces borderline features more strongly among trauma-exposed young adults that would provide stronger evidence that the mediator is clinically meaningful. Experimental or quasi-experimental changes in regulation are more informative about mechanism than cross-sectional associations alone.

Finally, future research should improve cultural diversity. Meanings of emotional expression, family obligation, invalidation, and help seeking vary across cultural contexts. Measures developed in one population may not function identically in another. Cross-cultural measurement invariance and culturally grounded models are therefore essential before generalizing mediation pathways globally.

### Conclusion

Recent evidence supports a coherent developmental hypothesis in which childhood trauma is associated with borderline personality features partly through difficulties in emotion regulation. The association is not deterministic, and emotion dysregulation is not the only relevant mechanism. Nevertheless, converging evidence from young-adult studies, longitudinal analyses, systematic review, daily-life emotion research, and contemporary BPD mechanism studies places emotion regulation at the center of a plausible trauma-to-borderline pathway. The proposed mediation model offers a rigorous and feasible framework for empirical testing. A strong study should use validated dimensional measures, an adequately powered young-adult sample, bootstrapped indirect-effect estimation, transparent covariate decisions, careful distinction between statistical and causal mediation, and sensitivity analyses addressing trauma subtypes and comorbidity. Longitudinal and multimethod designs are the next step for determining whether emotion-regulation difficulties prospectively transmit the effects of developmental trauma into emerging borderline personality pathology. Clinically, the model is valuable because it points toward a modifiable process. Childhood adversity not undone, but the ways emotions are identified, tolerated, interpreted, and managed can change. Understanding when and for whom emotion regulation carries trauma-related risk may improve prevention, early intervention, and individualized

treatment for young adults with borderline personality features.

### Disclosure Statement

No potential conflict of interest reported by the authors.

### Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### Authors' Contributions

All authors contributed to data analysis, drafting, and revising of the paper and agreed to be responsible for all the aspects of this work.

### References

- [1] Alhammad, M. A., Alshammari, H. M., Alnafeea, N. W., et al. (2025). [The impact of childhood maltreatment on the development of borderline personality disorder in adolescents: A narrative review](#). *Cureus*, 17(12), e99736.
- [2] Aslam, H. M., Brodeur, J., & Links, P. S. (2025). [Clinical practice guidelines for the treatment of borderline personality disorder: A systematic review of best practice](#). *Borderline Personality Disorder and Emotion Dysregulation*, 12, 13.
- [3] Chung, Y. S., Shin, H., Koo, B.-H., Yun, S., Oh, U.-J., Choi, S.-W., Choo, B., et al. (2026). [Mentalization as a mediator of the effects of early life stress on borderline personality disorder in a South Korean clinical sample](#). *Borderline Personality Disorder and Emotion Dysregulation*, 13, 11.
- [4] Costanzo, G., Falgares, G., Musso, P., Infurna, M. R., & Manna, G. (2026). [Childhood emotional and physical maltreatment and borderline personality disorder features in adolescence: A dual-model examination of mediation and moderation via secure and insecure attachment](#). *Child Abuse & Neglect*, 174, 107969.
- [5] Ellappan, S., Subba, R., & Mondal, A. C. (2025). [Understanding borderline personality disorder: Clinical features, neurobiological insights, and therapeutic strategies](#). *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 139, 111403.
- [6] González-Roz, A., Postigo, Á., Castaño, Y., et al. (2024). [Validation of the Difficulties in Emotion Regulation Scale \(DERS-28\) in Spanish young adult substance users](#). *Current Psychology*, 43, 19019-19031.
- [7] Kaçar-Başaran, S., & Kızıltepe, R. (2025). [Associations of childhood maltreatment and emotion dysregulation with internalizing and externalizing symptoms: A transdiagnostic model](#). *Journal of Family Violence*.

- [8] Kaess, M., & Cavelti, M. (2025). Research review: What we have learned about early detection and intervention of borderline personality disorder. *Journal of Child Psychology and Psychiatry*, 66(12), 1829-1848.
- [9] Kuenzli, E., Balogh, L., Somogyi, S., Lévy, E. E., Halmai, Z., Nemoda, Z., Unoka, Z. S., & Rothley, J. M. (2025). Emotion dysregulation and impulsivity as overlapping symptoms in adult attention-deficit/hyperactivity disorder and borderline personality disorder: Severity profiles and associations with childhood traumatization and personality functioning. *Annals of General Psychiatry*, 24, 3.
- [10] Li, E., Campbell, C., Mayes, L. C., McRedmond, G., et al. (2026). A laboratory task to assess epistemic mistrust: Behavioral evidence for mediation between childhood trauma and borderline personality features in young adults. *Borderline Personality Disorder and Emotion Dysregulation*, 13, 2.
- [11] Mancinelli, E., et al. (2024). Validation of the Difficulties in Emotion Regulation Scale–Short Form in a sample of Italian adolescents. *Journal of Clinical Psychology*.
- [12] Morillas, J., Calvo, N., Gallardo, N., Gil, M., Clougher, D., Crespín, J. J., Ramos-Quiroga, J. A., Amoretti, S., & Ferrer, M. (2026). From childhood trauma to functional impairment in borderline personality disorder: The mediating role of emotion dysregulation and impulsivity. *Frontiers in Psychology*, 17, 1915829.
- [13] Niedtfeld, I., Schmitz, S. E., Langenstein, M., et al. (2025). Intra- and interpersonal emotion regulation altered in individuals with childhood maltreatment: Cross-sectional associations and effects on daily life mood. *Borderline Personality Disorder and Emotion Dysregulation*, 12, 23.
- [14] Samimi Ardestani, S. M., Aminaee, M., Khosravani, V., Beheshti Mashhadi, S., Sadjadi, S. A., & Abdollah pour Ranjbar, H. (2026). Mechanisms of vulnerability in borderline personality psychopathology: The role of childhood maltreatment, social cognition, and emotion dysregulation. *Journal of Affective Disorders*, 414, 122360.
- [15] Sikand, M., & Bhola, P. (2025). Relationship-specific attachment and mentalization as predictors of borderline personality features and interpersonal competence among emerging adults. *Personality and Mental Health*.
- [16] Thornton, A., Gardner, K. J., Graham-Kevan, N., Parkinson, J., Rynne, R., Slankauskas, N., Pritchard, C., Baxter, K., Tranter, H., & Holland, O. (2025). The relationship between adverse childhood experiences, emotion dysregulation and personality disorder traits: A systematic review and mediation analysis. *Journal of Affective Disorders*, 389, 119618.
- [17] Turner, C. J., & Chapman, A. L. (2025). The role of impulsivity and emotion regulation difficulties in nonsuicidal self-injury and borderline personality disorder symptoms among young adults. *Personality and Mental Health*, 19(2), e1640.
- [18] Vonderlin, R., Senyüz, B., Claus, C., Mahalingam, S., Schulze, A., Koch, S., Voderholzer, U., Schmahl, C., et al. (2026). The role of different forms of adverse childhood experiences in borderline personality disorder: Results from a network analysis including clinical and non-clinical populations. *Borderline Personality Disorder and Emotion Dysregulation*, 13, 20.
- [19] Woolgar, S., Kealy, D., Cox, D., & Ben-David, S. (2024). Moderating effects of emotion regulation strategies on borderline personality symptoms in young adults with adverse childhood experiences. *Cogent Mental Health*, 3(1), 2313363.
- [20] Zitzmann, J., Rombold-George, L., Rosenbach, C., et al. (2024). Emotion regulation, parenting, and psychopathology: A systematic review. *Clinical Child and Family Psychology Review*, 27, 1-22.