KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 22 October 2025
Revised 28 January 2026
Accepted 04 February 2026
Initial Published 12 February 2026
Final Publication 10 April 2026

Journal of Adolescent and Youth Psychological Studies

Volume 7, Issue 4, pp 1-11

E-ISSN: 2981-2526

The Structural Model of Identity Instability Based on Object Relations and Childhood Trauma with the Mediating Role of Mental Pain

Fatemeh Zhinous. Malekzadeh[1], Mohammad. Mohammadipour[2*], Mahmoud. Jajarmi[1]

[1] Department of Counseling, Boj.C, Islamic Azad University, Bojnourd, Iran
[2] Department of Psychology, Qu.C., Islamic Azad University, Quchan, Iran

*** Corresponding author email address**: mmohammadipour@iau.ac.ir

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Malekzadeh, F. Z., Mohammadipour, M., & Jajarmi, M. (2026). The Structural Model of Identity Instability Based on Object Relations and Childhood Trauma with the Mediating Role of Mental Pain. *Journal of Adolescent and Youth Psychological Studies, 7*(4), 1-11.
http://dx.doi.org/10.61838/kman.jayps.5031

A B S T R A C T

Objective: This study aimed to examine a structural model in which adverse childhood experiences and relational disturbances predict self-injurious behaviors through the mediating roles of identity diffusion and psychological pain in adolescents.

Methods and Materials: The study employed a descriptive–correlational design using structural equation modeling. Participants were adolescents who completed standardized self-report measures assessing adverse childhood experiences, relational disturbances, identity diffusion, psychological pain, and self-injurious behaviors. Data were analyzed using confirmatory factor analysis to evaluate the measurement model, followed by structural equation modeling to test direct and indirect pathways among variables. Model fit was assessed using multiple goodness-of-fit indices, and indirect effects were examined to determine the mediating roles of identity diffusion and psychological pain.

Findings: The results indicated that adverse childhood experiences and relational disturbances had significant positive effects on identity diffusion and psychological pain. Identity diffusion was a significant predictor of psychological pain, and psychological pain showed a strong direct effect on self-injurious behaviors. Indirect pathway analyses revealed that the effects of early relational adversity on self-injury were partially mediated by identity diffusion and psychological pain. The overall structural model demonstrated acceptable fit indices and substantial explanatory power for self-injurious behaviors.

Conclusion: The findings support a developmental–relational model of adolescent self-injury in which early adversity and relational disruptions contribute to identity fragmentation and psychological pain, thereby increasing vulnerability to self-injurious behaviors, highlighting the importance of addressing internal suffering and identity processes in prevention and intervention efforts.

Keywords: *identity instability, object relations, childhood trauma, mental pain, self-injurious behavior.*

1. Introduction

Self-harm and suicidal behaviors among adolescents and young adults have emerged as a critical global public health concern, with consistently rising prevalence rates reported across diverse cultural, socioeconomic, and clinical contexts. Meta-analytic and epidemiological evidence indicates that suicide is among the leading causes of death in adolescence, while non-suicidal self-injury (NSSI) constitutes one of the most frequent maladaptive coping strategies used to regulate intense emotional distress during this developmental period (Glenn et al., 2020; González-Arrimada et al., 2025). These behaviors not only reflect acute psychological vulnerability but also signify deeper disruptions in identity formation, emotion regulation, and relational functioning. Contemporary research increasingly emphasizes that self-harm and suicidal ideation are not isolated symptoms but are embedded within complex developmental trajectories shaped by early adversity, interpersonal experiences, and internal psychological processes (Aggarwal et al., 2021; Pompili et al., 2018).

Adolescence represents a sensitive developmental window characterized by profound neurobiological, emotional, and social transformations. During this period, individuals must integrate evolving self-representations, negotiate autonomy from caregivers, and establish stable interpersonal bonds. Disruptions in these processes may render adolescents particularly susceptible to internalizing distress and engaging in self-injurious behaviors as a means of affect regulation or self-punishment (Waterman, 2020; Wheeler & Bechler, 2021). Empirical studies demonstrate that difficulties in identity coherence, emotion differentiation, and interpersonal trust significantly elevate the risk of suicidal ideation and self-harm, particularly when combined with cumulative psychosocial stressors (Nikousaft & Gharehbaghi, 2020; Timpano & Port, 2021).

A substantial body of literature highlights the foundational role of adverse childhood experiences (ACEs) in shaping long-term mental health outcomes. Emotional abuse, physical abuse, sexual abuse, and neglect have been consistently linked to heightened vulnerability to depression, anxiety, identity disturbance, and suicidal behaviors later in life (Bernstein et al., 2003; Jiaa & Lubetkin, 2020). Early trauma compromises the development of secure attachment, self-worth, and emotional regulation capacities, thereby increasing reliance on maladaptive coping mechanisms during adolescence. Longitudinal and population-based studies further indicate that exposure to childhood maltreatment is associated with reduced quality-adjusted life expectancy and persistent psychosocial impairment (Jiaa & Lubetkin, 2020; Klifto et al., 2020).

Beyond direct trauma exposure, relational disruptions such as emotional deprivation, social exclusion, and loss experiences exert a powerful influence on adolescent mental health. Social deprivation, whether stemming from neglectful caregiving, peer rejection, or contextual factors such as quarantine and social isolation, has been shown to adversely affect neurodevelopmental processes related to reward sensitivity, emotional processing, and social cognition (Orben et al., 2020). Studies conducted during the COVID-19 pandemic revealed alarming increases in suicidal ideation and emotional distress among adolescents and young adults, underscoring the psychological cost of relational disconnection and unmet attachment needs (Alves et al., 2025; García-Iglesias et al., 2022).

Interpersonal stressors such as bullying victimization, romantic breakups, and chronic peer aggression further intensify psychological vulnerability during adolescence. Evidence from diverse cultural contexts demonstrates robust associations between bullying experiences and suicidal ideation, mediated by factors such as emotional dysregulation, hopelessness, and identity confusion (Sun et al., 2024; Veloso-Besio et al., 2023). Similarly, relational loss and romantic dissolution have been linked to elevated suicidal ideation, particularly among young adults navigating identity consolidation and emotional autonomy (Valladares-Garrido et al., 2023). These findings reinforce the importance of understanding self-harm within a relational-developmental framework rather than as an individual pathology alone.

Within this framework, the construct of psychological or mental pain has gained increasing prominence as a central mechanism linking early adversity, relational trauma, and self-injurious behaviors. Mental pain refers to an intense, subjective experience of inner suffering characterized by feelings of emptiness, worthlessness, loss of control, and emotional disintegration (Cassell, 1999; Orbach et al., 2003). Unlike general distress or depressive symptoms, psychological pain captures the phenomenological depth of suffering that often precedes suicidal ideation and self-harm. Empirical evidence suggests that mental pain is a stronger predictor of suicidal behavior than traditional diagnostic categories, highlighting its transdiagnostic relevance (Pompili et al., 2018).

Recent studies have empirically demonstrated the mediating role of psychological pain in the relationship

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

between identity-related variables and self-injurious behaviors. Adolescents who experience fragmented self-representations and incoherent self-knowledge are more likely to report elevated mental pain, which in turn increases the likelihood of engaging in self-harm as a means of emotional escape or self-regulation (Shehdadian et al., 2024). This mediational pathway underscores the critical role of internal subjective experience in translating developmental and relational vulnerabilities into behavioral outcomes.

Identity development constitutes another key dimension in understanding adolescent self-harm. The process of identity formation involves integrating past experiences, present roles, and future aspirations into a coherent sense of self. Traumatic experiences, particularly those occurring in relational contexts, can disrupt this integration, resulting in identity diffusion, instability, and internal fragmentation (Waterman, 2020). Research grounded in object relations and attachment theory suggests that insecure early relationships impair the internalization of stable self- and object-representations, thereby compromising identity coherence and emotional regulation (Timpano & Port, 2021; Wheeler & Bechler, 2021).

Empirical investigations further indicate that ego strength and internal psychological resources moderate the impact of relational disturbances on identity outcomes. Individuals with lower ego strength are less capable of integrating conflicting emotional experiences and are therefore more prone to identity diffusion and maladaptive coping strategies (Nikousaft & Gharehbaghi, 2020). In the absence of sufficient internal containment, psychological pain may become overwhelming, prompting self-injurious behaviors as an attempt to externalize or momentarily relieve inner suffering.

Lifestyle factors and contemporary contextual influences also contribute to the increasing prevalence of self-harm among adolescents. Excessive screen time, problematic digital engagement, and exposure to harmful online content have been associated with increased rates of self-injury and suicidal ideation, particularly during periods of social restriction and reduced offline support (Alves et al., 2025; González-Arrimada et al., 2025). While digital environments may offer avenues for social connection, they can also exacerbate social comparison, emotional dysregulation, and exposure to self-harm-related content, thereby intensifying psychological vulnerability (Orben et al., 2020).

From a public health perspective, stigma surrounding self-harm and suicide remains a significant barrier to early identification and intervention. Adolescents who engage in self-injurious behaviors often experience shame, secrecy, and fear of social judgment, which impede help-seeking and exacerbate isolation (Aggarwal et al., 2021). Addressing stigma and fostering trauma-informed, developmentally sensitive approaches are therefore essential components of effective prevention and intervention strategies.

Despite substantial advances in the literature, important gaps remain in the integrated understanding of how early relational adversity, psychological pain, and identity processes interact to influence self-harm risk in adolescents. While prior studies have examined these variables in isolation, fewer investigations have simultaneously modeled their interrelationships within a comprehensive developmental framework. In particular, the combined roles of adverse childhood experiences, relational disturbances, identity diffusion, and psychological pain warrant further empirical clarification to inform targeted prevention and intervention efforts (García-Iglesias et al., 2022; Veloso-Besio et al., 2023).

Accordingly, the present study aims to examine a structural model in which adverse childhood experiences and relational disturbances predict self-injurious behaviors through the mediating roles of identity diffusion and psychological pain in adolescents.

2. Methods and Materials

2.1. Study Design and Participants

The present study is applied in terms of its aim and, in terms of data collection and nature, is a quantitative descriptive–correlational study, and the research model was tested using structural equation modeling techniques. The statistical population consisted of all male and female students in the second level of public secondary schools in Gonbad-e Kavus who exhibited self-injurious behavior in the 2024–25 academic year. A total of 315 students (200 girls and 115 boys) were selected using a non-random purposive sampling method. Data were collected using the Identity Instability Scale by Lechner (2022), the Object Relations Inventory by Bell et al. (1986), the Childhood Trauma Questionnaire by Bernstein et al. (2003), and the Mental Pain Questionnaire by Orbach et al. (2003).

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

2.2. *Measures*

Self-Injurious Thoughts and Behaviors Questionnaire by Klonsky and Glenn (2009) (ISAS): This questionnaire is a self-report instrument that assesses the frequency and functions of non-suicidal self-injurious behaviors. It includes the frequency of 12 different types of self-injurious behaviors that are carried out deliberately (consciously) but not with suicidal intent. These behaviors include hitting/slamming, biting, burning, tattooing, cutting, interfering with wound healing, pinching, hair pulling, rubbing the skin against rough surfaces, severe scratching, inserting needles into the body, and ingesting dangerous chemicals. Test–retest reliability for this part over a 1–4 week interval was 0.85. Internal consistency across items using Cronbach's alpha was 0.84. Responses to the questionnaire items (such as "I have deliberately poured acid on my skin" or "I have deliberately cut my skin with a razor or other sharp object") are given on a 3-point Likert scale, ranging from completely unrelated to somewhat related and completely related. Thus, each subscale is scored from 0 to 6. The total score is obtained by summing the subscale scores and dividing by their number. In Iran, this questionnaire was examined by Safariniya, Nikogoftar, and Damavandian (2014), and its reliability was calculated using Cronbach's alpha as 0.76. Face and content validity were assessed and confirmed by experts. In the present study, the reliability of this questionnaire was 0.86 based on Cronbach's alpha.

Identity Instability Scale by Lechner (2023) (IIS): This questionnaire was developed by Claudia Andrea Lechner in 2023 and consists of 21 items rated on a Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. The questionnaire has two subscales: self-dissolution (void identity/empty or hollow self) (items 1–14) and other-dependence (enmeshed identity or self-involvement) (items 15–21). Higher scores on the total scale and its subscales indicate higher levels of identity instability, disconnection from the self, and reliance on others. Cronbach's alpha coefficients for the self-dissolution subscale, other-dependence subscale, and total scale were 0.73, 0.80, and 0.88, respectively. To assess convergent validity, the Spann–Fischer Coherence Scale was used. This scale consists of 16 items rated on a 6-point Likert scale, where 1 = strongly disagree, 2 = somewhat disagree, 3 = slightly disagree, 4 = slightly agree, 5 = somewhat agree, and 6 = strongly agree. The total score is calculated by summing all item scores; items 5 and 7 are reverse scored. Higher scores indicate higher levels of coherence. The correlation with this questionnaire was 0.38, which was reported as acceptable convergent validity. Divergent validity was assessed using the Santa Clara Brief Self-Compassion Scale, which consists of 5 items rated on a 7-point Likert scale, where 1 = not at all true of me and 7 = very true of me. The total score is obtained by summing the items, and higher scores indicate greater self-compassion; its correlation coefficient was 0.50, which was considered satisfactory. In the present study, the reliability of this questionnaire was 0.88 based on Cronbach's alpha. It is worth noting that this questionnaire was normed for the first time on an Iranian student population by the present researcher.

Childhood Trauma Questionnaire (CTQ) (2003): The Childhood Trauma Questionnaire (CTQ) was developed by Bernstein et al. (2003) to assess trauma and adverse experiences in childhood. It consists of 28 items, 25 of which are used to measure the main components of the questionnaire, and 3 of which are used to identify individuals who deny childhood problems. The CTQ includes five components: emotional abuse (items 3, 8, 14, 18, 25), physical abuse (items 9, 11, 12, 15, 17), sexual abuse (items 20, 21, 23, 24, 27), emotional neglect (items 5, 7, 13, 19, 28), and physical neglect (items 1, 2, 4, 6, 26). It is based on a Likert-type scale with items such as "A family member hit me so hard that I had to see a doctor or go to the hospital." Before scoring the components, responses to items 5, 7, 13, 19, 28, 2, and 26 must be reverse scored. Higher scores on the questionnaire indicate greater trauma or adversity, and lower scores indicate less childhood trauma. The score range for each subscale is 5 to 25, and for the total questionnaire 25 to 125. Scoring for each of the components is provided in the original manual. It should be noted that items 10, 16, and 22 are used to assess validity or denial of childhood problems; if the sum of responses to these items exceeds 12, the person's responses are likely to be invalid. Validity is concerned with the extent to which a measurement tool measures what it is supposed to measure. In the study by Enfe'al et al. (2021), the content, face, and criterion validity of this questionnaire were evaluated as appropriate. Reliability refers to the degree of stability of a measurement tool in measuring whatever it measures, that is, the extent to which it yields similar results under the same conditions. In Iran, Ebrahimi et al. reported Cronbach's alpha for the five subscales of this questionnaire to range from 0.81 to 0.98. In the study by Enfe'al et al. (2021), the Cronbach's alpha coefficient for this questionnaire was estimated to be above

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

0.70. In the present study, the reliability of the CTQ was 0.83 using Cronbach's alpha.

Object Relations Questionnaire (BORRTI): This questionnaire was developed by Bell, Billington, and Becker (1986) and has its roots in the assessment of ego functioning (quality of object relations and reality testing) that had previously been developed by Black et al. (1976). The test was originally designed to measure the clinical effects of long-term psychoanalytic treatment for schizophrenia, but it has been used in many research contexts in psychopathology and normal behavior. The full test consists of 90 items with a yes/no response format and covers four factors of object relations—alienation, insecure attachment, egocentricity, and social incompetence—and three factors of reality testing—reality distortion, uncertainty in perception, and delusions and hallucinations. Form B of this test includes 45 items and measures only the quality of object relations. In assessing the reliability of the test, Bell et al. (1986) reported test–retest coefficients for the object relations subscales over a 4-week interval ranging from 58% to 90%, and over a 13-week interval from 65% to 81%. For the reality testing subscales, test–retest reliability coefficients over 4 weeks ranged from 63% to 89%, and over 13 weeks from 63% to 64%. Regarding validity, Bell et al. (1986) reported high correlations between BORRTI and the Brief Psychiatric Rating Scale, the Positive and Negative Syndrome Scale (PANSS), the SCL-90-R, MMPI, MCMI, and various physiological measures. In the present study, the reliability of this questionnaire was 0.81 based on Cronbach's alpha.

Mental Pain Questionnaire (OMMP) (2003): The original version of this questionnaire was developed by Orbach et al. (2003), and the Iranian version was designed by Bagian Kulemarz et al. (2018). This questionnaire contains 44 items and, overall, includes six factors and a total score. Items are rated on a 5-point Likert scale from "strongly disagree" to "strongly agree." The respondent receives a score for each item, and at the end, the scores for all items are summed; the higher the total score, the greater the intensity of mental pain. The Cronbach's alpha coefficient for the Persian version of this questionnaire is 0.96, and the six factors together account for 66% of the variance in mental pain. In the present study, the reliability of this questionnaire was 0.80 based on Cronbach's alpha.

2.3. Data Analysis

To answer the research questions, a field method was employed in online form via the Porsline platform, and the questionnaires were distributed through the Bale, SHAD, and Eitaa applications. For data analysis, mean, standard deviation, confirmatory factor analysis, convergent validity, and reliability were examined using SPSS 28 and SmartPLS-3.

3. Findings and Results

Demographic findings showed that most respondents, that is 61.9%, were girls and 38.1% were boys. The age of the respondents ranged from a minimum of 16 to a maximum of 19 years; age 18, with 35.5%, had the highest frequency, and age 19, with 9.4%, had the lowest frequency. In Table 1, the main variables (object relations, childhood trauma, mental pain, and identity instability) are described using the mean, standard deviation, and minimum and maximum scores.

Table 1

Descriptive indices of the study variables

Variable	Mean	Standard deviation	Minimum	Maximum
Object relations	33.84	5.50	17	43
Childhood trauma	57.01	15.04	27	92
Mental pain	121.54	36.45	52	196
Identity instability	57.19	14.03	32	85

The results of Table 1 showed that the mean of the object relations scale was 33.84, with the minimum and maximum scores obtained on this variable being 17 and 43, respectively. The mean of the childhood trauma scale was 57.01, with scores ranging from a minimum of 27 to a maximum of 92. The mean score of the mental pain scale was 121.54, with scores ranging from a minimum of 52 to a maximum of 196. The mean score of the identity instability scale was 57.19, with minimum and maximum scores of 32 and 85, respectively. The mean of the self-dissolution component was 37.34, and the mean of the other-dependence component was 19.85. In Table 2, Pearson's correlation test was used to examine the correlations among the main variables.

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

Table 2

Pearson correlation matrix

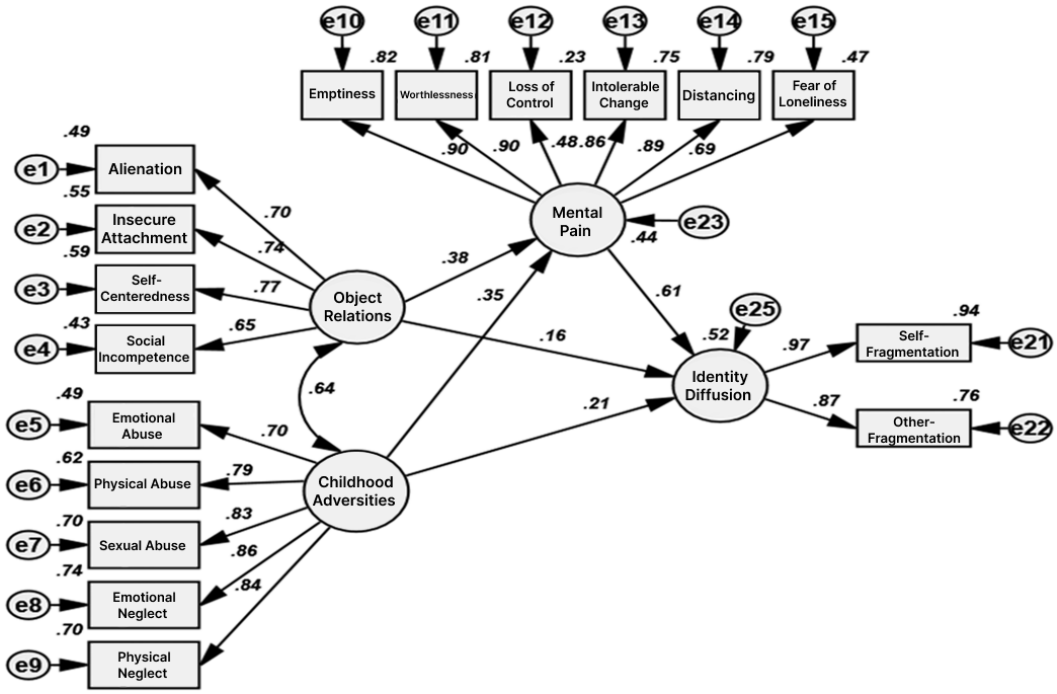
Variable	Object relations	Childhood trauma	Mental pain	Identity instability
Object relations	r = 1	r = 0.547	r = 0.531	r = 0.474
	p = —	p < 0.001	p < 0.001	p < 0.001
Childhood trauma		r = 1	r = 0.539	r = 0.419
		p = —	p < 0.001	p < 0.001
Mental pain			r = 1	r = 0.649
			p = —	p < 0.001

The results of Table 2 showed that, statistically, there was a significant relationship between object relations, childhood trauma, and mental pain with identity instability ($p < 0.05$). The direction of the relationship between all three predictor variables (object relations, childhood trauma, and mental pain) and the dependent variable, identity instability, was positive, indicating that an increase in each of the variables of object relations, childhood trauma, and mental pain was associated with an increase in identity instability.

According to Table 1, the skewness and kurtosis indices of none of the variables fell outside the (−2, 2) range; therefore, they can be considered normal or approximately normal. Before conducting path analysis, the normality of the criterion variable (identity instability), the independence of errors, and multicollinearity among the predictor variables were examined. The results of the Kolmogorov–Smirnov test (statistic = 0.29, $p > 0.05$) indicated that the identity instability variable was normally distributed. Furthermore, the Durbin–Watson value for the predictor variables in predicting identity instability (1.59) indicated independence of errors. In addition, in the present study, the variance inflation factor (VIF) for all variables was less than 10, and the absence of multicollinearity was confirmed. Missing data were identified and corrected using the "Missing Value Analysis" procedure in SPSS. Boxplots were used to identify univariate outliers, and the Mahalanobis distance index was used to identify multivariate outliers. To test the proposed model, that is, to examine the mediating role of mental pain, path analysis was used. Figure 1 presents the empirical model in the standardized coefficient state.

igure 1

Structural Model With Estimated Path Coefficients



JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

Figure 1 shows the empirical model in the standardized coefficient state, which reflects the magnitude of the effects of the variables on one another. Examination of the empirical model showed that all relationships among the latent constructs were statistically significant ($p < 0.05$). Examination of the direct effects of the variables indicated that all three variables—object relations, childhood trauma, and mental pain—had direct effects on identity instability ($p < 0.05$). Examination of the magnitude of the coefficients showed that the strongest effect on identity instability was that of mental pain, with a standardized coefficient of 0.50. The coefficient of determination for the dependent variable identity instability was 0.51, indicating that object relations, childhood trauma, and mental pain together accounted for 51% of the variance in identity instability, which reflects acceptable explanatory power and an appropriate empirical model.

Table 3

Model fit indices

Index	Acceptable value	Obtained value
GFI (Goodness-of-Fit Index)	> 0.90	0.92
RMSEA (Root Mean Square Error of Approximation)	< 0.08	0.069
CFI (Comparative Fit Index)	> 0.90	0.88
NFI (Normed Fit Index)	> 0.90	0.92
IFI (Incremental Fit Index)	> 0.90	0.92
AGFI (Adjusted Goodness-of-Fit Index)	> 0.90	0.93
PGFI (Parsimonious Goodness-of-Fit Index)	> 0.70	0.67
χ^2/df (Chi-square to degrees of freedom ratio)	$1 \leq \chi^2/df \leq 5$	2.84

Overall, by evaluating all the fit indices (Table 3), it can be inferred that none of the indices had weak or unacceptable values. Two fit indices, CFI and PGFI, had moderate values, and the remaining fit indices had desirable values. On this basis, it can be concluded that the empirical model enjoyed an adequate and acceptable fit, and the overall model was confirmed. The coefficient of determination of the model was 0.51, indicating acceptable explanatory power; the predictor variables, including object relations, childhood trauma, and mental pain, were able to explain 51% of the variance in the dependent variable identity instability. The significant direct and indirect paths between the research variables and identity instability are presented in Tables 4 and 5.

Table 4

Direct path coefficients of the effects of the variables and significance of the estimated parameters

Predictor variable	Criterion variable	Standardized coefficient (β)	Standard error (SE)	t statistic / C.R.	Significance level (p)
Childhood trauma	Identity instability	0.37	0.07	5.28	0.001
Object relations	Identity instability	0.35	0.05	7.09	0.001
Mental pain	Identity instability	0.65	0.15	4.27	0.001

As shown in Table 4, all variables whose direct paths to the criterion variable had t values greater than or less than ±1.96 had a significant effect ($p < 0.001$) on the criterion variable, and nonsignificant paths were removed from the model. According to the findings of the table, the path coefficients between childhood trauma and identity instability, object relations and identity instability, and mental pain and identity instability were all positive and significant ($p < 0.01$).

Table 5

Indirect path coefficients of the effects of the variables and significance of the estimated parameters

Predictor variable	Mediator	Criterion variable	Standardized coefficient (β)	Standard error (SE)	t statistic	Significance level (p)
Object relations	Mental pain	Identity instability	0.73	0.03	19.60	0.001
Childhood trauma	Mental pain	Identity instability	0.48	0.04	10.24	0.001

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

According to Table 5, all variables whose indirect paths to the criterion variable had t values greater than or less than ±1.96 had a significant effect ($p < 0.001$) on the criterion variable. The findings also showed that both indirect coefficients were significant. In other words, object relations and childhood trauma, through their effects on mental pain, indirectly influenced identity instability ($p < 0.01$).

4. Discussion

The present study examined a structural model linking adverse childhood experiences and relational disturbances to self-injurious behaviors through the mediating roles of identity diffusion and psychological pain in adolescents. The findings demonstrated that early relational adversity, including abuse, neglect, and emotional deprivation, exerted both direct and indirect effects on self-harm tendencies. These effects were primarily transmitted through elevated psychological pain and disruptions in identity coherence, highlighting the centrality of subjective suffering and self-structure in the emergence of self-injurious behaviors. Overall, the model exhibited satisfactory explanatory power, supporting a developmental–relational understanding of adolescent self-harm.

Consistent with the study hypotheses, adverse childhood experiences showed a significant positive association with psychological pain. This finding aligns with theoretical and empirical conceptualizations of mental pain as a core psychological consequence of early trauma, reflecting deep-seated feelings of emptiness, worthlessness, loss of control, and emotional fragmentation (Cassell, 1999; Orbach et al., 2003). Childhood maltreatment disrupts the development of internal safety and emotional containment, thereby increasing vulnerability to intense inner suffering when individuals encounter stressors during adolescence. Prior studies have similarly documented that exposure to abuse and neglect is strongly associated with heightened psychological distress and suicidal ideation across developmental stages (Bernstein et al., 2003; Jiaa & Lubetkin, 2020). The present findings extend this literature by demonstrating that psychological pain operates as a key mechanism translating early adversity into self-injurious behavior.

The results further indicated that relational disturbances were significantly associated with identity diffusion. Adolescents who reported experiences of emotional deprivation, social disconnection, and relational instability were more likely to exhibit fragmented self-representations and difficulty maintaining a coherent sense of identity. This finding is consistent with identity development theories emphasizing the role of secure relational contexts in facilitating self-integration (Waterman, 2020). From an object-relational perspective, disruptions in early and ongoing interpersonal bonds impede the internalization of stable representations of self and others, resulting in identity instability and emotional dysregulation (Timpano & Port, 2021; Wheeler & Bechler, 2021). The present study empirically supports these theoretical claims by demonstrating a direct pathway from relational disturbance to identity diffusion.

Importantly, identity diffusion emerged as a significant predictor of psychological pain. Adolescents with fragmented identities reported greater levels of inner suffering, suggesting that difficulties in self-coherence intensify emotional vulnerability. This finding corroborates prior research indicating that identity instability is associated with heightened emotional distress, maladaptive coping, and increased risk for self-harm (Nikousaft & Gharehbaghi, 2020). When adolescents are unable to integrate their experiences into a meaningful self-narrative, emotional experiences may become overwhelming and unmanageable, thereby contributing to psychological pain. These results underscore identity functioning as a crucial intrapsychic process linking developmental adversity to subjective suffering.

Psychological pain, in turn, showed a strong and direct association with self-injurious behaviors. This finding is consistent with extensive evidence positioning mental pain as a proximal antecedent of self-harm and suicidal ideation (Pompili et al., 2018). Self-injury may serve as a maladaptive strategy to externalize or momentarily alleviate unbearable inner distress. The present results are also in line with recent findings demonstrating the mediating role of psychological pain between identity-related vulnerabilities and self-injurious behaviors in adolescents (Shehdadian et al., 2024). Together, these findings reinforce the notion that self-harm is less a desire for death and more an attempt to regulate intolerable emotional states.

The indirect pathways identified in the structural model further clarify the developmental sequencing of these variables. Adverse childhood experiences and relational disturbances did not merely exert isolated effects; rather, their influence unfolded through identity diffusion and psychological pain. This layered process highlights the cumulative and interactive nature of developmental risk factors. Similar multi-step pathways have been observed in

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

studies linking bullying victimization, emotional dysregulation, and suicidal ideation (Sun et al., 2024; Veloso-Besio et al., 2023). The present study extends these findings by integrating early trauma, relational factors, and intrapsychic mechanisms into a unified explanatory framework.

Contextual and lifestyle factors may further exacerbate these vulnerabilities. Although not directly tested in the structural model, the findings should be interpreted within the broader psychosocial environment of contemporary adolescents. Previous research has demonstrated that excessive screen time, social isolation, and exposure to online stressors amplify emotional distress and self-harm risk, particularly among adolescents with preexisting vulnerabilities (Alves et al., 2025; González-Arrimada et al., 2025). Social deprivation, whether due to relational neglect or contextual constraints, compounds psychological pain and undermines identity development (Orben et al., 2020). The present findings are therefore consistent with a growing body of literature emphasizing the interaction between developmental risk factors and modern environmental stressors.

The results also carry implications for understanding self-harm stigma and help-seeking behaviors. Adolescents experiencing intense psychological pain and identity confusion may be less likely to articulate their distress verbally, increasing reliance on self-injury as a communicative or regulatory act. Stigma surrounding self-harm further reinforces secrecy and isolation, delaying intervention and worsening outcomes (Aggarwal et al., 2021). The present findings suggest that addressing internal suffering and identity-related distress may be essential for reducing stigma and fostering engagement with mental health services.

5. Conclusion

Finally, the study's findings are consistent with international evidence indicating elevated rates of self-harm and suicidal ideation among adolescents and young adults across clinical and non-clinical populations (García-Iglesias et al., 2022; Glenn et al., 2020). The observed pathways are not culture-bound but reflect universal developmental processes shaped by relational experiences and internal psychological organization. By empirically validating these mechanisms, the present study contributes to a more nuanced and integrative understanding of adolescent self-injury.

6. Limitations & Suggestions

Several limitations should be considered when interpreting the findings. The cross-sectional design precludes causal inferences regarding the directionality of relationships among variables. Self-report measures may also be subject to recall bias and social desirability effects, particularly in assessing sensitive experiences such as childhood trauma and self-injury. Additionally, the sample characteristics may limit generalizability to other cultural or clinical populations.

Future studies should employ longitudinal designs to clarify developmental trajectories and causal pathways among adverse childhood experiences, identity functioning, psychological pain, and self-harm. Incorporating multi-informant assessments and clinical interviews would strengthen measurement validity. Further research may also explore potential protective factors, such as resilience, social support, and therapeutic interventions, that could buffer the effects of psychological pain and identity diffusion.

The findings highlight the importance of early identification of relational trauma and identity-related distress in adolescents. Mental health interventions should prioritize addressing psychological pain and fostering identity coherence rather than focusing solely on symptom reduction. Trauma-informed, developmentally sensitive approaches that integrate relational repair, emotional regulation, and identity consolidation may be particularly effective in preventing and reducing self-injurious behaviors.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

F.Z.M. conceptualized the study, formulated the theoretical model, and led the research design focusing on object relations, childhood trauma, and identity instability. M.M. contributed to methodological planning, supervised the structural equation modeling procedures, and guided the statistical analysis and interpretation of mediating effects. M.J. was responsible for data collection coordination, instrument selection, data preparation, and initial statistical analyses, and also contributed to drafting and critically revising the manuscript. All authors collaboratively interpreted the findings, reviewed the final manuscript, approved its submission, and take full responsibility for the integrity and accuracy of the work.

References

Aggarwal, S., Borschmann, R., & Patton, G. C. (2021). Tackling stigma in self-harm and suicide in the young. *The Lancet Public Health*, *6*(1), e6-e7. https://doi.org/10.1016/S2468-2667(20)30259-0

Alves, M. I., Dias Junior, S. A., Martins, T., Felipe, A. O. B., Freitas, P. S., & Moreira, D. S. (2025). The relationship between excessive screen time, self-harm, and suicidal behavior in adolescents during the COVID-19 pandemic: An integrative literature review. *Journal of Child and Adolescent Psychiatric Nursing*, *38*(2), e70015. https://doi.org/10.1111/jcap.70015

Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child abuse & neglect*, *27*(2), 169-190. https://doi.org/10.1016/S0145-2134(02)00541-0

Cassell, E. J. (1999). Diagnosing suffering: a perspective. *Annals of Internal Medicine*, *131*(7), 531-534. https://doi.org/10.7326/0003-4819-131-7-199910050-00009

García-Iglesias, J. J., Gómez-Salgado, J., Fernández-Carrasco, F. J., Rodríguez-Díaz, L., Vázquez-Lara, J. M., Prieto-Callejero, B., & Allande-Cussó, R. (2022). Suicidal ideation and suicide attempts in healthcare professionals during the COVID-19 pandemic: A systematic review. *Frontiers in Public Health*, *10*, 1043216. https://doi.org/10.3389/fpubh.2022.1043216

Glenn, C. R., Kleiman, E. M., Kellerman, J., Pollak, O., Cha, C. B., Esposito, E. C., Porter, A. C., Wyman, P. A., & Boatman, A. E. (2020). Annual Research Review: A meta-analytic review of worldwide suicide rates in adolescents. *Journal of Child Psychology and Psychiatry*, *61*(3), 294-308. https://doi.org/10.1111/jcpp.13106

González-Arrimada, A., Martínez, R., & López, M. (2025). Lifestyle habits, problem behaviors, and non-suicidal self-injury in adolescents: A systematic review and meta-analysis. *Child and Adolescent Social Work Journal*, *42*(1), 257-273. https://link.springer.com/article/10.1007/s40894-025-00257-3

Jiaa, H., & Lubetkin, E. I. (2020). Impact of adverse childhood experiences on quality-adjusted life expectancy in the U.S. population. *Child abuse & neglect*, *102*, 104418. https://doi.org/10.1016/j.chiabu.2020.104418

Klifto, C. S., Lavery, J. A., Gold, H. T., Milone, M. T., Karia, R., Palusci, V., & Chu, A. (2020). Pediatric Fingertip Injuries: Association With Child Abuse. *Journal of Hand Surgery Global Online*, *2*, 31-34. https://doi.org/10.1016/j.jhsg.2019.09.001

Nikousaft, Z., & Gharehbaghi, F. (2020). The moderating and mediating role of ego strength in the relationship between object relations and identity statuses in university students. *Clinical and Personality Psychology*, *18*(2), 109-118. https://cpap.shahed.ac.ir/article_3228.html?lang=en

Orbach, I., Mikulincer, M., Sirota, P., & Gilboa-Schechtman, E. (2003). Mental pain: A multidimensional operationalization and definition. *Suicide Life Threatening Behavior*, *33*(3), 219-230. https://doi.org/10.1521/suli.33.3.219.23219

Orben, A., Tomova, L., & Blakemore, S. J. (2020). The effects of social deprivation on adolescent development and mental health. *The Lancet Child & Adolescent Health*, *4*(8), 634-640. https://doi.org/10.1016/S2352-4642(20)30186-3

Pompili, M., Girardi, P., Ruberto, A., & Tatarelli, R. (2018). Suicide in borderline personality disorder: A meta-analysis. *Nordic journal of psychiatry*, *62*(4), 319-324. https://doi.org/10.1080/08039480500320025

Shehdadian, V., Golshani, F., & Baghdasarians, A. (2024). The mediating role of psychological pain in the relationship between coherent self-knowledge and self-injurious behaviors in adolescents. *Royesh-e Psychology*, *13*(7), 101-110. https://frooyesh.ir/browse.php?a_id=5654&sid=1&slc_lang=en

Sun, J., Ban, Y., & Liu, J. (2024). Relationship between bullying victimization and suicide ideation among Chinese adolescents: A moderated chain mediation model. *Children and Youth Services Review*, *156*, 107304. https://doi.org/10.1016/j.childyouth.2023.107304

Timpano, K. R., & Port, J. H. (2021). Object attachment and emotion (Dys)regulation across development and clinical populations. *Current opinion in psychology*, *39*, 109-114. https://doi.org/10.1016/j.copsyc.2020.08.013

Valladares-Garrido, D., Zila-Velasque, J. P., Santander-Hernández, F. M., Guevara-Morales, M. A., Morocho-Alburqueque, N., Failoc-Rojas, V. E., Pereira-Victorio, C. J., Vera-Ponce, V. J., León-Figueroa, D. A., & Valladares-Garrido, M. J. (2023). Association between Love Breakup and Suicidal Ideation in Peruvian Medical Students: A Cross-Sectional Study during the COVID-19 Pandemic. *Research Square*, *3*, 3085268. https://doi.org/10.21203/rs.3.rs-3085268/v1

Veloso-Besio, C., Cuadra-Peralta, A., Gallardo-Peralta, L., Cuadra-Fernandez, P., Quiroz, P. T., & Troncoso, N. V. (2023). The prevalence of suicide attempt and suicidal ideation and its relationship with aggression and bullying in Chilean adolescents. *Frontiers in psychology*, *14*, 1133916. https://doi.org/10.3389/fpsyg.2023.1133916

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526

Waterman, A. S. (2020). "Now what do I do?": Toward a conceptual understanding of the effects of traumatic events on identity functioning. *Journal of adolescence*, *79*, 59-69. https://doi.org/10.1016/j.adolescence.2019.11.005

Wheeler, S. C., & Bechler, C. J. (2021). Objects and self-identity. *Current opinion in psychology*, *39*, 6-11. https://doi.org/10.1016/j.copsyc.2020.07.013

JAYPS Adolescent and Youth Psychological Studies
E-ISSN: 2981-2526