

# The Structural Model of Children's Behavioral Problems Based on Mothers' Adverse Childhood Experiences with the Mediating Role of Mothers' Parenting Styles

Mina. Kejani<sup>1</sup>, Mojtaba. Ansari Shahidi<sup>2\*</sup>, Salar. Faramarzi<sup>3</sup>, Mostafa. Khanzadeh<sup>4</sup>

1 Department of Psychology, Na.C., Islamic Azad University, Najafabad, Iran

2 Department of Health Psychology, Faculty of Medicine, Na.C., Islamic Azad University, Najafabad, Iran

3 Department of Psychology and Education of Children with Special Needs, Faculty of Education and Psychology, University of Isfahan, Isfahan, Iran

4 Department of Psychology, Feizoleslam Non-profit Higher Education Institute, Khomeynishahr, Iran

\*Correspondence: Mojtaba.ansari@phu.iaun.ac.ir

Article type:  
Original Research

Article history:  
Received 14 March 2025  
Revised 23 May 2025  
Accepted 26 May 2025  
Published online 01 June 2025

## ABSTRACT

The present study was conducted with the aim of designing and fitting a structural model to explain children's behavioral problems based on mothers' adverse childhood experiences, taking into account the mediating role of mothers' parenting styles. Considering the intergenerational approach in explaining children's behavioral disorders, this study examined the direct and indirect effects of mothers' adverse childhood experiences on their children's behavioral problems. The statistical population consisted of all mothers living in Isfahan with children aged 6 to 12 years. Sampling was carried out through convenience sampling, and after eliminating outliers, the final sample included 323 participants. To collect data, three validated and Persian-adapted instruments were used: the International Questionnaire of Adverse Childhood Experiences (ACE-IQ), the Baumrind Parenting Styles Questionnaire, and the Achenbach Child Behavior Checklist (CBCL). Data were analyzed using structural equation modeling with SPSS-24 and AMOS-24 software. The results showed that mothers' adverse childhood experiences positively and significantly predicted children's behavioral problems. These experiences had a significant relationship with mothers' authoritarian parenting style, while their relationships with authoritative and permissive parenting styles were not significant. The authoritarian style also had a positive and significant effect on the occurrence of children's behavioral problems. Analysis of indirect pathways indicated that the authoritarian style played a significant mediating role in the relationship between mothers' adverse experiences and children's internalizing and externalizing behavioral problems. In contrast, authoritative and permissive parenting styles did not show significant effects either in direct or indirect pathways. The findings emphasize the role of the authoritarian parenting style as a psychological mechanism for the intergenerational transmission of harm and highlight the necessity of designing preventive and targeted interventions aimed at repairing parents' traumatic experiences and promoting supportive parenting practices.

**Keywords:** Adverse childhood experiences, parenting styles, children's behavioral problems, structural equation modeling, intergenerational transmission of harm

## How to cite this article:

Kejani, M., Ansari Shahidi, M., Faramarzi, S., & Khanzadeh, M. (2025). The Structural Model of Children's Behavioral Problems Based on Mothers' Adverse Childhood Experiences with the Mediating Role of Mothers' Parenting Styles. *Mental Health and Lifestyle Journal*, 3(2), 1-17. <https://doi.org/10.61838/mhlj.3.2.14>

## Introduction

Childhood trauma is increasingly recognized as one of the most pervasive determinants of mental health, behavioral development, and intergenerational family functioning. The concept of adverse childhood experiences (ACEs) encompasses a wide range of exposures, such as emotional neglect, physical abuse, sexual abuse, parental dysfunction, and exposure to community or family violence. Research consistently shows that early adverse experiences have profound and enduring consequences on psychological adjustment, interpersonal relationships, and behavioral outcomes, particularly when such experiences remain unresolved and are transmitted intergenerationally through parenting behaviors (1, 2). In light of the evidence linking ACEs to psychopathology and maladaptive relational patterns, understanding the pathways by which maternal childhood trauma shapes children's behavioral problems has become a critical area of investigation.

Childhood trauma is not only a direct predictor of maladaptive outcomes in adulthood but also exerts influence through mediating and moderating processes, such as emotional dysregulation, reflective functioning, and parenting styles (3, 4). Parents who have experienced early maltreatment are at increased risk of burnout, compromised reflective functioning, and difficulty in emotion regulation, all of which may limit their capacity to engage in supportive caregiving (3). Similarly, difficulties in mentalizing and attachment security, often rooted in childhood trauma, can impair the ability to respond sensitively to children's needs, especially during the transition to parenthood (4). The intergenerational cycle of trauma transmission is therefore an important lens through which to view child behavioral problems.

Evidence from large-scale meta-analyses underscores the long-term impact of childhood trauma on adult mental disorders. A systematic review of longitudinal cohort studies demonstrated that individuals exposed to early adversity were more likely to develop depression, anxiety, psychosis, and personality disorders later in life (1). Neurobiological studies have also highlighted the role of inflammation and white matter alterations as mechanisms through which trauma exposure contributes to the development of mood disorders (5, 6). Such findings reveal that childhood trauma leaves biological, psychological, and relational imprints that persist across the lifespan.

At the interpersonal level, trauma exposure is closely tied to insecure attachment, distorted interpersonal schemas, and maladaptive parenting practices (7, 8). For instance, machine learning approaches have shown robust associations between early trauma, dysfunctional parental bonding, and antisocial personality traits in adulthood (7). In a similar vein, perfectionism and narcissistic tendencies have been found to mediate the relationship between early trauma, family functioning, and perceived parenting styles (8). These studies suggest that unresolved trauma manifests in cognitive, emotional, and relational processes that, in turn, shape how individuals engage with their own children.

Parenting practices constitute a central mechanism by which intergenerational transmission of trauma occurs. Authoritarian, permissive, and authoritative styles differentially influence children's psychological outcomes. Cross-national research indicates that authoritative parenting is consistently associated with greater life satisfaction and resilience among children, even in the presence of adversity (9). In contrast, authoritarian and neglectful parenting, often linked to unresolved parental trauma, exacerbate behavioral and emotional problems in children. Observational studies further demonstrate that maternal childhood

trauma predicts less sensitive caregiving behaviors during infancy, which may predispose children to regulatory and attachment difficulties (10).

The link between maternal ACEs and child behavior has been supported by multiple empirical investigations. Studies reveal that children of mothers with unresolved trauma histories exhibit greater internalizing and externalizing behavioral problems (11, 12). In particular, internalizing symptoms such as anxiety and depression have been associated with both direct maternal trauma exposure and indirect processes involving maladaptive parenting (13). Externalizing behaviors, including aggression and rule-breaking, are similarly elevated among children whose parents experienced maltreatment and use harsh or inconsistent parenting strategies (12). These findings highlight the dual pathways of trauma transmission—both biological and psychosocial.

The relationship between trauma and child outcomes is also evident in clinical contexts. Research has shown that parental trauma history contributes to parental burnout, difficulties in emotion regulation, and self-criticism, all of which increase the likelihood of maladaptive caregiving and child self-harm behaviors (14, 15). For example, female adolescents with trauma exposure are at heightened risk for nonsuicidal self-injury, mediated by cognitive distortions and diminished cognitive flexibility (15). Similarly, experiences of trauma-related guilt and shame among college students were found to predict nonsuicidal self-injury, reflecting the long-lasting emotional sequelae of early maltreatment (16). Such outcomes underscore the salience of trauma-informed approaches to both parenting interventions and child mental health care.

Borderline personality disorder (BPD) and other severe psychopathologies provide further insight into the developmental impact of early trauma. Emotional maltreatment, in particular, has been linked to difficulties differentiating intrapsychic symptoms from behavioral expressions in BPD (17). Schema theory research also demonstrates that maladaptive modes developed in response to abuse are central to the personality pathology observed in both borderline and antisocial disorders (18). These findings highlight the continuity between childhood experiences and adult symptomatology, offering a framework for understanding how parental psychopathology, rooted in trauma, may impair effective caregiving.

Cultural contexts further shape the expression and consequences of trauma. For example, studies in Asian populations have shown that childhood trauma interacts with family conflict and parental problem drinking to predict self-harm and problematic alcohol use in offspring (19, 20). In obsessive-compulsive disorder populations, trauma has been found to exacerbate perceived stress and maladaptive personality traits (21). Cross-cultural findings thus demonstrate that while trauma has universal consequences, the specific pathways of transmission may vary depending on sociocultural and familial dynamics.

Recent qualitative research also emphasizes the resilience of families in the face of intergenerational trauma. For example, sibling relationships may serve as protective factors, enabling adaptation and resistance to the perpetuation of trauma effects across generations (22). Similarly, interventions designed to address trauma at the family level—such as parent-child interaction therapy (PCIT)—have shown promise in reducing maltreatment and improving behavioral outcomes for children (12). These insights suggest that, despite the pervasive risks associated with ACEs, protective processes and targeted interventions can mitigate intergenerational harm.

The clinical and applied implications of this body of research are significant. Programs integrating trauma-informed care, parental emotional support, and resilience-building strategies demonstrate

effectiveness in reducing parental psychological distress. For example, structured nursing interventions using SMART (Specific, Measurable, Achievable, Relevant, Timed) goals reduced anxiety, depression, and post-traumatic stress in parents of children with serious illnesses (23). Interventions that enhance emotion regulation strategies have also been shown to buffer the negative effects of childhood maltreatment on marital satisfaction and family functioning during the transition to parenthood (24). These findings highlight the potential of psychoeducational and therapeutic efforts to interrupt the transmission of trauma.

From a developmental psychopathology perspective, the study of trauma transmission must account for both risk and resilience factors. Maladaptive attribution styles, internalized shame, and distorted cognitive patterns contribute to suicidal ideation in traumatized individuals (25). Conversely, resilience factors such as effective parental emotional socialization buffer adolescents against the development of internalizing problems following trauma exposure (13). Adjustment outcomes among transitioning students further illustrate the importance of psychological well-being indices in mediating stress and adaptation processes (26). Together, these findings point to the multifaceted nature of trauma's impact, requiring models that incorporate biological, psychological, social, and cultural determinants.

Despite the breadth of evidence, there remains a gap in understanding how specific parenting styles mediate the relationship between maternal ACEs and child behavioral problems in non-Western populations. Most studies have been conducted in Western cultural contexts, with relatively limited attention to cross-cultural variations in parenting and child development. Moreover, while prior research has established strong associations between maternal trauma and child outcomes, the precise mediating mechanisms—particularly authoritarian and permissive parenting styles—require further empirical clarification.

Given this context, the present study was designed to test a structural model of children's behavioral problems based on mothers' adverse childhood experiences, with the mediating role of permissive, authoritarian, and authoritative parenting styles.

## Methods and Materials

### *Study Design and Participants*

The present research design was correlational and based on structural equation modeling. The statistical population of this study consisted of all mothers living in Isfahan who had children aged 6 to 12 years. According to Kline's (2012) rule, which requires considering 10 to 20 participants per observed variable in modeling studies, in this study, 330 mothers with children aged 6 to 12 years in Isfahan responded to the research questionnaires. After removing seven outlier cases, the final sample size was reduced to 323 participants. These individuals were selected using convenience sampling. Data were collected using both written and online methods (via Porsline). Considering the professional requirements of research, which necessitated the presence and availability of the researcher during questionnaire completion by mothers, an executive team of psychologists familiar with the research objectives, questionnaire content, and implementation process was formed. Access to participants was carried out through three pathways: (1) eligible mothers available to the researcher and the team (such as relatives, friends, neighbors, and local residents), (2) the researcher's clinical clients, and (3) mothers of preschool and elementary school students. In the second pathway, to create motivation, appreciation, and adhere to ethical principles, mothers who

agreed to participate were given a 10% discount. In the third pathway, after negotiation and coordination with the administrators of collaborating educational centers—including Ofogh Preschool (Shahin Shahr), Ofogh Girls' Primary School (Shahin Shahr), Negin Behesht Preschool (Isfahan), Roshd Bartar Preschool (Isfahan), Golban Khord Boys' Preschool and Primary School (Isfahan), Mahad School Complex (Sepahan Shahr), and Nahal Danesh (Shahin Shahr)—free lectures were held for parents on topics related to parenting and sexual education. In all cases, parents present at the beginning of each session were informed about the research objectives, the method of group data analysis, and confidentiality assurances. Afterwards, the questionnaire or its link was provided, and parents were given 30 minutes to complete it. Parents selected their preferred method of completion. It is noteworthy that in all stages of the research, questionnaire completion was carried out with informed consent and adherence to ethical principles. As previously mentioned, after removing outlier data, the final number of participants reached 323.

### *Data Collection*

International Questionnaire of Adverse Childhood Experiences (ACE-IQ): Given the growing importance of adverse childhood experiences, the World Health Organization developed and published an international questionnaire in this regard in 2011. Since then, researchers in various countries, both independently and in collaboration with institutions such as UNICEF, have used and examined this questionnaire according to their cultural and social conditions (World Health Organization, 2018, 2021; Gill, 2023). In line with this, the researchers of the present study translated this tool into Persian for the first time and assessed its validity and reliability. The WHO ACE-IQ questions are classified into 13 categories, including: physical abuse, sexual abuse, emotional abuse, physical and emotional neglect, living with family members with mental illness or suicidal tendencies, living with family members who have been imprisoned, witnessing violence against family members, major family dysfunctions such as substance or alcohol abuse, single or absent parenting, parental separation or divorce, bullying, community violence, and collective violence (World Health Organization, 2018). In the Persian-translated and localized version used in this study, construct validity and internal consistency reliability of the subscales were evaluated. Cronbach's alpha coefficients were as follows: physical abuse (0.67), sexual touch abuse (0.84), emotional abuse (0.60), physical neglect (0.60), emotional neglect (0.61), witnessing violence against family members (0.78), unhealthy family environment (0.60), bullying (0.62), community violence (0.81), and collective violence (0.71). The overall Cronbach's alpha for the scale was 0.87, indicating acceptable reliability and sufficient psychometric adequacy of the tool for assessing mothers' adverse childhood experiences in the Iranian sample.

Baumrind Parenting Styles Questionnaire (1973): The Baumrind Parenting Styles Questionnaire was designed to measure parental child-rearing methods and encompasses three main parenting styles: authoritative, authoritarian, and permissive. The questionnaire was first developed by Baumrind (1967) based on extensive theoretical and empirical studies. This tool consists of 30 items that assess the three aforementioned styles. Buri (1991) calculated the reliability of this questionnaire using the test-retest method and reported the following values: permissive (0.81), authoritarian (0.86), and authoritative (0.78) for mothers, and permissive (0.77), authoritarian (0.85), and authoritative (0.92) for fathers. Scoring is based on a 5-point Likert scale. In Iran, Esfandiari (1995) translated and revised the original questionnaire at the Iranian Institute of Psychiatry. To evaluate face validity, 10 experts in psychology and psychiatry

(including two Ph.D. psychologists, one psychiatrist, two M.A. psychologists, two M.A. students, and three B.A. psychologists) were asked to review the validity of the items and provide revision suggestions if necessary. Findings confirmed the face validity of the questionnaire. In the localized Persian version used in this study, internal consistency reliability (Cronbach's alpha) was 0.74 for permissive parenting, 0.85 for authoritarian parenting, and 0.82 for authoritative parenting, indicating high reliability of the instrument in the Iranian sample.

Achenbach Child Behavior Checklist (CBCL), Parent Version (1991): The Child Behavior Checklist is one of the parallel forms of the Achenbach System of Empirically Based Assessment (ASEBA) and is designed to assess behavioral problems in children and adolescents across eight main domains: anxiety/depression, withdrawal/depression, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior. Among these, rule-breaking and aggressive behavior constitute the two second-order factors of externalizing problems. This tool is designed to evaluate emotional-behavioral problems, competencies, and academic and social skills of children aged 6 to 18 years from the perspective of parents, and completion typically takes 20 to 25 minutes. The questionnaire contains 115 items about various child behaviors, scored on a 3-point Likert scale ranging from 0 to 2 (0 = not true, 1 = somewhat or sometimes true, 2 = very true or often true). Additionally, CBCL provides three overall scores: (1) internalizing problems, (2) externalizing problems, and (3) total problems. In the present study, only the first two components were used, reducing the number of items to 62. The internalizing problems scale includes the subscales withdrawal/depression (WD), somatic complaints (SC), and anxiety/depression (AD), while the externalizing problems scale includes rule-breaking behavior (RB) and aggressive behavior (AG). The CBCL is completed by one parent or another individual familiar with the child's abilities and behavioral problems. It can be used both as a self-report and interview-based tool, and is useful for assessing behavioral changes over time or after therapeutic interventions. Overall reliability coefficients of the tool have been reported as 0.97 (Cronbach's alpha) and 0.94 (test-retest reliability). Content validity (based on logical item selection and classical analysis), criterion validity (through comparison with psychiatric interviews and the CSI-4 scale), and construct validity (by examining interscale relationships and group differentiation) have been rated satisfactory (Achenbach & Rescorla, 2007). This instrument was first translated and standardized in Persian by Tehrani-Doost and colleagues (2002). In the Persian version used in this study, internal consistency reliabilities (Cronbach's alpha) for the subscales were: anxiety/depression (0.81), somatic complaints (0.82), withdrawal/depression (0.70), rule-breaking (0.71), aggression (0.87), internalizing problems (0.85), and externalizing problems (0.86). The overall Cronbach's alpha was 0.93, indicating excellent reliability of the tool for assessing children's behavioral problems from the parents' perspective in the Iranian sample.

### *Data Analysis*

In this study, to analyze the data and test the research hypotheses, the structural equation modeling approach was employed. Model analysis followed the two-step procedure of Anderson and Gerbing (1988). In the first step, confirmatory factor analysis was used to evaluate model adequacy, measurement, and the relationships between observed and latent variables. In the second step, the conceptual model of the study was tested using the maximum likelihood estimation method. Moreover, to assess the significance of indirect



effects in the model, the bootstrap resampling method was applied to evaluate the accuracy of estimates and related confidence intervals.

## Findings and Results

Descriptive findings showed that the mean age of the participants in the study sample was 36.62 years with a standard deviation of 6.67 years. Furthermore, the mean duration of their marriage was 22.34 years with a standard deviation of 5.54 years, and the mean age of mothers at the birth of their first child was 25.95 years with a standard deviation of 4.69 years. Examination of children's demographic characteristics indicated that, of the total number of children, 168 (52%) were boys and 155 (48%) were girls. The mean age of children in the entire sample was 8.24 years with a standard deviation of 2.52 years. In terms of educational status, 106 children (32.8%) were in preschool, 205 (63.5%) were in elementary school, and 12 children (3.7%) were not attending school.

The results of the descriptive analysis of the research variables—including mean, standard deviation, minimum and maximum scores of each variable, as well as indices of normality such as skewness and kurtosis—were calculated and reported in Table 1.

**Table 1. Descriptive Characteristics and Normality Indices of the Research Variables**

Variable	Component	M	SD	Min	Max	Skewness	Kurtosis
Mothers' Adverse Childhood Experiences	Emotional abuse	2.09	1.62	0	6	0.565	-0.211
	Physical abuse	1.25	1.52	0	6	1.182	-0.861
	Sexual touch abuse	1.10	1.92	0	9	0.561	-1.557
	Witnessing family violence	3.59	2.58	0	9	0.322	-0.840
	Dysfunctional family environment	0.39	0.75	0	4	1.055	-0.856
	Emotional neglect	3.12	1.84	0	8	0.440	-0.189
	Physical neglect	0.59	1.27	0	6	1.254	-0.379
	Bullying	1.38	1.65	0	6	0.930	-0.259
	Community violence	3.52	2.54	0	9	0.233	-0.933
	Collective violence	0.66	1.18	0	6	0.811	-1.313
	Total score	17.73	10.42	0	57	0.792	-0.507
Parenting Styles	Permissive	29.27	11.5	17	45	0.127	-0.284
	Authoritarian	32.22	6.23	10	44	0.434	0.080
	Authoritative	41.66	4.24	22	50	-0.528	1.301
Child Behavioral Problems	Anxiety/Depression	6.71	4.56	0	24	1.015	0.915
	Somatic complaints	11.40	2.92	0	14	-1.522	2.074
	Withdrawal/Depression	2.07	2.31	0	10	1.307	1.186
	Internalizing problems	11.46	8.60	0	42	1.148	1.027
	Rule-breaking	3.33	3.08	0	16	1.308	1.732
	Aggression	8.31	5.73	0	30	1.096	1.135
	Externalizing problems	11.64	8.25	0	43	1.143	1.179
	Total score	23.11	15.01	0	75	1.075	0.976

The results in Table 1 indicated that the mean scores of the subscales of “mothers’ adverse childhood experiences” were in the low to moderate range, with the highest means corresponding to “witnessing family violence” and “community violence.” Regarding the “parenting styles” variable, the authoritative style, with a mean of 41.66, was the most prevalent among respondents. For the “child behavioral problems” variable, the highest means were related to the subscales of “internalizing problems” and “externalizing problems.” Skewness and kurtosis indices of all variables were within the acceptable range ( $\pm 2$ ), indicating a relatively normal distribution of the data. Overall, these results confirmed the appropriate quality of the data,

adequacy of variable distributions, and the availability of necessary conditions for further structural modeling analyses.

Before testing the model and examining its results, to gain insight into the relationships among the model variables, correlations of the main variables were analyzed using Pearson's correlation coefficient. Correlation coefficients between the main variables of the model—namely mothers' adverse childhood experiences, permissive, authoritarian, and authoritative parenting styles, and children's behavioral problems—are presented in Table 2.

**Table 2. Correlation Coefficients Between Main Research Variables**

Variables	1	2	3	4	5
1. Mothers' adverse childhood experiences	1				
2. Permissive parenting style	-0.087	1			
3. Authoritarian parenting style	0.154**	0.100	1		
4. Authoritative parenting style	-0.369**	0.007	0.157**	1	
5. Child behavioral problems	-0.063	-0.005	0.265**	0.382**	1

Note. \* $p < 0.05$ , \*\* $p < 0.01$ .

The results of Table 2 indicate that there were statistically significant relationships among some of the main research variables. Mothers' adverse childhood experiences were positively associated with the authoritarian parenting style ( $r = 0.154$ ,  $p < 0.01$ ) and negatively associated with the authoritative parenting style ( $r = -0.369$ ,  $p < 0.01$ ). Moreover, the authoritarian parenting style was positively and significantly correlated with child behavioral problems ( $r = 0.265$ ,  $p < 0.01$ ). While the authoritative parenting style showed a negative correlation with child behavioral problems ( $r = -0.063$ ), this relationship was not statistically significant. The permissive parenting style did not show significant correlations with any other variables, except for its correlation with the authoritarian style ( $r = 0.100$ ), which was low and non-significant. The overall pattern of correlations supported the presence of links between mothers' early adverse experiences, parenting styles, and child behavioral problems, thereby providing a foundation for further examination through structural modeling.

Additionally, multicollinearity among predictor variables in the model was assessed using tolerance and variance inflation factor (VIF) statistics. The results showed that the tolerance value for adverse childhood experiences was 0.915, for permissive parenting style 0.872, for authoritarian parenting style 0.788, and for authoritative parenting style 0.818. The VIF values were 1.093 for adverse childhood experiences, 1.127 for permissive parenting style, 1.270 for authoritarian parenting style, and 1.222 for authoritative parenting style. Based on these results, none of the predictor variables suffered from multicollinearity problems. Tolerance values for all variables were above 0.10, and VIF values were below 2, whereas according to common criteria, tolerance values below 0.10 and VIF values above 10 are considered indicators of severe multicollinearity. Therefore, the obtained values indicated that there was no significant linear overlap among the predictor variables, and the assumption of variable independence required for structural equation modeling was met.

In general, the results presented in this section indicate that the fundamental assumptions required for structural equation modeling—including reliability of instruments, normality of observed variable distributions, absence of multicollinearity among predictor variables, and preliminary examination of correlations between variables—were all satisfied.



To examine and test the structural model of children's behavioral problems based on mothers' adverse childhood experiences, with the mediating role of permissive, authoritarian, and authoritative parenting styles, the two-step approach proposed by Anderson and Gerbing (1988) was used. In the first stage, the measurement model was examined through confirmatory factor analysis (CFA) to specify the relationships between the observed variables and the latent constructs and to assess the initial model fit. This stage was carried out to ensure the adequacy and validity of the conceptual constructs in the model. In the second stage, the full structural model of the study, which included the causal relationships among latent variables, was tested simultaneously with the measurement model (Figure 1) using structural equation modeling (SEM). The results of this analysis are presented in Table 3.

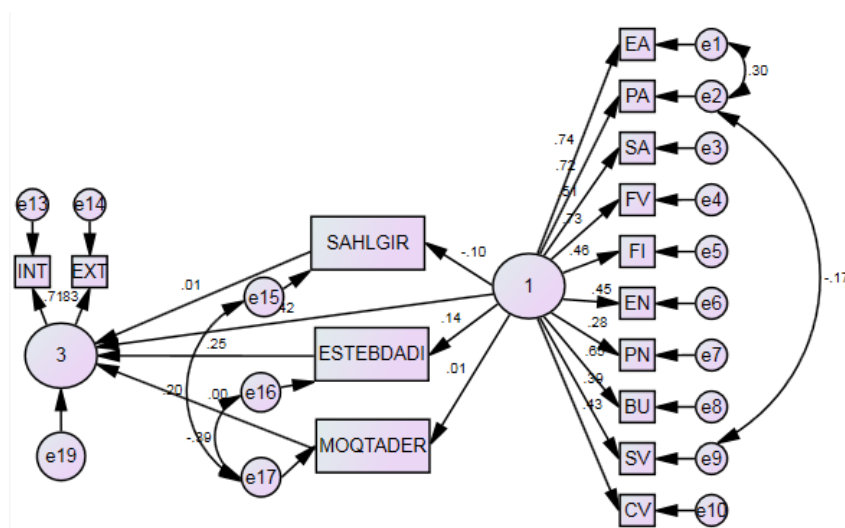
**Table 3. Fit Indices for Confirmatory Factor Analysis of the Final Research Model**

Fit index	Acceptable range	Good range	Excellent range	Observed value	Fit result
$\chi^2$ (df)	$\chi^2/\text{df} < 5$	$\chi^2/\text{df} < 3$	$\chi^2/\text{df} < 2$	165.99 (82)	Good to excellent
p-value $\chi^2$ test	—	—	—	0.001	—
$\chi^2/\text{df}$ ratio	$< 5$	$< 3$	$< 2$	2.024	Good
RMSEA	$< 0.10$	$< 0.08$	$< 0.05$	0.056	Good
SRMR	$< 0.10$	$< 0.08$	$< 0.05$	0.053	Good
CFI	$> 0.80$	$> 0.90$	$> 0.95$	0.923	Good
NFI	$> 0.80$	$> 0.90$	$> 0.95$	0.861	Acceptable
TLI	$> 0.80$	$> 0.90$	$> 0.95$	0.902	Good
GFI	$> 0.80$	$> 0.90$	$> 0.95$	0.937	Good
AGFI	$> 0.80$	$> 0.90$	$> 0.95$	0.908	Good

As shown in Table 3, the goodness-of-fit indices for the final model were all within acceptable to good ranges, indicating that the model had a desirable fit with the data. The chi-square statistic ( $\chi^2 = 165.99$ ,  $\text{df} = 82$ ) with a ratio of 2.024 was below the criterion of 3, suggesting good to excellent fit. The significance level of the chi-square test ( $p = 0.001$ ) was expected given the sample size. RMSEA = 0.056 and SRMR = 0.053 were in the “good” range, suggesting a minor difference between the observed and estimated covariance matrices. Comparative indices such as CFI = 0.923, TLI = 0.902, and NFI = 0.861 were in the good to acceptable ranges, further supporting appropriate structural fit. GFI = 0.937 and AGFI = 0.908 were also reported in the good range, indicating satisfactory alignment of the model with the data (for a review of fit indices, see Kalantari, 2009; Schreiber et al., 2006).

Overall, the obtained fit indices indicated that the final model had desirable fit and was well aligned with the empirical data of the study.

In the next step, the parameters of the final model were estimated. This estimation included the factor loadings of the observed variables and the standardized path coefficients between latent constructs, which were analyzed to explain the causal relationships among the research variables. The results from this stage are presented in Figure 1, which depicts the final structural model along with the magnitude and direction of relationships among the components.



**Figure 1. Estimated Parameters in the Measurement Model of the Core Structural Model**

Mothers' adverse childhood experiences; SAHLGIR (Permissive): permissive parenting; ESTEBDADI (Authoritarian): authoritarian parenting; MOQTADER (Authoritative): authoritative parenting; 3 – Children's behavioral problems; INT = internalizing, EXT = externalizing; EA = emotional abuse; PA = physical abuse; SA = sexual abuse; FV = family violence; FI = dysfunctional family environment; EN = emotional neglect; PN = physical neglect; BU = bullying; SV = community violence; CV = collective violence.

In addition, Table 4 presents the estimated parameters of the model, including factor loadings of observed variables and their significance levels, the critical ratio (C.R.) for testing the significance of each factor loading, and both standardized and unstandardized coefficients of direct paths. This table enables a more precise evaluation of the role of each variable in the model and the extent to which constructs influence one another, providing the basis for interpreting causal relationships in the structural model.

**Table 4. Estimated Parameters of the Core Structural Model**

Direct path	Standardized coefficient ( $\beta$ )	Unstandardized coefficient	Critical ratio	p-value
Emotional abuse → Adverse childhood experiences (factor loading)	0.736	1	–	–
Physical abuse → Adverse childhood experiences (factor loading)	0.723	0.922	14.204	0.001
Sexual abuse → Adverse childhood experiences (factor loading)	0.506	0.422	8.230	0.001
Family violence → Adverse childhood experiences (factor loading)	0.732	1.578	11.583	0.001
Dysfunctional family environment → Adverse childhood experiences (factor loading)	0.458	0.382	7.467	0.001
Emotional neglect → Adverse childhood experiences (factor loading)	0.452	0.694	7.378	0.001
Physical neglect → Adverse childhood experiences (factor loading)	0.282	0.236	4.632	0.001
Bullying → Adverse childhood experiences (factor loading)	0.648	0.894	10.423	0.001
Community violence → Adverse childhood experiences (factor loading)	0.392	0.834	6.346	0.001
Collective violence → Adverse childhood experiences (factor loading)	0.427	0.357	6.982	0.001
Internalizing problems → Child behavioral problems (factor loading)	0.706	1	–	–
Externalizing problems → Child behavioral problems (factor loading)	0.831	1.129	7.260	0.001
Mothers' adverse childhood experiences → Child behavioral problems	0.419	2.126	5.264	0.001

Mothers' adverse childhood experiences → Permissive parenting style	-0.104	-0.446	-1.715	0.086
Mothers' adverse childhood experiences → Authoritarian parenting style	0.136	0.710	2.240	0.025
Mothers' adverse childhood experiences → Authoritative parenting style	0.014	0.049	0.225	0.822
Permissive parenting style → Child behavioral problems	0.013	0.015	0.215	0.830
Authoritarian parenting style → Child behavioral problems	0.252	0.246	3.688	0.001
Authoritative parenting style → Child behavioral problems	0.005	0.007	0.073	0.942

The results presented in Table 4 show that the factor loadings of all observed variables for the constructs “mothers’ adverse childhood experiences” and “child behavioral problems” were statistically significant ( $p < 0.001$ , C.R.  $> \pm 1.96$ ) and within acceptable ranges. This indicates that the indicators effectively measured their respective latent constructs.

In the analysis of causal paths, it was found that mothers’ adverse childhood experiences had a direct and significant effect on child behavioral problems ( $\beta = 0.419$ ,  $p < 0.001$ ). This variable also had a positive and significant effect on the authoritarian parenting style ( $\beta = 0.136$ ,  $p = 0.025$ ). However, its effects on permissive parenting ( $p = 0.086$ ) and authoritative parenting ( $p = 0.822$ ) were not significant.

Among the parenting styles, only the authoritarian style had a significant effect on children’s behavioral problems ( $\beta = 0.252$ ,  $p < 0.001$ ), while permissive and authoritative styles did not show significant relationships with child behavioral problems ( $p = 0.830$  and  $p = 0.942$ , respectively). Overall, the findings suggest that mothers’ adverse childhood experiences are associated with increased behavioral problems in children, both directly and through the authoritarian parenting style. These results support the mediating role of the authoritarian parenting style in part of the model, whereas other parenting styles did not play significant mediating roles.

In the final stage, to examine the significance of the indirect effects of mothers’ adverse childhood experiences on children’s behavioral problems through permissive, authoritarian, and authoritative parenting styles and to assess the mediating role of these variables, the bootstrap method with 2000 resamples was used. This method provides more precise estimates of confidence intervals and the significance levels of indirect paths.

The results of this analysis are presented in Table 5 and briefly indicate which parenting styles play a significant mediating role in the relationship between mothers’ adverse childhood experiences and children’s behavioral problems.

**Table 5. Bootstrap Results for Examining the Significance of Indirect Effects in the Model**

Indirect Path	Standardized Indirect Effect ( $\beta$ )	95% CI Lower	95% CI Upper	p-value	Result
Mothers' adverse childhood experiences → Permissive parenting style → Child internalizing problems	0.009	-0.077	0.103	0.747	Not significant
Mothers' adverse childhood experiences → Permissive parenting style → Child externalizing problems	0.011	-0.085	0.119	0.747	Not significant
Mothers' adverse childhood experiences → Authoritarian parenting style → Child internalizing problems	0.178	0.077	0.268	0.001	Significant
Mothers' adverse childhood experiences → Authoritarian parenting style → Child externalizing problems	0.210	0.099	0.317	0.001	Significant

Mothers' adverse childhood experiences → Authoritative parenting style → Child internalizing problems	0.003	-0.082	0.093	0.989	Not significant
Mothers' adverse childhood experiences → Authoritative parenting style → Child externalizing problems	0.004	-0.098	0.102	0.983	Not significant

The examination of the significance of indirect effects in Table 5 shows that among parenting styles, only the authoritarian style played a significant mediating role in the relationship between mothers' adverse childhood experiences and children's behavioral problems. Specifically, the indirect effects of adverse childhood experiences on externalizing problems ( $\beta = 0.210$ , 95% CI = [0.099, 0.317],  $p = 0.001$ ) and internalizing problems ( $\beta = 0.178$ , 95% CI = [0.077, 0.268],  $p = 0.001$ ) through the authoritarian style were statistically significant.

In contrast, the indirect paths through the authoritative and permissive parenting styles were not statistically significant, since their  $p$ -values were greater than 0.05 and their confidence intervals included zero. For example, the indirect effect of adverse childhood experiences on internalizing problems through the authoritative style ( $\beta = 0.003$ , 95% CI = [-0.082, 0.093],  $p = 0.989$ ) and through the permissive style ( $\beta = 0.009$ , 95% CI = [-0.077, 0.103],  $p = 0.747$ ) was not significant.

## Discussion and Conclusion

The present study investigated the structural model of children's behavioral problems as predicted by mothers' adverse childhood experiences (ACEs), while considering the mediating role of different parenting styles—authoritarian, permissive, and authoritative. The results demonstrated that maternal ACEs were positively associated with children's behavioral difficulties, both directly and indirectly. Among parenting styles, only the authoritarian style mediated the relationship, with significant indirect effects on both internalizing and externalizing behavioral problems. In contrast, permissive and authoritative parenting did not emerge as significant mediators. These findings provide strong evidence for the intergenerational transmission of trauma through maladaptive parenting mechanisms.

The direct impact of maternal childhood trauma on children's behavioral problems aligns with an extensive body of literature documenting the long-term consequences of ACEs on psychological functioning across the lifespan. Research consistently shows that early maltreatment and trauma confer risk for a broad spectrum of adult psychopathology, including depression, anxiety, substance misuse, and personality disorders (1, 5). Such outcomes are not confined to the individual; they manifest intergenerationally, shaping how parents interact with and care for their children. In the present study, maternal ACEs predicted child internalizing and externalizing difficulties, underscoring that the sequelae of trauma extend beyond the individual survivor and permeate family systems. This pattern reflects findings that trauma-related shame, guilt, and distorted cognitions in parents are passed down and increase children's risk for maladaptive outcomes (16, 25).

A crucial finding of this research was the mediating role of the authoritarian parenting style. Mothers with higher levels of adverse childhood experiences were more likely to adopt authoritarian practices, which in turn predicted greater behavioral difficulties in children. This is consistent with prior studies indicating that unresolved trauma contributes to harsher, more rigid parenting practices (7, 10). Harsh or emotionally distant parenting has been linked to the development of both internalizing and externalizing symptoms

among children (12). Indeed, authoritarian parenting has been shown cross-nationally to undermine child well-being and life satisfaction (9), while also increasing vulnerability to behavioral maladjustment. The present findings therefore reinforce the idea that authoritarian parenting constitutes a psychological mechanism through which trauma is transmitted across generations.

By contrast, permissive and authoritative parenting did not significantly mediate the relationship between maternal ACEs and child outcomes. This finding merits attention, as authoritative parenting has been widely documented as a protective factor against the negative consequences of adversity (9). One possible interpretation is that in mothers with high levels of unresolved trauma, the adoption of an authoritative style may be less attainable due to impaired reflective functioning or difficulties in emotional regulation (3). Another possibility is that cultural dynamics in the study population moderate the expression of authoritative and permissive styles, leading to weaker associations than those observed in Western contexts (13). These nuances highlight the importance of contextualizing parenting styles within cultural, social, and familial frameworks when interpreting their roles in intergenerational trauma.

The finding that authoritarian parenting served as a mediator also resonates with clinical research on borderline and antisocial personality disorders, where maladaptive schema modes arising from childhood abuse perpetuate relational dysfunction (17, 18). In such cases, unresolved emotional maltreatment fosters rigid interpersonal patterns that are reproduced in caregiving relationships. Similarly, perfectionism and narcissistic traits have been found to mediate links between early trauma and perceived parenting dysfunction (8). The present study extends these insights by showing that authoritarian parenting functions as a central conduit of trauma transmission in the context of children's behavioral problems.

Our results also speak to the emotional and cognitive pathways underlying the intergenerational cycle. Difficulties in emotion regulation and reflective functioning, often heightened in trauma survivors, are associated with both parental burnout and compromised caregiving (3). Likewise, attachment disruptions and impaired mentalizing capacities mediate the link between trauma and caregiving during the transition to parenthood (4, 24). The authoritarian style may reflect these impairments, where emotional unavailability and harsh control replace sensitive caregiving. Consequently, children exposed to authoritarian practices may internalize distress (manifesting as anxiety or depression) or externalize it (through aggression and rule-breaking).

The dual manifestation of child behavioral problems—internalizing and externalizing—observed here echoes findings from trauma research across developmental contexts. For instance, adolescents exposed to trauma often present with internalizing problems, but their trajectories are moderated by resilience and parental emotional socialization (13). Externalizing behaviors, including self-harm, are also consistently linked to childhood trauma (15, 19). Research with adolescents and young adults further reveals that internalized shame, distorted attributions, and experiential avoidance are pathways through which trauma fosters both internalizing distress and externalizing risk behaviors (20, 25). Our findings that authoritarian parenting mediates both types of child problems suggest that harsh caregiving practices amplify both emotional vulnerability and behavioral dysregulation.

The significance of authoritarian parenting in this model can also be considered within a broader framework of intergenerational trauma and resilience. Qualitative studies emphasize that, while trauma often perpetuates maladaptive cycles, siblings and family systems sometimes exhibit resilience that

mitigates transmission (22). However, resilience is less likely to flourish in authoritarian environments, where emotional communication and support are lacking. Conversely, interventions targeting supportive caregiving, such as parent–child interaction therapy (PCIT), have demonstrated success in reducing maltreatment and improving child outcomes (12). Thus, the present findings highlight not only risk pathways but also potential intervention targets.

Biological pathways may also intersect with the psychosocial mechanisms identified. The association between trauma and inflammation has been well documented, with inflammatory responses implicated in the development of depression and mood disorders (5, 6). Chronic stress related to unresolved trauma may alter stress reactivity systems in parents, which subsequently affects caregiving and child regulation. Observed maternal behaviors have been linked to mothers' trauma history, providing evidence for both biological and behavioral conduits (10). Taken together, the integration of biological and psychosocial evidence supports the robustness of the present model.

The cultural context of trauma and parenting deserves additional consideration. In Asian populations, for example, childhood trauma interacts with family conflict and parental problem drinking to predict self-harm and maladaptive coping in offspring (19, 20). In obsessive–compulsive disorder, trauma exposure predicts perceived stress and maladaptive personality traits (21). These cross-cultural findings highlight the variability of trauma's pathways, which may explain why authoritative parenting did not emerge as a significant mediator in the current study. Cultural expectations regarding authority, discipline, and family hierarchy may influence how parenting styles manifest and interact with parental trauma histories (13).

The results of the current study are also consistent with research examining financial, social, and relational behaviors. For example, trauma has been shown to shape adult attachment, money beliefs, and transparency in financial decision-making (11). Similarly, transitions such as moving into new educational environments demonstrate that psychological well-being indices mediate adjustment in the face of stress (26). These findings illustrate the pervasive reach of trauma across domains of functioning, reinforcing the need for comprehensive models of trauma transmission.

Intervention studies provide hope that these cycles can be disrupted. Programs emphasizing structured, measurable interventions—such as SMART nursing projects—have been shown to reduce parental anxiety, depression, and post-traumatic stress (23). Trauma-informed approaches that target reflective functioning, emotion regulation, and supportive caregiving may therefore not only mitigate parental distress but also prevent the emergence of child behavioral problems. The current findings, by identifying authoritarian parenting as a mediator, suggest that interventions aimed at reducing harsh parenting may be particularly effective in breaking cycles of intergenerational harm.

In summary, the findings contribute to a growing body of evidence demonstrating that maternal childhood trauma predicts child behavioral problems, both directly and indirectly, through authoritarian parenting. These results are consistent with existing studies linking ACEs to psychopathology (1), parenting difficulties (7, 10), maladaptive schemas (2, 18), and emotional dysregulation (3, 24). Importantly, the identification of authoritarian parenting as a key mediator underscores the role of caregiving practices in transmitting trauma across generations. By situating the findings within biological, psychological, and cultural frameworks, the present study provides both theoretical insights and practical implications for trauma-informed intervention.



Several limitations must be acknowledged. First, the cross-sectional design of the study precludes causal conclusions regarding the directionality of effects. Although structural equation modeling supports hypothesized pathways, longitudinal designs would be necessary to establish temporal order. Second, the reliance on self-report questionnaires introduces potential biases, including recall bias and social desirability effects, particularly when reporting sensitive experiences such as trauma or parenting practices. Third, the sample was limited to mothers in a single cultural context, which may limit generalizability to fathers, diverse family structures, or other cultural backgrounds. Finally, unmeasured factors, such as socioeconomic stressors or paternal involvement, may have influenced the observed relationships.

Future research should employ longitudinal designs to examine how maternal ACEs, parenting styles, and child behavioral problems interact over time. Including both mothers and fathers would provide a more comprehensive picture of intergenerational trauma transmission within families. Cross-cultural studies are needed to clarify how cultural expectations shape parenting practices and moderate the pathways from trauma to child outcomes. Further, integrating biological markers such as inflammatory processes, cortisol levels, or neuroimaging data could enrich understanding of the biopsychosocial mechanisms involved. Finally, intervention studies testing whether trauma-informed parenting programs reduce child behavioral problems would provide valuable applied evidence.

Practitioners working with families should adopt trauma-informed approaches that address both parental histories of adversity and current parenting practices. Programs that reduce authoritarian tendencies while promoting reflective, supportive caregiving may be especially effective. Providing psychoeducation on the intergenerational impacts of trauma could enhance parents' awareness and motivation for change. Clinicians should also consider integrating skills for emotion regulation and stress management into parent-focused interventions. Community-based supports, such as group interventions and resilience-building workshops, may further buffer families from the intergenerational transmission of trauma.

## Acknowledgments

The authors express their deep gratitude to all participants who contributed to this study.

## Authors' Contributions

All authors equally contributed to 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.

## 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.

## References

1. McKay MT, Cannon M, Chambers D, Conroy RM, Coughlan H, Dodd P, et al. Childhood trauma and adult mental disorder: A systematic review and meta-analysis of longitudinal cohort studies. *Acta Psychiatrica Scandinavica*. 2021;143(3):189-205.
2. Zeynel Z, Uzer T. Adverse childhood experiences lead to trans-generational transmission of early maladaptive schemas. *Child Abuse & Neglect*. 2020;99:104235. doi: 10.1016/j.chiabu.2019.104235.
3. Ensanimehr N, Dehshiri G, Mousavi SF. Childhood Trauma and Parental Burnout: The Mediating Role of Difficulties in Emotion Regulation and Reflective Functioning. *Psychological Reports*. 2024. doi: 10.1177/00332941241282569.
4. Ensink K, Bégin M, Martin-Gagnon G, Biberdzic M, Berthelot N, Normandin L, et al. Post-Traumatic-Stress in the Context of Childhood Maltreatment: Pathways From Attachment Through Mentalizing During the Transition to Parenthood. *Frontiers in Psychology*. 2023;14. doi: 10.3389/fpsyg.2023.919736.
5. Poletti S, Paolini M, Ernst J, Bollettini I, Melloni E, Vai B, et al. Long-term effect of childhood trauma: Role of inflammation and white matter in mood disorders. *Brain, Behavior, & Immunity - Health*. 2022;26:100529. doi: 10.1016/j.bbih.2022.100529.
6. Worrell C. Navigating a Complex Landscape – A Review of the Relationship Between Inflammation and Childhood Trauma and the Potential Roles in the Expression of Symptoms of Depression. *Brain Behavior & Immunity - Health*. 2022. doi: 10.1016/j.bbih.2022.100418.
7. Schorr MT, Quadros dos Santos BTM, Feiten JG, Sordi AO, Pessi C, Von Diemen L, et al. Association between childhood trauma, parental bonding and antisocial personality disorder in adulthood: A machine learning approach. *Psychiatry Research*. 2021;304:114082.
8. Kermanian S, Golshani F, Baghdasarians A, Jomhari F. The mediating role of perfectionism in relation to narcissism and early trauma, family functioning and perceived parenting styles. *Journal of Community Health Research*. 2021;10(2):117-27. doi: 10.18502/jchr.v10i2.6587.
9. Lavrič M, Naterer A, Lawson CMC. The power of authoritative parenting: A cross-national study of effects of exposure to different parenting styles on life satisfaction The impact of pre-military therapy on post-military posttraumatic stress disorder severity in veterans with adverse childhood experiences. *Children and Youth Services Review*. 2020;116:105274. doi: 10.1016/j.childyouth.2020.105274.
10. VanBronkhorst SB, McCormack C, Scorza P, Lee S, Feng T, Hane AA, et al. Maternal Childhood Trauma and Observed Maternal Care Behaviors With 4-Month-Old Infants. *Psychological Trauma Theory Research Practice and Policy*. 2024;16(Suppl 1):S81-S7. doi: 10.1037/tra0001554.
11. Ross DB, Coombs E, Johnson E. Trauma of the past: The impact of adverse childhood experiences on adult attachment, money beliefs and behaviors, and financial transparency. *Journal of Financial Therapy*. 2022;13(1):4.
12. Warren JM, Halpin SA, Hanstock TL, Hood C, Hunt SA. Outcomes of Parent-Child Interaction Therapy (PCIT) for families presenting with child maltreatment: A systematic review. *Child Abuse & Neglect*. 2022;134:105942.
13. Liao CCL, Dong-mei W. Childhood Trauma and Adolescent Internalizing Problems: Examining the Mediating Role of Psychological Resilience and Moderating Role of Parental Emotional Socialization. *Advances in Education Humanities and Social Science Research*. 2023;7(1):48. doi: 10.56028/aehtsr.7.1.48.2023.
14. Shahmoradi H, Masjedi-Arani A, Bakhtiari M, Abasi I. Investigating the Role of Childhood Trauma, Emotion Dysregulation, and Self-Criticism in Predicting Self-Harming Behaviors. *Practice in Clinical Psychology*. 2021;9(4):321-8. doi: 10.32598/jpcp.9.4.789.1.

15. fard MM, Neudehi MF, mianroudi FJ, Solgi Z. The Role of Childhood Trauma, Cognitive Flexibility, and Cognitive Distortions in Predicting Self-Harming Behaviors Among Female Adolescents. *Caspian Journal of Health Research*. 2023;8(2):85-92. doi: 10.32598/cjhr.8.2.445.1.
16. Zhang L, Wang P, Liu L, Wu X, Wang W. Childhood maltreatment affects college students' nonsuicidal self-injury: Dual effects via trauma-related guilt, trauma-related shame, and prosocial behaviors. *Child Abuse & Neglect*. 2023;141:106205. doi: 10.1016/j.chiabu.2023.106205.
17. Goldbach RE, Neukel C, Panizza A, Reinken A, Krause-Utz A. Differentiating Between Intrapsychic Symptoms and Behavioral Expressions of Borderline Personality Disorder in Relation to Childhood Emotional Maltreatment and Emotion Dysregulation: An Exploratory Investigation. *European Journal of Psychotraumatology*. 2023;14(2). doi: 10.1080/20008066.2023.2263317.
18. Lobbetael J, Arntz A, Sieswerda S. Schema modes and childhood abuse in borderline and antisocial personality disorders. *Journal of Behavior Therapy and Experimental Psychiatry*. 2005;36(3):240-53. doi: 10.1016/j.jbtep.2005.05.006.
19. Kong SS, Lee JH, Shin MY. Impact of Childhood Trauma on Self-Harm Behavior in Patients With Eating Disorders and the Mediating Effect of Parental Conflict. *Journal of Korean Academy of Psychiatric and Mental Health Nursing*. 2009;18(1):31-40. doi: 10.12934/jkpmhn.2009.18.1.31.
20. Lee ES, Bong EJ. Impact of Childhood Trauma and Parents' Problem Drinking on Problem Drinking of Their University Student Children: Mediating Effects of Experiential Avoidance. *Journal of Korean Academy of Psychiatric and Mental Health Nursing*. 2015;24(3):207. doi: 10.12934/jkpmhn.2015.24.3.207.
21. Wang Y, Hong A, Yang W, Wang Z. The impact of childhood trauma on perceived stress and personality in patients with obsessive-compulsive disorder: A cross-sectional network analysis. *Journal of Psychosomatic Research*. 2023;172:111432. doi: 10.1016/j.jpsychores.2023.111432.
22. Nichol MR, Curley LJ, Sime PJ. The Intergenerational Transmission of Trauma, Adverse Childhood Experiences and Adverse Family Experiences: A Qualitative Exploration of Sibling Resilience. *Behavioral Sciences*. 2025;15(2):161. doi: 10.3390/bs15020161.
23. Guo L. A Specific, Measurable, Achievable, Relevant, Timed (SMART) Nursing Project Reduces Anxiety, Depression, and Post-Traumatic Stress Disorder in Parents of Childhood or Adolescent Osteosarcoma Patients. *The Tohoku Journal of Experimental Medicine*. 2024;262(4):229-38. doi: 10.1620/tjem.2023.j107.
24. Liu S, Wang Z, Lu S, Shi J. Dyadic Analysis of Childhood Emotional Maltreatment and Marital Satisfaction During the Transition to Parenthood: The Mediating Effects of Emotion Regulation Strategies and Psychological Distress. *Journal of Aggression, Maltreatment & Trauma*. 2019;28(10):1216-31. doi: 10.1080/10926771.2018.1466381.
25. Reza Qalian M, Machinchi Abasi N, Nemati F. The role of childhood traumatic experiences, attribution styles, and internalized shame in predicting suicidal thoughts among students. *Behavior and Mind Journal*. 2024;3(5):1-10. doi: 10.61838/kman.pdmd.3.5.6.
26. Ofem UJ. Adjustment Tendencies Among Transiting Students: A Mediation Analysis Using Psychological Wellbeing Indices. *International Journal of Education and Cognitive Sciences*. 2023;4(3):1-19. doi: 10.61838/kman.ijecs.4.3.1.