






The Relationship between Child ADHD Symptoms and Maternal Quality of Life with the Mediating Role of Marital Conflict and Mother-Child Conflict

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ABSTRACT

Objective: This study aims to investigate the relationship between child ADHD symptoms and maternal quality of life, considering the mediating roles of marital conflict and mother-child conflict.

Methods: The research method is descriptive and correlational. The statistical population consists of all mothers of elementary school children in Rasht city during the 2019-2020 academic year. Using convenience sampling, 160 mothers were selected. The World Health Organization Quality of Life – Short Form (1996), the Child Symptom Inventory (Parent Form) by Sprafkin, Laney, and Gadow (1994), the Marital Conflict Questionnaire by Barati and Sanaei (2000), and the Pianta Parent-Child Relationship Scale (1994) were utilized. Data were analyzed using structural equation modeling.

Findings: The results indicated that child ADHD symptoms alone do not have a significant relationship with maternal quality of life ($P > 0.05$). However, marital conflict has a significant negative relationship with quality of life ($P < 0.05$), and mother-child conflict also has a significant negative relationship with quality of life ($P < 0.05$). Furthermore, marital conflict and mother-child conflict mediate the relationship between child ADHD symptoms and maternal quality of life ($P < 0.001$).

Conclusion: The findings suggest that the presence of child ADHD symptoms, when combined with the mediating factors of marital conflict and mother-child conflict, negatively impacts maternal quality of life. Additionally, both marital conflict and mother-child conflict directly negatively affect maternal quality of life.

Keywords: ADHD, marital conflict, mother-child conflict, quality of life

1. Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development (American Psychiatric Association, 2022). Attention deficit manifests as behaviors such as leaving activities unfinished or difficulty maintaining focus, while hyperactivity refers to increased motor activities at inappropriate times, excessive talking, and restlessness (Antoniou et al., 2021; Barra et al., 2022; Chronis-Tuscano, 2022). Children with this disorder are often constantly moving, unable to control their reactions, or foresee the consequences of their actions, and have difficulty processing environmental information (Abedi-Shapourabadi et al., 2012; Agnew-Blais et al., 2022; Azizi et al., 2018; Cappe et al., 2017). Motherhood itself involves numerous challenges and stresses, and mothers of children with special needs face additional difficulties.

When a child exhibits symptoms of ADHD, challenges and issues related to parental quality of life increase (Whalen et al., 2011). The behavioral manifestations of children with ADHD can lead to restricted parental roles, feelings of incompetence in child-rearing, weak emotional attachment between parent and child, and increased family tension (Azizi et al., 2018). Additionally, children's ADHD symptoms can increase the likelihood of parental depression (Teo & Noyes, 2014). Mothers of these children also experience lower satisfaction and higher anxiety and distress (Mousavi, 2016). Agnew-Blais et al. (2022) found that children in chaotic families exhibit more ADHD symptoms (Agnew-Blais et al., 2022).

One concept that helps improve human life is the concept of quality of life. Quality of life refers to an individual's satisfaction with their personal life in relation to environmental factors that affect their needs, interests, choices, lifestyle, and other aspects of optimal living (Cornacchio et al., 2018). Quality of life is a multidimensional and complex concept that includes individuals' cognitive evaluations of their own life status

(Shahbazi & Khademali, 2018). People with low quality of life tend to evaluate past, present, and future events negatively (Pollo et al., 2018). Maternal quality of life is crucial for family well-being (Chang, 2016; Whalen et al., 2011). The role of motherhood for children with special needs significantly impacts maternal quality of life due to the challenges and limitations these children unintentionally impose on their parents (Jafari et al., 2017; Tonga & Düger, 2008).

As mothers play various roles within the family and establish deep connections with their children from birth (Azimifar et al., 2018; Ros & Graziano, 2018), they are more susceptible to physical, psychological, social, and interpersonal issues resulting from their child's problems (Ashori & Ahmadian, 2018; Jafari et al., 2017; Javani, 2016; van der Geest et al., 2014). ADHD symptoms in children can directly impact maternal quality of life and may also be mediated by other factors such as marital conflict (Emerman, 2017) and mother-child conflict (Chang, 2016). Child behavioral problems pose numerous challenges for families and profoundly affect internal family dynamics (Wan Yunus et al., 2015). These problems also negatively impact parental quality of life, psychological well-being, and marital relationships (Cappe et al., 2017). Poor parenting practices and problematic parent-child relationships are linked to parental dissatisfaction (Whalen et al., 2011).

Severe parent-child conflict can harm individual values, reduce empathy for cooperation and achieving common goals, and lead to depression, violence, social withdrawal, alcohol consumption, and family tension (McCoy et al., 2009). Mothers, due to daily child care pressures, are more vulnerable to health-related issues than fathers (Ashori & Ahmadian, 2018). Interactions with children showing ADHD symptoms indicate that the child's behavior acts as a stressor and affects parent-child interactions, especially with the mother (Abedi-Shapourabadi et al., 2012). ADHD in children can lead to varying degrees of marital conflict (Musavi et al., 2012). Marital conflict reduces quality of life and increases the likelihood of psychological harm (Olia Zadeh & Raeisi, 2017). Conflict arises when one person's

behavior does not align with another's expectations (Bahari et al., 2011; Javdan et al., 2018; Olia Zadeh & Raeisi, 2017; Sadati et al., 2021).

The communicative characteristics of conflicting couples include criticism, high negative emotions, and low positive emotions due to self-centeredness and irresponsible behavior towards the marital relationship. The birth of a child inherently causes changes in emotional and behavioral exchanges between couples, and the birth of a child with behavioral and psychological issues leads to greater maladjustment in couples, and the birth of a child with ADHD are associated with high levels of discord and inconsistency, as these children exhibit more negative behaviors than their peers, leading to family dysfunction (Abedi-Shapourabadi et al., 2012; Agnew-Blais et al., 2022; Jafari et al., 2017; Musavi et al., 2012; Whalen et al., 2011). Given the direct and indirect effects of ADHD on maternal quality of life, few studies have specifically addressed this issue. Thus, this study aims to explain the direct and indirect effects of child ADHD symptoms, considering the mediating role of marital conflict and mother-child conflict.

2. Methods

2.1. Study design and Participant

This cross-sectional correlational study examines the relationship between child ADHD symptoms and maternal quality of life, with marital conflict and mother-child conflict as mediating variables. The statistical population includes all mothers of elementary school children in Rasht city during the 2019-2020 academic year. Convenience sampling was used until the sample size was completed. After obtaining permission from the Rasht Education Department, four schools, including three boys' schools and one girls' school, were randomly selected. Klein's (2016) recommendation of 20 samples per parameter was used to determine the desired sample size for path analysis. Based on the conceptual model, eight free parameters required 160 participants to test the model fit. Data collection was

conducted using paper questionnaires. School administrators coordinated with the research team to invite mothers to a meeting where the study was explained, and any ambiguities were clarified. There was no sample attrition due to the researcher's presence during questionnaire completion and careful review of responses. Inclusion criteria included female respondents, having an elementary school child, and minimum literacy, while exclusion criteria were divorced mothers and incomplete questionnaires. Participants completed the World Health Organization Quality of Life – Short Form (1996), the Child Symptom Inventory (Parent Form) by Sprafkin, Lani, and Gadow (1994), the Marital Conflict Questionnaire by Barati and Sanaei (2000), and the Pianta Parent-Child Relationship Scale (1994).

2.2. Measures

2.2.1. Quality of Life

World Health Organization Quality of Life – Short Form is a 26-item questionnaire that assesses an individual's overall quality of life and general health across four subscales: physical health, psychological health, social relationships, and environmental health, along with a general score. Each subscale score is converted to a standardized score between 0 and 100, with higher scores indicating better quality of life. In a study by Ohaeri and Awadalla (2009), conducted on 3303 participants (46.8% male, 55.2% female) aged 16-87, Cronbach's alpha was 0.80 for physical health, 0.77 for psychological health, 0.69 for social relationships, and 0.83 for environmental health, with a split-half reliability of 0.89 (Ohaeri & Awadalla, 2009). A study on 1167 Tehran residents divided participants into chronic and non-chronic disease groups, with test-retest reliability for subscales as follows: 0.77 for physical health, 0.77 for psychological health, 0.75 for social relationships, and 0.84 for environmental health (Nejat et al., 2006). The Cronbach's alpha for this study was 0.91, indicating high reliability.

2.2.2. *ADHD Symptoms*

Child Symptom Inventory – Fourth Edition (Parent Form) is a 110-item questionnaire that identifies various disorders in children, with section A (items 1-18) used for ADHD symptoms. Scoring is binary, with "never" and "sometimes" responses scored 0, and "often" and "most of the time" scored 1. In a study by Gadow and Sprafkin (1997), test-retest reliability was significant for all subscales at $p < 0.001$. DeVincent and Gadow (2009) examined sensitivity, specificity, and positive predictive power for distinguishing autism spectrum disorder from ADHD (DeVincent & Gadow, 2009). Tavakolizadeh et al. (1996) reported teacher and parent checklist reliability of 0.90 and 0.92, respectively. The Cronbach's alpha for this study was 0.78, indicating appropriate reliability (Abedi-Shapourabadi et al., 2012; Azizi et al., 2018; Musavi et al., 2012).

2.2.3. *Marital Conflict*

This 42-item tool assesses marital conflict based on clinical experiences across seven dimensions: decreased cooperation, reduced sexual relations, increased emotional reactions, increased personal relations with one's own relatives, decreased family relations with spouse's relatives and friends, separated finances, and increased child support seeking. Internal consistency and validity were confirmed in multiple studies. Honarparvaran, Ghaderi, and Ghobadi (2011) reported Cronbach's alpha of 0.53 overall, with subscale alphas as follows: decreased cooperation 0.30, reduced sexual relations 0.50, increased emotional reactions 0.73, increased personal relations with one's own relatives 0.64, decreased family relations with spouse's relatives and friends 0.64, separated finances 0.51, and increased child support seeking 0.60. Bahadori, Ahmadi, Fatehi Zadeh, and Bahrami (2011) confirmed content and face validity by comparing mean scores between conflicted and non-conflicted couples, with significant differences indicating the test's discriminative power (Bahari et al., 2011; Honarvaran et al., 2011; Olia Zadeh & Raeisi, 2017). The

present study obtained a Cronbach's alpha of 0.83 for this questionnaire, indicating high reliability.

2.2.4. *Parent-Child Conflict*

Developed by Pianta in 1994, this 33-item scale measures parents' perceptions of their relationship with their child across four domains: closeness, dependence, conflict, and overall positive relationship. It uses a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree). The overall positive relationship score is derived by summing the scores for closeness and reversing the scores for conflict and dependence. Factor analysis revealed three main factors: conflict (12 items), positive relationship (10 items), and dependence (4 items). Internal consistency for these factors was 0.83, 0.72, and 0.50, respectively. Content validity and reliability were established by Abarashi et al. (2009), with Cronbach's alpha for conflict, closeness, dependence, and overall positive relationship being 0.83, 0.69, 0.46, and 0.84, respectively. Reliability for these domains was reported as 0.60, 0.70, 0.84, and 0.86, respectively. Due to the sample consisting of mothers of children aged 0 to 3 years, some items were omitted, reducing the questionnaire from 33 to 24 items (Abareshi et al., 2009). The current study reported a Cronbach's alpha of 0.85 for this scale, indicating high reliability.

2.3. *Data Analysis*

Data were analyzed using structural equation modeling, descriptive and inferential statistics, path analysis, and the Bootstrap method in the MACRO PROCESS by Preacher and Hayes (2008). Data processing was performed using SPSS version 26 and AMOS version 24.

3. **Findings and Results**

The respondents to the questionnaire consisted of 28.6% parents of female students and 71.4% parents of male students. In terms of children's age, 22.4% were under 8 years old, 53.1% were between 8 and 10 years old, and 24.5% were over 10 years old. The average age of the children was 9.06 years, ranging from 7 to 12 years, with a

standard deviation of 1.79. Most respondents had children in the second grade, accounting for 25.2%. Regarding mothers' age, 8.8% were under 30 years old, 73.5% were between 30 and 40 years old, and 17.7% were over 40 years old. The average age of the mothers was 35.56 years, ranging from 26 to 50 years, with a standard deviation of 4.56. Most mothers

had a high school diploma (50.3%) or a bachelor's degree (30.6%). Concerning the duration of marriage, 19% had been married for less than 10 years, 70.7% for 10 to 20 years, and 10.2% for over 20 years. The average duration of marriage was 14.18 years, ranging from 5 to 29 years, with a standard deviation of 4.45.

Table 1

Means and Standard Deviations of Research Variables (n = 147)

Variable	Mean	Standard Deviation	Skewness	Kurtosis
Maternal Quality of Life	72.11	10.58	-0.125	0.274
Child ADHD Symptoms	2.78	2.94	0.888	-0.162
Marital Conflict	62.38	13.01	0.755	-0.227
Mother-Child Conflict	44.92	12.77	0.168	-0.547

The maternal quality of life variable had a mean of 72.11 and a standard deviation of 10.58. The child ADHD symptoms variable had a mean of 2.78 and a standard

deviation of 2.94. The mediating variables, marital conflict, and mother-child conflict, had means and standard deviations of 62.38 (13.01) and 44.92 (12.77), respectively.

Table 2

Correlation Between Research Variables

Variable	Maternal Quality of Life	Child ADHD Symptoms	Marital Conflict	Mother-Child Conflict
Maternal Quality of Life	1			
Child ADHD Symptoms	-0.113	1		
Marital Conflict	-0.429**	0.163*	1	
Mother-Child Conflict	-0.386**	0.369**	0.377**	1

*p<0.05, **p<0.01

Table 2 shows the Pearson correlation information between child ADHD symptoms, maternal quality of life, marital conflict, and mother-child conflict. The correlation matrix results show a significant negative relationship between maternal quality of life with marital conflict and mother-child conflict (p < .01). There is a significant positive relationship between child ADHD symptoms and both

marital conflict and mother-child conflict (p < .05). There is also a significant positive relationship between marital conflict and mother-child conflict (p < .01). There is no significant relationship between child ADHD symptoms and maternal quality of life.

To examine the research objectives and test the proposed model of the relationship between child ADHD symptoms

and maternal quality of life, with the mediating roles of marital conflict and mother-child conflict, structural equation modeling using path analysis was employed. The proposed model in this study includes four variables: one exogenous variable (child ADHD symptoms), one endogenous variable (maternal quality of life), and two mediating variables (marital conflict and mother-child conflict). The fit of the proposed model with the data was evaluated based on fit indices, including chi-square as an absolute fit index, as reported in Table 3. The greater the chi-square value from zero, the less the model fits. Other fit indices are reported in the table.

Before conducting path analysis, assumptions were checked. Mahalanobis' d^2 index was used to check for multivariate outliers, with significant levels less than 0.05 indicating outliers. Based on this index, 13 outliers were excluded from the analysis. The univariate normality was assessed by examining the skewness and kurtosis indices of

observed variables. Absolute values of skewness less than 3 and kurtosis less than 10 indicate no issue with univariate normality. Table 1 shows the skewness and kurtosis indices for research variables in the path model. None of the variables had absolute skewness greater than 3 or absolute kurtosis greater than 10, indicating no issue with univariate normality. Multivariate normality was assessed using the standardized Mardia's coefficient, which was -0.332 in this study, less than the threshold of 24, calculated by the formula $p(p+2)$.

Before examining structural coefficients, the fit of the primary model was evaluated. Fit indices for the initial model did not indicate acceptable fit (see Table 3). To improve the model fit, the first step involved removing one non-significant path (modified model 1), and in the second step, freeing the error covariance between e1 and e2 (final model in Figure 1). Fit indices for these models are shown in Table 3.

Table 3

Fit Indices for the Proposed Model, First Modified Model, and Final Model

Fit Indices	Model	χ^2	df	p-value	CMIN/df	RMSEA	PNFI	CFI	PCFI	IFI	AIC
Proposed Model		18.609	1	.0001	18.609	.347	.130	.776	.129	.790	44.609
First Modified Model		18.910	2	.0001	9.455	.241	.259	.785	.262	.795	42.910
Final Model		0.301	1	.583	0.301	.01	.566	.998	.567	.995	26.301

Note. Acceptable values for indices are: PNFI, PCFI (>.5), CFI, IFI (>.9), RMSEA (<0.08), CMIN/df (3 < good, 5 < acceptable).

Abbreviations: CFA = Confirmatory Factor Analysis; CMIN/df = Chi-square/degree-of-freedom ratio; RMSEA = Root Mean Square Error of Approximation; PCFI = Parsimonious Comparative Fit Index; AIC = Akaike Information Criterion; PNFI = Parsimonious Normed Fit Index; IFI = Incremental Fit Index; CFI = Comparative Fit Index.

Table 3 shows that the proposed model did not have a good fit. To improve the fit, one non-significant path was removed (first modified model), and in the next step, the error covariance between e1 and e2 was freed (final model shown in Figure 1). The results indicate that the final model has a good fit. The R^2 index shows the variance explained by the observed endogenous variables. The R^2 for maternal

quality of life is 0.342, indicating that all independent and mediating variables (child ADHD symptoms, marital conflict, and mother-child conflict) can predict 34% of the variance in maternal quality of life, which is moderate. The R^2 for mother-child conflict is 23%, moderate, and for marital conflict, it is 26%, moderate. Table 4 shows the standardized path coefficients in the final model (Figure 1).

Evaluating the direct relationships between research variables in the final model (Figure 1) shows that the relationship between child ADHD symptoms and maternal quality of life is not statistically significant ($\beta = 0.04, p > 0.05$). However, there is a statistically significant negative relationship between marital conflict and maternal quality of

life ($\beta = -0.33, p < 0.05$). Similarly, there is a statistically significant negative relationship between mother-child conflict and maternal quality of life ($\beta = -0.26, p < 0.05$). Table 4 shows the standardized coefficients for all paths in the final model. All remaining direct paths in the final model are significant ($p < 0.05$).

Table 4

Standardized Path Coefficients in the Final Model

Path	β	Standard Error	t	p-value
Child ADHD Symptoms → Marital Conflict	0.163	0.361	1.992	0.046
Child ADHD Symptoms → Mother-Child Conflict	0.369	0.333	4.792	0.0001
Marital Conflict → Maternal Quality of Life	-0.330	0.063	-4.244	0.0001
Mother-Child Conflict → Maternal Quality of Life	-0.261	0.064	-3.361	0.0001

The results of the mediation analysis using the Bootstrap method in the MACRO PROCESS by Preacher and Hayes

(2008) are shown in Table 5. These results test the indirect paths in the proposed research model.

Table 5

Results of Bootstrap Analysis for Indirect Paths in the Final Model

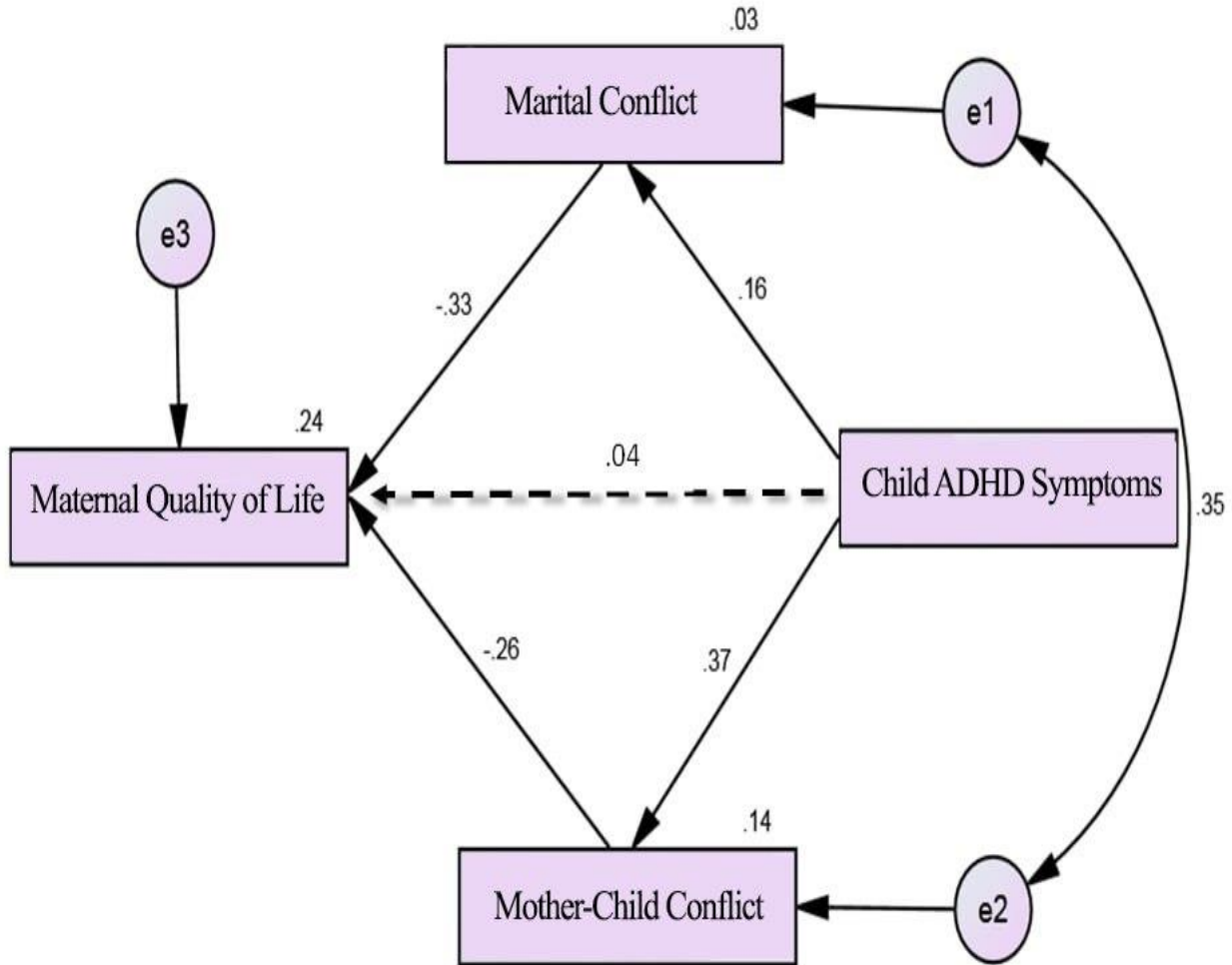
Path	Data	Boot	Bias	SE	Lower CI	Upper CI	p-value
Child ADHD Symptoms → Maternal Quality of Life via Marital Conflict	-0.193	-0.191	0.002	0.109	-0.472	-0.017	0.029
Child ADHD Symptoms → Maternal Quality of Life via Mother-Child Conflict	-0.346	-0.346	0.000	0.126	-0.651	-0.159	0.0001

Table 5 shows that zero is outside the lower and upper bounds of the 95% confidence interval for both marital conflict and mother-child conflict as mediating variables between child ADHD symptoms and maternal quality of life,

indicating statistical significance. Therefore, marital conflict and mother-child conflict mediate the relationship between child ADHD symptoms and maternal quality of life ($p < 0.05$).

Figure 1

Final Model with Standard Coefficients



According to the estimated indices in Table 3, the structural relationship between child ADHD symptoms and maternal quality of life through marital conflict and mother-child conflict fits well. In the final model (Figure 1), the numbers on the paths are path weights or betas. The highest coefficient (0.369) is for the path from child ADHD symptoms to mother-child conflict, and the weakest coefficient (0.163) is for the path from child ADHD symptoms to marital conflict.

4. Discussion and Conclusion

The results of the present study showed that child ADHD symptoms alone do not have a significant relationship with maternal quality of life as an independent variable. However, this variable has a significant relationship with maternal quality of life when the mediating variables of mother-child conflict and marital conflict are present. Quality of life is a broad concept that relies on individuals' cognitive evaluation of their own lives (Shahbazi & Khademali, 2018). Therefore, parents' awareness and understanding of ADHD symptoms

in their child can lead to a more realistic perspective in dealing with the child's problems.

In this study, about 50% of the sample consisted of mothers with a high school diploma, and about 33% had a university education. This, along with the father's support in dealing with problems, can be effective in increasing mothers' awareness of their child's issues, maintaining calmness, and finding appropriate ways to interact with and help the child. This finding contrasts with the prior studies (Abedi-Shapourabadi et al., 2012; Agnew-Blais et al., 2022; Jafari et al., 2017; Musavi et al., 2012; Whalen et al., 2011), which indicated that child ADHD symptoms reduce maternal quality of life. However, the present study suggests that while ADHD symptoms make parenting more challenging, they may not significantly impact maternal quality of life on their own. The discrepancy might be due to the different tools used; this study used a self-report questionnaire based on mothers' experiences, while previous studies evaluated clinically diagnosed ADHD children. Various cultural and familial characteristics in the sample and the tools used might contribute to the non-significant relationship between ADHD symptoms and maternal quality of life.

The analysis showed a significant negative relationship between marital conflict and maternal quality of life. This is consistent with prior Ismail, Han, and Yusoff's (2015) study on Malaysian married couples, showing that increased marital conflict leads to decreased quality of life. Marital conflict involves high levels of disrupted interactions and potential disrespect and misconduct, impairing family functioning (Ismail et al., 2015). This study, focused on mothers, shows that reducing marital conflict can enhance quality of life. However, when a child is born, marital relations are somewhat influenced by parenting duties. Proper marital communication is crucial for family well-being and psychological health, impacting individuals' quality of life (Javdan et al., 2018; Musavi et al., 2018; Olia Zadeh & Raeisi, 2017). Therefore, understanding between conflicted couples directly and indirectly correlates with marital satisfaction.

Data analysis showed a significant negative relationship between mother-child conflict and maternal quality of life. Similarly, Sanner and Neece (2018) indicated that improving parent-child interaction quality can reduce parental distress and child behavioral problems (Sanner & Neece, 2018). The parent-child relationship is vital, especially for mothers, as it fosters mutual understanding and acceptance (Jafari et al., 2017). The mother-child relationship is bidirectional, significantly shaping the child's personality and mental health into adulthood (Abareshi et al., 2009; Abedi-Shapourabadi et al., 2012; Ashori & Ahmadian, 2018; Azimifar et al., 2018; Jafari et al., 2017; Whalen et al., 2011). When parents feel incapable of changing their child's behavior, they become distressed and lose confidence, leading to reduced quality of life. Warm, supportive relationships between mother and child are crucial for preventing stress and enhancing parenting effectiveness. This study found that increased mother-child conflict reduces maternal quality of life, while a positive mother-child relationship improves it.

Data analysis revealed that marital conflict and mother-child conflict significantly mediate the relationship between child ADHD symptoms and maternal quality of life. Cappe et al. (2017) found that child ADHD negatively impacts parental quality of life, psychological well-being, family relationships, and daily activities (Cappe et al., 2017). Marital conflict reduces quality of life through various pathways, including decreased cooperation, reduced sexual relations, increased emotional reactions, increased individual relations with one's own relatives, decreased family relations with the spouse's relatives and friends, separated finances, and increased child support seeking (Honarvaran et al., 2011; Olia Zadeh & Raeisi, 2017). Marital conflict significantly negatively relates to quality of life and mediates the relationship between child ADHD symptoms and maternal quality of life. Marital conflict is crucial for women's mental health and quality of life, as the marital relationship is one of the closest, most emotional, and sensitive relationships, affecting various life aspects. Respect, mutual understanding, support, and effective

communication help create a satisfying life. A child's ADHD symptoms can exacerbate marital tension and reduce maternal quality of life. Supportive fathers can help reduce conflicts and enhance marital satisfaction by not attributing the child's behavior to poor maternal parenting and acknowledging their wives' efforts.

The second significant mediating variable between child ADHD symptoms and maternal quality of life is mother-child conflict. The mother-child relationship is fundamental in mothers' and children's lives. Other studies have noted the reciprocal effects of parent-child conflicts and life satisfaction (Javani, 2016). Parental education, especially for mothers, on child-rearing and effective communication skills is essential for managing ADHD symptoms and improving parent-child interactions (Abareshi et al., 2009; DeVincent & Gadow, 2009; Sanner & Neece, 2018; Vasilopoulou & Nisbet, 2016). The mother-child relationship significantly impacts later life stages, and mothers' parenting skills and self-efficacy are crucial. When a child shows ADHD symptoms, mothers' effective coping strategies and a positive mother-child relationship improve maternal quality of life. Maintaining calmness, seeking expert help, avoiding self-blame, refraining from physical punishment, being creative, resolving conflicts, and fostering emotional bonds lead to better quality of life. This study found that mother-child conflict and marital conflict mediate the relationship between child ADHD symptoms and maternal quality of life.

5. Suggestions and Limitations

One limitation of this study is the use of self-report questionnaires, which might lead to over- or underestimation of the problems by the mothers, potentially affecting the accuracy of the data. Additionally, the cross-sectional design of the study does not allow for causal inferences to be made about the relationships between child ADHD symptoms, marital conflict, mother-child conflict, and maternal quality of life. The sample was also limited to mothers of elementary school children in Rasht, which may not be representative of other populations. Finally, cultural and familial

characteristics unique to the sample may have influenced the findings, limiting the generalizability of the results.

Future research should employ longitudinal designs to better understand the causal relationships between child ADHD symptoms, marital conflict, mother-child conflict, and maternal quality of life. Studies could also benefit from including a more diverse sample that encompasses different regions, cultures, and socioeconomic backgrounds to enhance the generalizability of the findings. Additionally, using multi-informant reports, including fathers and teachers, could provide a more comprehensive understanding of the child's behavior and its impact on family dynamics. Future research should also explore the effectiveness of specific intervention programs aimed at reducing marital and mother-child conflict to improve the quality of life for mothers of children with ADHD.

The findings of this study highlight the importance of addressing both marital and mother-child conflict in interventions designed to support families of children with ADHD. Mental health professionals and educators should focus on providing comprehensive family therapy and parent training programs that include strategies for managing marital conflict and enhancing mother-child interactions. Schools and community centers could also offer workshops and support groups for parents to share experiences and develop effective coping mechanisms. Policymakers should consider funding and promoting programs that target family dynamics to improve the overall well-being of parents and children affected by ADHD.

Authors' Contributions

Authors contributed equally to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

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

References

- Abareshi, Z., Tahmasian, K., Mazaheri, M. A., & Panaghi, L. (2009). The impact of psychosocial Child Development training program, done through improvement of mother-child interaction, on parental self-efficacy and relationship between mother and child under three. *rph*, 3(3), 49-58. <http://rph.khu.ac.ir/article-1-115-en.html>
- Abedi-Shapourabadi, S., Pourmohamadreza-Tajrishi, M., Mohamadkhani, P., & Farzi, M. (2012). Effectiveness of Group Training Positive Parenting Program (Triple-P) on Parent-Child Relationship in Children with Attention Deficit/Hyperactivity Disorders. *Journal of Clinical Psychology*, 4(3), 63-73. <https://doi.org/10.22075/jcp.2017.2098>
- Agnew-Blais, J. C., Wertz, J., Arseneault, L., Belsky, D. W., Danese, A., Pingault, J.-B., Polanczyk, G. V., Sugden, K., Williams, B., & Moffitt, T. E. (2022). Mother's and children's ADHD genetic risk, household chaos and children's ADHD symptoms: A gene-environment correlation study. *Journal of Child Psychology and Psychiatry*, 63(10), 1153-1163. <https://doi.org/10.1111/jcpp.13659>
- American Psychiatric Association, A. (2022). *Diagnostic and statistical manual of mental disorders: DSM-5-TR*. Washington, DC: American psychiatric association. <https://doi.org/10.1176/appi.books.9780890425787>
- Antoniou, E., Rigas, N., Orovou, E., Papatrechis, A., & Sarella, A. (2021). ADHD Symptoms in Females of Childhood, Adolescent, Reproductive and Menopause Period. *Materia*

- Socio Medica*, 33(2), 114. <https://doi.org/10.5455/msm.2021.33.114-118>
- Ashori, M., & Ahmadian, Z. (2018). Investigating the Effectiveness of Incredible Years' Program on the Interaction of Mother-Child with Behavioral Disorder. *Psychology of Exceptional Individuals*, 8(30), 199-217. <https://doi.org/10.22054/jpe.2018.9276>
- Azimifar, S., Jazayeri, R. s., Fatehizade, M. s., & Abedi, A. (2018). The comparing the effects of parent management training and acceptance and commitment based parenting training on mother-child relationship among mothers who have children with externalizing behavior problems. *Family Counseling and Psychotherapy*, 7(2), 99-122. <https://doi.org/10.22034/fcp.2018.57613>
- Azizi, A., Fatehizade, M., Ahmadi, A., & Jazayeri, R. (2018). Effect of child-parent relationship therapy on parenting stress and empowerment of parents with children with Attention Deficit / Hyperactivity Disorder. *Family Counseling and Psychotherapy*, 8(1), 27-46. <https://doi.org/10.22034/fcp.2018.60855>
- Bahari, F., Fatehizadeh, M., Ahmed, A., Molavi, H., & Bahrami, F. (2011). Effectiveness of Couple Communication Skills Training (CCST) on Marital Conflicts amongst Conflicted Divorcing Couples. *Research in Clinical Psychology and Counseling*, 1(1). <https://doi.org/10.22067/ijap.v1i1.1924>
- Barra, S., Turner, D., Müller, M., Hertz, P. G., Retz-Junginger, P., Tüscher, O., Huss, M., & Retz, W. (2022). ADHD symptom profiles, intermittent explosive disorder, adverse childhood experiences, and internalizing/externalizing problems in young offenders. *European Archives of Psychiatry and Clinical Neuroscience*, 272(2), 257-269. <https://doi.org/10.1007/s00406-020-01181-4>
- Cappe, E., Bolduc, M., Rougé, M.-C., Saiag, M.-C., & Delorme, R. (2017). Quality of life, psychological characteristics, and adjustment in parents of children with Attention-Deficit/Hyperactivity Disorder. *Quality of Life Research*, 26(5), 1283-1294. <https://doi.org/10.1007/s11136-016-1446-8>
- Chang, E. S. (2016). Kirogi Women's Psychological Well-Being: The Relative Contributions of Marital Quality, Mother-Child Relationship Quality, and Youth's Educational Adjustment. *Journal of Family Issues*, 39(1), 209-229. <https://doi.org/10.1177/0192513X16632265>
- Chronis-Tuscano, A. (2022). ADHD in Girls and Women: A Call to Action – Reflections on Hinshaw Et al. (2021). *Journal of Child Psychology and Psychiatry*, 63(4), 497-499. <https://doi.org/10.1111/jcpp.13574>
- Cornacchio, D., Sanchez, A. L., Coxe, S., Roy, A., Pincus, D. B., Read, K. L., Holaway, R. M., Kendall, P. C., & Comer, J. S. (2018). Factor structure of the intolerance of uncertainty scale

- for children. *Journal of anxiety disorders*, 53, 100-107. <https://doi.org/10.1016/j.janxdis.2017.07.003>
- DeVincent, C. J., & Gadow, K. D. (2009). Relative clinical utility of three child symptom inventory-4 scoring algorithms for differentiating children with autism spectrum disorder vs. attention-deficit hyperactivity disorder. *Autism Research*, 2(6), 312-321. <https://doi.org/10.1002/aur.106>
- Emerman, C. (2017). *The relationship among spousal interactions, forgiveness, conflict, and marital satisfaction*. Hofstra University. <https://search.proquest.com/openview/a9e125f9f5ca1fdafd82d6899c984de4/1?pq-origsite=gscholar&cbl=18750>
- Honarvaran, N., Ghaderi, Z., & Ghobadi, K. (2011). A Comparison of Woman State Bank Employees and Housewives' Patterns of Marital Communication and Marital Conflicts (A Case Study of Shiraz). *Quarterly Journal of Woman and Society*, 2(7), 103-122. https://jzv.marvdasht.iau.ir/article_1194.html
- Ismail, R., HAN, A., & Yusoff, F. (2015). ASSESSING THE RELATIONSHIP BETWEEN QUALITY OF LIFE AND MARITAL SATISFACTION AMONG MALAYSIAN MARRIED COUPLES. *e-BANGI Journal*, 10. <https://core.ac.uk/download/pdf/84306764.pdf>
- Jafari, A., Samadi Javaheri, M., & Hesampour, F. (2017). The Comparison of Quality of Mother-Child Relationship and Anger Self-Regulation Skill Between Mothers of Normal and with ADHD Students. *socialwm*, 5(4), 13-24. <http://socialworkmag.ir/article-1-201-en.html>
- Javani, L. (2016). study on relationship between child-parent conflict and student's academic self- concept with their life satisfaction. *counseling journal*, 14(56), 25-44. <http://iranccounseling.ir/journal/article-1-51-en.html>
- Javdan, M., Samavi, W., & Farshad, M. R. (2018). Correlation between Couples' Mutuality Afflicted to Conflict with Marital Satisfaction and the Mediating Role of Life Quality. *jhpm.ir*, 7(5), 55-63. <http://jhpm.ir/article-1-943-en.html>
- McCoy, K., Cummings, E. M., & Davies, P. T. (2009). Constructive and destructive marital conflict, emotional security and children's prosocial behavior. *Journal of Child Psychology and Psychiatry*, 50(3), 270-279. <https://doi.org/10.1111/j.1469-7610.2008.01945.x>
- Mousavi, S. S. (2016). Effect of Positive Thinking Training on Life Satisfaction and Sense of Meaning in Life of Mothers of Children with Externalized Disorders. *Biannual Journal of Applied Counseling*, 5(1), 63-80. <https://doi.org/10.22055/jac.2016.12589>
- Musavi, S. M., Samavatyan, H., & Nouri, A. (2018). The Effectiveness of Relationship Enhancement Program (REP) and Quality of Work Life (QWL) Programs on Marital Conflicts & Marital Instability of Dual-Career Couples Considering the spillover Role. *Psychological Achievements*, 25(2), 1-20. <https://doi.org/10.22055/psy.2019.26932.2159>
- Musavi, S. V., Abdolkarimi, M., Khosrojavid, M., & Kusha, M. (2012). The Efficacy of the Management Behavioral Training on the Levels of Marital Satisfaction in the Mothers of ADHD Children. *gums-med*, 20(80), 74-82. <http://journal.gums.ac.ir/article-1-122-en.html>
- Nejat, S., Montazeri, A., Holakouie Naieni, K., Mohammad, K., & Majdzadeh, S. R. (2006). The World Health Organization quality of Life (WHOQOL-BREF) questionnaire: Translation and validation study of the Iranian version. *sjsph*, 4(4), 1-12. <http://sjsph.tums.ac.ir/article-1-187-en.html>
- Ohaeri Jude, U., & Awadalla Abdel, W. (2009). The reliability and validity of the short version of the WHO Quality of Life Instrument in an Arab general population. *Annals of Saudi Medicine*, 29(2), 98-104. <https://doi.org/10.4103/0256-4947.51790>
- Olia Zadeh, M., & Raeisi, Z. (2017). Effectiveness of Solution-oriented Teaching on Marital Conflicts and Life Quality in Couples in Isfahan. *Community Health Journal*, 11(Issue 3 , 4), 1-10. <https://doi.org/10.22123/chj.2018.85341>
- Pollo, C. F., Miot, L. D. B., Meneguim, S., & Miot, H. A. (2018). Factors associated with quality of life in facial melasma: a cross-sectional study. *International Journal of Cosmetic Science*, 40(3), 313-316. <https://doi.org/10.1111/ics.12464>
- Ros, R., & Graziano, P. A. (2018). Social Functioning in Children With or At Risk for Attention Deficit/Hyperactivity Disorder: A Meta-Analytic Review. *Journal of Clinical Child & Adolescent Psychology*, 47(2), 213-235. <https://doi.org/10.1080/15374416.2016.1266644>
- Sadati, S. E., Mehrabizadeh Honarmand, M., & Soodani, M. (2021). The causal relationship of differentiation, neuroticism, and forgiveness with marital disaffection through mediation of marital conflict. *Iranian Journal of Family Psychology*, 1(2), 55-68. https://www.ijfpjournal.ir/article_245498.html https://www.ijfpjournal.ir/article_245498_12d53b73956e7b2bc8041e2c2f870548.pdf
- Sanner, C. M., & Neece, C. L. (2018). Parental Distress and Child Behavior Problems: Parenting Behaviors as Mediators. *Journal of Child and Family Studies*, 27(2), 591-601. <https://doi.org/10.1007/s10826-017-0884-4>
- Shahbazi, M., & Khademali, G. (2018). The study and comparison of marital satisfaction, quality of life, happiness and life expectancy among married women with either less or more than five years of marital. *Biannual Journal of Applied Counseling*, 8(2), 39-54. <https://doi.org/10.22055/jac.2018.27623.1639>
- Teo, T., & Noyes, J. (2014). Explaining the intention to use technology among pre-service teachers: a multi-group analysis of the Unified Theory of Acceptance and Use of Technology. *Interactive Learning Environments*, 22(1), 51-66. <https://doi.org/10.1080/10494820.2011.641674>

- Tonga, E., & Düger, T. (2008). Factors affecting low back pain in mothers who have disabled children. *Journal of Back and Musculoskeletal Rehabilitation*, 21, 219-226. <https://doi.org/10.3233/BMR-2008-21401>
- van der Geest, I. M., van den Heuvel-Eibrink, M. M., Passchier, J., van den Hoed-Heerschop, C., Pieters, R., & Darlington, A.-S. E. (2014). Parenting stress as a mediator of parents' negative mood state and behavior problems in children with newly diagnosed cancer. *Psycho-Oncology*, 23(7), 758-765. <https://doi.org/10.1002/pon.3475>
- Vasilopoulou, E., & Nisbet, J. (2016). The quality of life of parents of children with autism spectrum disorder: A systematic review. *Research in Autism Spectrum Disorders*, 23, 36-49. <https://doi.org/10.1016/j.rasd.2015.11.008>
- Wan Yunus, F., Liu, K. P. Y., Bissett, M., & Penkala, S. (2015). Sensory-Based Intervention for Children with Behavioral Problems: A Systematic Review. *Journal of Autism and Developmental Disorders*, 45(11), 3565-3579. <https://doi.org/10.1007/s10803-015-2503-9>
- Whalen, C. K., Odgers, C. L., Reed, P. L., & Henker, B. (2011). Dissecting daily distress in mothers of children with ADHD: An electronic diary study. *Journal of Family Psychology*, 25(3), 402-411. <https://doi.org/10.1037/a0023473>