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Structural Relationships of Fathers' Involvement and Parenting Stress of Mothers of Autistic Children with the Mediation of Family Functioning, Social Support, and Resilience

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Abstract

Abstract

Considering the specific characteristics of autism spectrum disorder, parents (especially mothers) are under a lot of pressure. It is important to identify the factors which help reduce this pressure. Therefore, the present study examined the structural relationships of fathers' involvement and mothers' parenting stress with the mediating role of family functioning, resilience, and social support in mothers of autistic children. The research method was descriptive-correlational and a structural equation model was used. Among the autism schools in Tehran, four schools were randomly selected and 276 volunteer mothers participated in the research study. They were asked to fill out Phetrasuwan and Miles' (2009) Parenting Stress Scale: Autism, Olson et al.'s (1985) Family Adaptability and Cohesion Evaluation Scale, Conner and Davidson's (2003) Resilience Scale, Zimmet et al.'s (1988) Multidimensional Scale of Perceived Social Support, and Fathers' Involvement Questionnaire. Data were analyzed using Smart PLS software (version 3.2). The results indicated that fathers' involvement and resilience had a direct negative effect on mothers' parenting stress. In addition, fathers' involvement had an indirect effect on mothers' parenting stress through the mediation of family functioning ($p < 0.05$). A significant relationship was also observed between family functioning and mothers' resilience. According to the obtained results, it seems that fathers' involvement as an external factor and resilience as an internal factor played a role in predicting parenting stress ($p < 0.05$). In addition, the adaptive functioning of the family could strengthen the role of fathers' involvement in reducing mothers' stress. The results can be used in predicting the parenting stress of mothers of autistic children.

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Introduction

Raising a child with autism spectrum disorder (ASD) can put too much stress on parents (Hu et al., 2019). These families experience more stress than families with normal children or with children with other special needs (Brei et al., 2015). Although these findings are not unexpected given the chronic nature of the challenging behaviors associated with ASD, they emphasize the importance of identifying the factors which may contribute to the stress of parents and the extent to which such stress affects parenting behaviors (Keenan et al., 2017). Parenting stress is defined as a complex structure which includes behavioral, cognitive, and emotional components; it is a combination of the characteristics of the child, parents, and situational components that are related to the evaluation of the individual's role as a parent (Everly & Laing, 2002). Parenting stress is also described as the pressures experienced while performing child care activities (Rao & Beidel, 2009). Mothers should shoulder the burden; they bear the greatest responsibility (Kobayashi et al., 2012). However, the father, as a member of the family, can play an important role in supporting the mother and helping her reduce her stress and anxiety (Laxman et al., 2015). Fathers' involvement in childcare appears to be associated with lower stress, fewer depressive symptoms, and greater marital satisfaction in both mothers and fathers (May et al., 2015; Thullen & Bonsall, 2017). Furthermore, in an interventional program which supported fathers' involvement, it was found that the fathers' involvement led to the reduction of marital conflicts, parental anxiety, and strictness, and the emergence of positive outcomes for the child (Pruett et al., 2019) .

Family functioning itself can act as one of the main variables for parents' adaptation to such conditions (e.g., adaptation facilitating resources) (McStay, et al., 2014; Pozzo et al., 2014). It also acts as a mediator in the relationship between stress and family distress. For example, research has shown that family hardiness partially mediates the relationship between stressful life events and family distress (Weiss et al., 2013). Some studies also indicated that social support can be a significant mediator between parenting stress and life satisfaction (Lu et al., 2018). A study on parents with a disabled child showed that parenting stress, social support, and resilience are significantly related to each other, and the mediating role of social support in the relationship between parenting stress and parental resilience is confirmed (Zhao et al., 2021). Resilient parents are more able to cope with stress; social support is a key factor in family resilience (Johnson & Simpson, 2013). Resilience is a process of interactive adaptation that facilitates coping with the adversity related to neurological and psychological factors (Feder et al., 2019) and the individual's social and environmental contexts (Ameis et al., 2020). Previous studies indicated that mothers of children with ASD have more psychological distress and caregiving burden (Estes et al., 2013), health-related problems (Fairthorne et al., 2015), lower levels of resilience (Ilias et al., 2018), and problems in different areas of family life (Meadan et al., 2010).

According to the literature, no research has been conducted on the role of fathers in reducing the stress and mental health of mothers in Iran. Since fathers can play a vital role in improving the health of the family and the mother, it is important to investigate this issue. Nevertheless, the role of effective mediators in the relationship between these two variables is neglected. Moreover, due to the little and at the same time contradictory research on the factors related to the mental health of mothers of ASD children, there is a gap in this field. Thus, the current study aimed to find out if there were structural relationships between fathers' involvement, family functioning (cohesion and balanced flexibility), resilience, parenting stress, and perceived social support in mothers of ASD children.

Methodology

The statistical population included volunteer mothers with children with ASD in Tehran in 2023. The sample included 276 mothers of children with ASD who were selected through the following way: first, four centers and schools were randomly selected from centers and schools related to ASD children (i.e., 10 centers and schools).

Then, mothers who volunteered were evaluated for participating in the study. Actually, the sampling method was volunteer or self-selection sampling. The inclusion criteria included being a mother, having a child with ASD (diagnosed by the psychiatric team), being a member of autism centers and associations, and being at least 20 and at most 50 years old. The exclusion criteria were divorce or the absence of the father, severe mental disorders of the mother, and distorted information.

To collect data, Phetrasuwan and Miles' (2009) Parenting Stress Scale: Autism, Olson et al.'s (1985) Family Adaptability and Cohesion Evaluation Scale, Conner and Davidson's (2003) Resilience Scale, Zimmet et al.'s (1988) Multidimensional Scale of Perceived Social Support, and Fathers' Involvement Questionnaire were used. Data were analyzed using Smart PLS software (version 3.2).

Results

Descriptive analysis showed that 50% of the studied mothers were in the age range of 39-48 years. Most of the mothers (39.1%) had a diploma and 79% of them were housewives. Furthermore, the duration of the marital life of 55.8% of mothers was between 11 and 20 years. Most mothers (54.3%) had two children. Moreover, 89.9% of autistic children were boys and 56.5% of them were in the age range of 11-20.

Table 1. Descriptive statistics of the variables

Variable	Mean	Std. deviation	Skewness	Kurtosis	Cronbach's alpha
Father's involvement	28.41	9.71	.157	-.686	.877
Social support	50.12	18.1	-.347	-.712	.939
Family functioning	89.02	12.51	-.400	.094	.921
Resilience	79.91	20.16	-.219	-.506	.953
Parenting stress	98.78	24.67	-.804	.361	.954

According to Table 1, all the questionnaires had an appropriate Cronbach's alpha. The degrees of skewness and kurtosis of the research variables were in the range of +1 to -1 which indicated a relatively normal distribution of the data. The use of the Kolmogorov-Smirnov test also confirmed the normality of the data related to the two variables of mothers' parenting stress and resilience ($p \geq 0.05$).

A negative correlation was observed between fathers' involvement and mothers' parenting stress ($r = -0.251$, $p = 0.001$); however, no correlation was evident between fathers' involvement and social support. In addition, fathers' involvement had positive correlations with family functioning ($r = 0.219$, $p = 0.001$) and mothers' resilience ($r = 0.156$, $p = 0.001$). Moreover, the amount of social support had positive correlations with family functioning ($r = 0.528$, $p = 0.001$) and mothers' resilience ($r = 0.299$, $p = 0.001$) while it had a negative relationship with the amount of parenting stress of mothers ($r = -0.248$, $p = 0.001$). Family functioning had a positive relationship with mothers' resilience ($r = 0.564$, $p = 0.001$) while it had a negative relationship with mothers' parenting stress ($r = 0.395$, $p = 0.001$). Finally, there was a negative relationship between mothers' resilience and parenting stress ($p = 0.001$, $r = -0.512$). Figure 1 shows the path coefficients of the model.

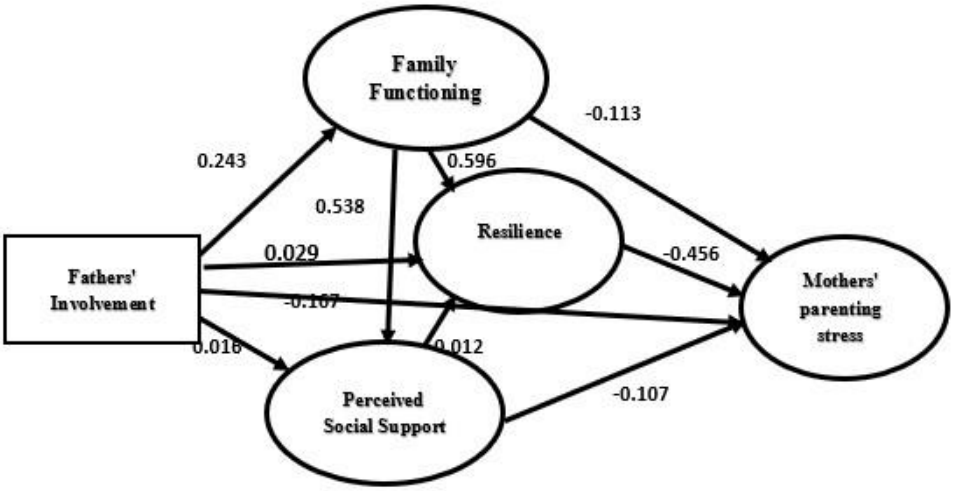


Figure 1, path coefficients of the model

The Coefficient of Determination (R2) values for parenting stress, resilience, perceived social support, and family functioning were 0.315, 0.357, 0.281, and 0.056, respectively. In general, they showed a favorable explanation of endogenous variables through exogenous variables. Regarding the goodness of fit of the model, SRMR index value was equal to 0.082 and NFI was equal to 0.362, which indicated the appropriate fit of the model. The CV-Community index of the hidden variables was positive for all constructs. Thus, the developed model was adequate and suitable. The value of GOF (Goodness-of-fit) for the research model was equal to 0.32, which indicated a relatively strong fit of the research model.

Table 2. Direct and indirect effects of the model

Paths	B	T	P
Direct effect paths			
Resilience → Parenting stress	-.456	7.399	.001
Social support → Parenting stress	-.107	1.643	.101
Family functioning → Parenting stress	-.113	2.01	.05
Fathers' involvement→ Parenting stress	.167	2.752	.006
Indirect effect paths			
Family functioning → Resilience → Parenting stress	-.272	7. 102	.001
Fathers' involvement → Family functioning → Resilience → Parenting stress	-.066	3.357	.001
Social support→ Resilience → Parenting stress	.045	1.165	.09
Fathers' involvement → Resilience → Parenting stress	-.023	.906	.221

According to Table 2, fathers' involvement and resilience had direct effects on mothers' parenting stress. Family functioning had direct effects on perceived social support and resilience. Finally, fathers' involvement had a significant direct effect on family functioning. Other direct effects were not statistically significant. Furthermore, the indirect effect of fathers' involvement on parenting stress (through the mediations of family functioning and resilience) was significant. In addition, the effect of fathers' involvement on resilience (through the mediation of family functioning), the effect of fathers' involvement on social support (through the mediation of family functioning), and the effect of family functioning on parenting stress (through the mediation of resilience) were significant.

Conclusion

The results of the study showed that the amount of fathers' involvement had a direct negative role in predicting the parenting stress of mothers of children with ASD; increasing the amount of fathers' involvement decreased the amount of mothers' parenting stress. The above finding is consistent with some research studies (e.g., Sharabi & Marom-Golan, 2018; Wang et al., 2020). The research findings of Wang et al. (2020) indicated that parenting stress of both parents had a significant negative relationship with parental involvement and the quality of family life. In addition, fathers' parenting stress was indirectly related to mothers' perception of the quality of family life through participation in caring activities of the autistic child. Additionally, Sharabi and Marom-Golan (2018) showed that parental education positively predicted fathers' involvement.

Furthermore, the study showed that family cohesion and functioning had direct effects on the parenting stress of mothers of autistic children. This finding is consistent with the research results of Vahedparast et al. (2020) and Kavaliotis (2017); however, it does not match the results of Pastor-Cerezuela et al. (2021). The study by Vahedparast et al. (2020) showed that among the areas of parenting stress, there was a significant inverse relationship with the characteristics of the problematic child with adaptation, cohesion, and the total score of adaptation and cohesion. The results of the Kavaliotis' (2017) study indicated that there was a significant positive correlation between family communication and problem-solving using social and financial resources as well as important autism management strategies (e.g., maintaining a positive perspective and the ability to find meaning in problems) .

Another finding was the direct and negative role of mothers' resilience in predicting their parenting stress. In other words, through resilience scores, the amount of parenting stress of mothers could negatively be predicted. This finding supports the results of the research studies of Haroon Rashidi and Mansouri Rad (2017), Abdi and Narimani (2018), Zhao et al. (2021), Pastor-Cerezuela et al. (2021) and Halstead et al. (2018a); however, it is inconsistent with Halstead et al.'s (2018b) study.

Moreover, the study showed that fathers' involvement had a negative indirect role in predicting the parenting stress of mothers of autistic children through the mediation of family functioning. In other words, the amount of fathers' involvement had a positive effect on the functioning and cohesion of the family; increasing the functioning and cohesion of the family reduced the parenting stress in mothers. The current finding is in line with Wang et al.'s (2020) study which indicated that the parenting stress of both parents had a significant negative relationship with parental involvement and the quality of family life. In the present study, it was found that fathers' involvement not only had a direct effect on parenting stress but also played a role in reducing parenting stress through the positive effects on family functioning and cohesion. However, these effects were not confirmed through the perceived social support .

This study was not void of limitations. Some of the limitations included the lack of conditions for the random selection of mothers of autistic children and their voluntary participation, the length of measurement instruments, and the low level of mothers' motivation. The research results can be used in predicting and preventing parenting stress of mothers of autistic children as well as their educational and interventional programs. It is suggested that researchers re-examine the direct and indirect roles of perceived social support in parenting stress in future research.

Conflict of interest

This article is taken from a PhD dissertation in Psychology in Islamic Azad University, Qom branch, and there is no conflict of interest.

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