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## A Comparison Study about Association of Stress and Depression in Children's Mothers with and without Autism Spectrum Disorders (ASD)

Fariba Kiani<sup>1,\*</sup>, Mohammad Reza khodabakhsh<sup>2</sup>, Hamed Khastwo Hashjin<sup>3</sup>

<sup>1</sup>PhD in Psychology, Young Researchers and Elite Club, Shahrekord Branch, Islamic Azad University, Shahrekord, Iran.

<sup>2</sup>PhD in Psychology, Young Researchers and Elite Club, Mashhad Branch, Islamic Azad University, Mashhad, Iran.

<sup>3</sup>MSc Student in Education Management, Faculty of Psychology and Education Science, Allameh Tabataba'i University, Tehran, Iran.

### Abstract

#### Introduction:

When a child has a developmental disability, the parenthood stress can be onerous. Research on the parenting stress has addressed the parenting stress differences between children families with and without disabilities. The purpose of the current research was to examine the comparison of association of stress and depression in children's mothers recently diagnosed with and without autism spectrum disorders.

#### Materials and Methods:

In this semi-experimental study that was performed using both experiment and control groups, 15 mothers of children was recruited (biological mothers of children with autism spectrum disorders aged 6 years who's diagnosed were made less than 5 months prior to study) and was compared with 15 mothers of children without autism spectrum disorders were selected with using of available sampling method and randomly were replaced into two experimental and control groups. Parents completed a packet of questionnaire measuring demographics, parenting stress and depression. Data were analyzed using of spss<sub>16</sub> with descriptive statistics, t-test method.

#### Results:

Results of t- tests showed significant differences between the two groups for two variables ( $P < 0.05$ ). Mothers of children with an autism spectrum disorder generally report significantly higher levels of stress and depression than mothers of children without autism spectrum disorder.

#### Conclusion:

According to the findings of the present study, the investigation of parenting related stress and depression in mothers of children with autism spectrum disorder can provide valuable implications for clinicians to target at the predictors when providing assessment and intervention for children with ASD to improve their health parent.

**Key Words:** Autism, Depression, Parenting related stress.

#### \* Corresponding Author:

Dr. Mohammad Reza khodabakhsh, Young Researchers and Elite Club, Mashhad Branch, Islamic Azad University, Mashhad, Iran.

E-mail: khodabakhsh@ut.ac.ir.

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## Introduction

Researches support the popular opinion that parenting is extremely stressful (1). Autism spectrum disorders (ASD) are characterized by persistent dysfunctions in reciprocal social interaction and communication in multiple contexts, along with the presence of restricted, repetitive and stereotyped behaviors and interests (2). Epidemiological studies have concluded that the prevalence of ASD has increased substantially, from 4 to 5 per 10,000 during 1960s to approximately 1–2 % at present (3).

Researches in western countries concluded that parents of children with ASD reported significantly more stress than parents of children without disabilities and parents of children with other disabilities and chronic illnesses (4). The behaviors of children with ASD, such as odd and ritualistic behaviors, hyperactivity, and self-injurious behaviors, make it difficult for parents to interact with these children and would be emotionally painful for parents (5). Lecavalier and colleagues (2006) concluded that specific problematic behaviors, such as externalizing behaviors, were more predictive of parent stress than adaptive behaviors in children and adolescents with ASD (6).

Parenting stress is characterized as a relationship between the parent and the environment in which the parent appraises the demands of being a parent as exceeding one's resources, leaving the parent to feel she or he has difficulty playing the role of parent (7). Parenting stress is understood to be a mental feeling of "being trapped" by parenting responsibilities and it results from the perception that parenting requirements exceed an individual's resources. Complex parental duties involved in raising a child with a physical or developmental disability with the limitations of personal, physical, and financial resources are antecedents of this response. If a parent senses deficient skills when attempting the tasks of parenting, apprehension for both immediate and future failure in the role of parenting

can develop and lead to continual stress. Various sources of stress in parents of children with ASD have been characterized to include the unpredictability of aberrant or difficult to manage externalizing behaviors, ambiguity of diagnosis, and poor acceptance of stereotypical or repetitive behaviors by peoples and family members, and concern over the life-span duration of this diagnosis (8-13). Although researchers have focused on experiences of parents of preschoolers and adolescents (15) and adolescents and young adults (16) yet, little research has done to study the experience of stress in parents of children with autism; therefore, one of the issues studied in the present study is comparison of parenting related stress in mothers of children recently diagnosed with and without autism. Also, mothers of children with ASD report higher levels of depression than mothers of children with other developmental delays (17-19).

Problematic behaviors among children with ASD can affect mothers' psychological health, possibly contributing to elevated levels of parenting stress (20,21), depression and anxiety (22,23). Research about the parenting related stress is important as they provide a framework within which to identify key factors that may contribute to the experience of stress. Understanding what result to stress will then lead to more targeted interventions to support mothers and facilitate family functioning. Therefore it is valuable to centralize the current research on parenting related stress focused on families of children with ASD to explore whether or not they are experiencing the most stress in comparison to other families.

Depression as the second most common psychological health problem, with at least 20% of people in developed countries, is the main cause of disability worldwide (24). It is one of the most common reasons to treating health professionals, and epidemiological research indicates that its prevalence has been increasing (25). In comparison to

parents of typically developing (TD) children and parents of children with other disabilities, parents of children with ASD report more stress levels (26,27), and also they are prone to depression (28).

In attention to above materials, the aim of current research was to compare the parenting related stress and depression symptoms in mothers of children recently diagnosed with and without autism spectrum disorders.

**Materials and Methods**

The sample of the current study is composed of some of the mothers with children a recently referred to clinics and diagnosed autism spectrum disorders. The sampling method is based on the available sampling method of 15 mothers of children was recruited (biological mothers of children with autism spectrum disorders aged 6 years who’s diagnosed were made less than 5 months prior to study) and was compared with 15 mothers of children without autism spectrum disorders.

The entry criterion for this research is as follows: (1) Susceptibility to autism spectrum disorders and (2) Mothers willing to participate in this study, and the exclusion criterion for this research are as follows: (1) Not having autism spectrum disorders; (2) Mothers are not willing to participate in this study. After the selection of participants based on entry criterion, they were responded the questionnaires of the current research. The used questionnaires in this research were as follows:

**1) Parenting Stress Index-Short Form:**

The Parenting Stress Index- Short Form is

applied to assess parental stress due to parent characteristics, child characteristics, and their interactions. The parenting stress index-short form (PSI-SF) is a 36-items parental self-report measure used to assess parenting stress in 3 domains: parental distress, difficult child and parent–child dysfunctional interaction. Items are measured along a scale from 1 (strongly disagree) to 5 (strongly agree); so higher scores show higher levels of parenting stress. A score at or above the 85th percentile indicates clinically significant stress, while scores 15 to 85 indicate normal levels of stress (18).

**2)The Beck Depression Inventory–II(BDI-II):**

It is a 21-items inventory assessing the severity of depression and its symptoms. Each of the 21 self-report items is rated on four point scale (0–3). Higher scores reflect more and greater symptoms of depression severity (29). The Beck Depression Inventory Second Edition (BDI-II) is a reliable and valid measure of depressive symptomatology among community and psychiatric samples (30). Various BDI-II factor models are described later and have been reviewed comprehensively elsewhere (31).

In the current study, was used of descriptive statistics and the t-test for comparison of differences between two groups of mothers (mothers of children with and without autism spectrum disorders). Data were analyzed using SPSS 16 software and p-value less than 0.05 was considered statistically significant.

**Results**

The demographic characteristics of participants were presented in (Table.1).

**Table 1:** Demographic characteristics of mothers of children with and without autism spectrum disorders (n=30)

	groups	with autism	without autism
Age of mothers	20 to 25 years	4	1
	25 to 30 years	7	9
	30 to 35 years	4	5
Mothers’ marital status	Married	11	13
	Divorced	4	2
Mothers’ education	Not high school graduate	3	2
	High school graduate	8	7
	Some college	4	6

For comparing the parenting related stress and depression symptoms in mothers of children recently diagnosed with and without

autism spectrum disorders, used of t-test for independent groups (Tables 2,3).

**Table 2:** The comparison of the means of parenting related stress in mothers of children with and without autism spectrum disorders

Variable	M	SD	t	df	Sig.
Mothers of children with autism spectrum disorders	121.23	13.33	39.04	48	0.0001
Mothers of children without autism spectrum disorders	67.34	15.16			

Table 2 show that there was a significant difference between the means of parenting related stress in mothers of children with

and without autism spectrum disorders (P<0.001).

**Table 3:** The comparison of the mean of depression symptoms in mothers of children recently diagnosed with and without autism spectrum disorders.

Variable	M	SD	t	df	Sig.
Mothers of children with autism spectrum disorders	51.87	7.45	18.72	48	0.0001
Mothers of children without autism spectrum disorders	23.11	6.11			

As can be seen, there was a significant difference between the means of depression symptoms in mothers of children with and without autism spectrum disorders (P<0.001).

**Discussion**

The result of the current research showed there were significant differences between the means of parenting related stress and depression between two groups (mothers of children with and without autism spectrum disorders). This is consistent with the findings of the previous studies (32-35) and can be interpreted on the basis of the following possibilities:

Studies that focus on supporting parents in ways that can both reduce the stress related to parenting and increases responsive parenting behaviors for parents of very young children with ASD is in its infancy. Raising a child with autism spectrum disorder (ASD) is uniquely challenging to mothers and fathers. The children’s restricted social, communicative and emotional competencies, their uneven cognitive development, and their maladaptive behavior place high stress on parents of children with ASD (36). Mothers

of children with autism spectrum disorders totally report higher levels of stress and lower levels of parenting competence than parents of children without disabilities. This stress continuously increases and is chronic and persistent over time (37). Beer and colleagues (2013) concluded that high levels of parenting stress were related with increased levels of depressive symptoms, but perhaps parents of children with ASD who have increased depressive symptomatology do not seek psychotherapy (38). Experimental research show that mothers of children with an ASD experience more stress than those raising children with other developmental disabilities, or than those of typically-developing children (10,11). Negative outcomes have been predicted for mothers and fathers of children with ASD with high parenting stress levels, including the development of anxiety, anger, weak mental health, depression, and low marital intimacy. The limited social reacts of the child with an ASD were found to result in lower parent-child attachments, low maternal gratification, and high stress levels (12). Research has indicated that parenting stress may increase the risk for development of dysfunctional parenting behavior and

affective disturbances in both parent and child (13). Stress is a natural experience related to parenting and the responsibilities of caring for a child (16). However, stress related to caring for a child with a developmental disorder, such as ASD, may be qualitatively different from the stress experienced by parents of typically developing (TD) children. Various research have shown that mothers of children with ASD report consistently higher stress levels than mothers of TD children and children with other disorders, such as Down's syndrome or developmental delay (17). In several research, the evidence of more parenting stress, depressive feelings and impaired functioning in families of a child with ASD and the negative relationship between parenting cognitions and parenting stress and depression, have contributed significantly to the understanding of parents' experiences with a child with autism spectrum disorders. In these steps to identify parent's perspectives on the effect of having a child with ASD, an important factor has been neglected. Families of children with developmental disabilities often require a vast array of services and supports for them to create facilitating environments that: (1) Provide opportunities to meet the child's needs; (2) Foster the child's sense of well being in all areas (biological, psychological, social, cultural, and spiritual); and (3) Improve the child's sense of safety, predictability, stability, and control.

### Conclusion

The present research indicated that a young child with an ASD affect largely on mothers and personal life. Additionally, this study provided clear evidence of strong associations between mothers' symptoms of stress and depression with having a child with ASD. These results maintain the need for family interventions to take into consideration the ways in which parents experience parenting in a family with a child with ASD and other

TD children. To maximize intervention outcomes and to enhance the child's, maternal and family health, interventionists should become aware of interfering maternal feelings and cognitions, such as guilt or low self-efficacy beliefs. Future studies should investigate physiological stress markers among parents of children with ASD. Identifying differences in maternal and paternal physiological reactions to chronic stress may result in more effective delivery of supports for parents.

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