

# Psychological Stress in the Mothers of Children with Autism Spectrum Disorder in Terms of Some Variables

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**Abstracts:** This study aimed to detect the level of psychological stress in the mothers of children with autism spectrum disorder in terms of some variables, and to attain that, the researcher built a scale to measure psychological stress in mothers by referring to the theoretical literature. The study scale included (6) Dimensions included in (53) paragraphs. The validity of the tool was confirmed by presenting it to a number of arbitrators with experience in the field of psychological counseling, and making sure that it was stable using the stability coefficient Alpha Cronbach, which amounted to (0.98) for the scale in total, the researcher used the descriptive method to verify to answer the questions of the study, the researcher calculated the mean and standard deviations of the responses of the mothers of the subjects. The general mean of the total score of the psychological stress scale was average with a mean of (3.02), in addition to the presence of significant differences at the level of significance ( $0.05 = \alpha$ ) in the degree of psychological stress in mothers with autism spectrum disorder due to the variable of the educational level of the mother, marital status and the severity of disability, where the (8.213), the maternal stress scale showed the absence of a statistically significant above depending on the variable of disability severity and its value was (8.532). In light of the results of the study, the researcher made a number of recommendations to alleviate psychological stress in the mothers of children with autism spectrum disorder, and work on developing strategies to solve the problem of psychological stress in the mothers of people with autism spectrum disorder by referring to previous studies and taking experiences from them, in addition to holding training courses for mothers on how to deal with their children with autism spectrum disorder.

**Keywords:** Psychological Stress, Autism Spectrum Disorder.

## 1. INTRODUCTION

Attention was drawn to the psychological state that fathers and mothers are going through because they are responsible for raising their children and taking them out to live in society in a way that contributes to its construction and development, and they often face a problem during this, so it was necessary for fathers and mothers to get family experience that helps them with these problems and relieve psychological pressure in the best ways without affecting the family's life activities, and one of the issues that concern psychological stress in families related to diagnosis of one of their children with a type of disability that may affect the parents and family members negatively (Muhammad, 2018).

It can be said that when a new child is born, family life changes significantly and this requires each of the family member adapting the new situation (Kandel & Merrick. 2003). raising a young child is full of events and progressing that require adaptation. Just as stipulated the early childhood period is stressful for all mothers, but it may be more difficult for those who suffer from developmental delays in their children (Mello et al, 2022).

In case the family has a child with disabilities, it will face many challenges and difficulties that will lead to a change in roles and thus affect their private and work life and their future expectations. Subsequently they take on other responsibilities and burdens such as special care, educational services, medical treatments and supportive devices, which negatively affects the mental and psychological health of parents. As well as it is noteworthy that economic difficulties also contribute to increasing the stress experienced by families with children with disabilities (Yilmaz, 2020).

Psychological stress of parents is defined as: a set of processes that lead to psychological and physiological reactions arising from attempts to adapt to the requirements of parenthood (Voliovitich et al., 2021).

The Lazarus (1993) theory of psychological stress proposed four main components, namely: a causal event, a cognitive assessment of the event, adapting processes, and reflexes (Lin, et al., 2021).

Psychological stress in parents significantly affects mental, emotional and behavioral health, when parents cannot meet the needs of their children will negatively affect marital, family and professional life. The psychological stress for parents is a psychological reaction that parents may have when they engage in a parenting role that is often experienced as a negative reaction to parental obligations, especially when the demands of parenthood are incompatible with parental expectations or when parents do not have sufficient ability to do so (Holly et al., 2019).

It is perceived to psychological stress as it is a normal experience related to upbringing and responsibilities associated with a child care that has a developmental disorder, such as ASD, which could be qualitatively different from the psychological stress experienced by parents with normal growth child (TD) (McStay et al., 2014).

Children with autism spectrum disorder (ASD) and their families, especially their mothers, face many challenges. The difficulties in obtaining quality care, financial burden, puberty issues and their children's behaviors can lead to great stress for mothers (El-Monshed & Amr, 2021), children with autism spectrum disorder (ASD) suffer from deficits in communication and social interaction, restricted and repetitive behaviors, interests and activities and because of these characteristics their mothers face constant challenges and multiple demands in their daily life, (Wang et al, 2022), which leads to a weakness in the physical and the mental health, also more likely that they are vulnerable to higher divorce rates in society. (DePape & Lindsay, 2015).

Studies have shown that mothers of children with autism spectrum disorder suffer from higher levels of psychological stress than mothers of children with normal development and even from mothers of children with other disabilities (such as down syndrome, cerebral palsy or intellectual disability (Mello et al, 2021), likewise the study (Li, 2022) showed that mothers of autism spectrum disorder severe sufferers have much higher levels of stress, anxiety and depression than fathers. The prevalence of moderate to severe anxiety and depression in mothers was 13.8% and 13.1%, respectively, while the corresponding prevalence for the fathers was 9.9% and 8.0%, respectively.

A study (Grebe et al, 2020) finds the results showed about significant differences between stress and coping in self-reported mothers and fathers. Understanding the differences between parents' perspectives has research and clinical implications for working with families raising children with autism spectrum disorder.

Caring for a child with autism spectrum disorder (ASD) negatively affects the comfort of parents that because of the difficulties and behavioral problems that these children face. Raising a child with autism spectrum disorder results in chronic stress for parents. (McStay et al., 2014).

Children with autism spectrum disorder (ASD) and their families, especially their mothers, face many and renewed challenges on a daily basis, due to the nature of the disease, in which children need special care and thoughtful methods and strategies to deal with children with autism spectrum disorders. These difficulties in obtaining several problems may lead to the inability of parents to provide quality care for their children, in addition to the financial burden that may be a major reason why parents are unable to meet the needs of children with autism spectrum, in addition to the issues of puberty and the behaviors of their children.

Numerous studies have shown that psychological stress (PS) can affect the well-being of children due to the reduced effectiveness of early interventions on intellectual, educational and adaptive functioning. In recent decades, research on (PS) in families of children with autism has increased, and autism symptoms, cognitive impairment, emotional and behavioral problems, as well as socio-demographic features have been identified as variables likely to occur stress in families (Scibelli et al., 2021).

Considering parenting stress with parents of autistic children as a stress reaction, there can be two possible causal factors: one is the severity of their children's autism symptoms due to their association with parenting stress and the other is the child's behavior problems due to the fact that many individuals with autism spectrum disorder

show simultaneous behavioral problems, including internal and external behavioral problems. Internal behavioral problems include emotional reactivity, anxiety / depression, physical complaints, and withdrawal. Reciprocal behavioral problems include hyperactivity, impulsivity, and aggressive behavior. Both types of behavioral problems have been found to be synchronously associated with parenting stress or distress in parents of children with autism. (Lin et al., 2021).

Parents of children with autism spectrum disorders (ASDs) are at risk of increased stress levels parents may also be at increased risk of developing psychological symptoms, such as depression and anxiety. Parents of children with ASD face many of the potential challenges and daily stresses associated with raising an autistic child including child behavior problems and low levels of social reciprocity and sociability (Estes et al., 2013).

Through the work of the researcher in the field with this group, she noticed that the families of children with autism spectrum disorder suffer from psychological pressures that negatively affect the course of their lives, especially mothers, where she noticed that they suffer from psychological pressures represented by feelings of despair, frustration, anxiety, and others are not receptive to their sons disability, they are still at the stage of denial, guilt, rejection and non-acceptance, and this aggravates their psychological and social problems, which will reflect negatively on their children, hence the idea of this study came to highlight this category of mothers to find out the level of pressure they are experiencing in an effort to find out their stress levels.

Therefore, the problem of the current study came out, which includes the following questions:

- What is the degree of psychological stress in mothers with autism spectrum disorder?

- Are there significant differences at the level of  $(0.05 = \alpha)$  in the degree of psychological stress in mothers of children with autism spectrum disorder due to the educational level of the mother, marital status, severity of disability?

### 1.1. Terminology

Psychological stress: it is a state of severe psychological stress that occurs due to external factors affecting the individual, which leads to his imbalance and behavior disorder (Abdullah, 2010).

Psychological stress of parents: it is defined as the perception of "distress or discomfort caused by the demands associated with the parenting role (Scibelli et al., 2021) and **procedurally defined** as the score obtained by the examinees on the psychological stress scale developed by the researcher for the purposes of achieving the objectives of the study.

Autism spectrum disorder: it is a neurodevelopmental disorder characterized by deficits in social communication and deficits in social interaction, as well as restricted and repetitive patterns of behavior, interests or activities (American Psychiatric Association, 2013)

## 2. METHODOLOGY

For the purpose of achieving this study, the descriptive method was used to detect the level of psychological stress in mothers of sons with autism spectrum disorder.

**2.1. The Sample Of The Study**: the sample was selected according to the simple random sampling method, where (206) mothers were selected, the sample was distributed as shown in Table No. 1.

**Table (1) distribution of sample community by study variables**

Variables	Category	No.	Percentage
Educational qualification	High school and below	83	40.3%
	Diploma	33	16%
	Bachelor and higher	90	43.7%
	Total	206	100%
Marital status	Married	189	91.7%
	Divorced or widowed	17	8.3%
	Total	206	100%
Severity of disability	Mild	90	43.7%
	Moderate	97	47.1%
	Severe	19	9.2%
	Total	206	100%

**2.2. Study Tool**

Psychological stress scale in mothers of children with autism spectrum disorder: after referring to the previous literature and studies related to the subject of the study, including (Amin, 2015; al-Deeb, 2016), it revealed that the scale consists of (53) paragraphs distributed on the following dimensions: (After the pressures of mothers resulting from the characteristics of the component of (14) paragraphs, after the pressures of mothers in organic terms (7) paragraph, the pressures of mothers in psychological and emotional terms (14) paragraph, the pressures of mothers in cognitive terms (7) paragraph, the pressures of mothers in family Terms (11) paragraph), and the answer ladder for the paragraphs of the scale is of a five-degree gradient, namely(very mild degree, mild degree, moderate degree, severe degree, very severe degree).

**2.3. Reliability of internal construction:** reliability means the internal construction of the questionnaire phrases: the extent to which all the paragraphs of the questionnaire are consistent with the dimension to which it belongs, that is, the phrase measures what it was designed to measure and does not measure anything else. Thus, the **Pearson correlation** coefficient was calculated between the degree of each of the dimension phrases and the total degree of the dimension to which this paragraph belongs and the total degree of the scale.

**Table (2) the coefficients of the correlation of the paragraphs of the scale with the dimension belonging to it and the total degree of the scale**

Paragraph	Correlation dimension	Total degree	paragraph	Correlation dimension	Total degree
1	.878**	.691**	28	.853**	.781**
2	.864**	.693**	29	.697**	.657**
3	.834**	.626**	30	.528**	.451**
4	.883**	.745**	31	.697**	.659**
5	.839**	.684**	32	.737**	.737**
6	.860**	.686**	33	.785**	.798**
7	.855**	.687**	34	.759**	.756**
8	.802**	.756**	35	.782**	.782**
9	.888**	.807**	36	.663**	.528**
10	.822**	.709**	37	.711**	.515**
11	.792**	.685**	38	.801**	.757**
12	.840**	.662**	39	.824**	.801**
13	.854**	.768**	40	.904**	.790**
14	.742**	.722**	41	.855**	.837**
15	.772**	.711**	42	.793**	.701**

Paragraph	Correlation dimension	Total degree	paragraph	Correlation dimension	Total degree
16	.804**	.746**	43	.778**	.596**
17	.904**	.711**	44	.737**	.629**
18	.871**	.614**	45	.646**	.510**
19	.814**	.588**	46	.706**	.605**
20	.853**	.606**	47	.746**	.626**
21	.686**	.358**	48	.655**	.660**
22	.696**	.553**	49	.884**	.689**
23	.796**	.705**	50	.923**	.713**
24	.750**	.615**	51	.888**	.671**
25	.724**	.664**	52	.792**	.681**
26	.803**	.726**	53	.792**	.581**
27	.845**	.760**			

\*\* Statistically significant at the significance level (0.01).

\* Statistically significant at the significance level (0.05).

It is clear from Table (2) that all the coefficients of the correlation of the paragraphs of the scale with the dimension belonging to it and the total degree of the scale are statistically significant at the level of (0.05 =  $\alpha$ ), where the correlations of the paragraphs with the dimension belonging to it ranged between (.528 and .923), and paragraph correlations with the total degree of the scale ranged from (.358 and .837), all these values are a statistical function and this indicates the consistency of the internal construction of the scale, so the scale will be from (53) paragraphs in its final form.

**Stability:** to confirm the stability of the psychological stress scale in mothers of children with autism spectrum disorder, stability was calculated using the coefficient "Alpha Cronbach", and the table (3) shows these results.

**Table (3) The coefficient of stability by the method of the alpha-kronbach coefficient for scale paragraphs**

Dimension	"coefficient "Alpha Cronbach
Maternal stress caused by the characteristics of the son's behavior	0.97
Maternal stress from the physically aspect	0.91
Maternal stress from the psychological and emotional aspect	0.94
Maternal stress from the cognitive aspect	0.90
Maternal stress from the domestic aspect	0.80
Maternal stress from the social aspect	0.90
The total degree of the scale	0.98

According to table (3) that the "kronbach Alpha" coefficient of the total score of the scale amounted to (.98), the coefficient of constancy came after the maternal stress caused by the characteristics of the son's behavior (.97), and the coefficient of stability of the dimension of maternal stresses in physical terms was reached (.91), and the stability coefficient was reached for the dimension of maternal stresses from a psychological and emotional aspect (.94), and the persistence coefficient of the cognitive dimension of maternal stress was reached (.90), and the coefficient of stability of the dimension of maternal stress from the domestic aspect was reached (.80), and the persistence coefficient of the distance of maternal stress from the social aspect was reached (.90), and these values indicate that the psychological stress scale in mothers of children with autism spectrum disorder has an acceptable degree of stability can relying on it in the field application according to the Nani scale, which was adopted (.70) minimum stability.

### 3. STUDY RESULTS AND DISCUSSION

#### 3.1. Study Results

This section includes a presentation of the results obtained in order to try to identify the degree of psychological stress in mothers of children with autism spectrum disorder, by answering the following questions.

**First: the results related to the answer to the first question, which is:**

**What is the degree of psychological stress in mothers of children with autism spectrum disorder?**

To answer this question, the mean and standard deviations of the responses of mothers of children with autism spectrum disorder were calculated on the psychological stress scale as shown in Table (4).

**Table (4) Mean and standard deviations of the responses of mothers of children with autism spectrum disorder on the psychological stress scale, ranked in descending order by mean.**

Rank	Axis	Mean*	Standard deviation	Degree
1	Maternal stress caused by the characteristics of the son's behavior	3.34	1.09	Moderate
2	Maternal stress from the physical aspect	3.13	1.23	Moderate
3	Maternal stress from the psychological and emotional aspect	2.97	1.03	Moderate
4	Maternal stress from the cognitive aspect	2.88	1.10	Moderate
5	Maternal stress from the domestic aspect	2.85	1.01	Moderate
6	Maternal stress from the social aspect	2.71	1.04	Moderate
	The total degree of the scale	3.02	0.92	Moderate

\*The maximum degree is (5)

Table (4) indicates that the total mean of the overall score of the psychological stress scale was moderate with an mean of (3.02), and came after the maternal stress caused by the characteristics of the son's behavior in the first rank with an mean of (3.34) to a moderate degree, followed by the second place after the stress of mothers from the social aspect with a mean of (3.13) to a moderate degree, came after the maternal stress from the social aspect in the third place with a mean of (2.97) to a moderate degree, came after the maternal stress from the cognitive aspect in the fourth place with a mean of (2.88) with a moderate degree, and came after maternal stress from the domestic aspect in fifth place with mean of (2.85) with a moderate degree and came after maternal stress from the physical aspect in sixth place with a mean (2.71) with a moderate score.

Where the result showed that the level of psychological stress for mothers of children with autism spectrum came moderate as shown in Table No. (4), the researcher explains the result that the maternal stress caused by the characteristics of the son's behavior to the difficulties that the mother faces in the difficulty of her son's interaction socially with family members, the difficulty of following a routine, the difficulty of her son's discomfort and his disorder when moving from one activity to another, and this leads to feel sad for him, the difficulty of understanding and responding to the feelings of others to her feeling of anxiety, the difficulty of self-care for a child himself, he needs attention and follow-up by his mother, and this leads to increase the burden of the mother and the psychological pressures on her.

**Second: the results related to the answer to the second question, which is: Are there significant differences at the level of (0.05 =  $\alpha$ ) in the degree of psychological stress in mothers of children with autism spectrum disorder attributable to the educational level of the mother, marital status, and the severity of disability?**

To answer this question, the mean and standard deviations of mothers' responses to the psychological stress scale were calculated depending on the mother's educational level, marital status, and disability severity, where an (Anova) analysis was used to find out the significance of differences in the total score of the scale, and multiple

variation analysis (MANOVA) was used to find out the significance of differences in the dimensions of the scale, as shown below.

**Table (5) Means and standard deviations of mothers ' responses on the psychological stress scale according to the study variables**

variables	Category	No.	Mean	Standard deviation
Mother's educational qualification	High school and below	83	3.69	0.67
	Diploma	33	2.85	0.80
	Bachelor and higher	90	2.48	0.75
	Total	206	3.02	0.92
Marital status	Married	189	2.94	0.88
	Divorced or widowed	17	3.96	0.78
	Total	206	3.02	0.92
Severity of disability	mild	90	2.68	0.84
	moderate	97	3.18	0.89
	Severe	19	3.83	0.67
	Total	206	3.02	0.92

The results in Tables (5) indicate that there are apparent differences in the mean of mothers ' estimates on the psychological stress scale depending on the mother's educational qualification, marital status, and disability severity, and to find out the significance of the differences, an ANOVA test was performed, and the results came as shown in Table (6).

**Table (6): The results of the ANOVA test to find out the significance of differences in the mean estimates of mothers on the psychological stress scale according to the study variables**

Source of variation	Total squares	Degree of freedom	Mean squares	F value	Level of significance
Mother's educational qualification	45.327	2	22.664	48.684	0.000*
Marital status	3.823	1	3.823	8.213	0.005*
Severity of disability	7.944	2	3.972	8.532	0.000*
Error	93.105	200	0.466		
Total rate	172.729	205			

Table (6) shows that there are statistically significant differences in the mean estimates of mothers on the psychological stress scale depending on the educational qualification of mothers, where the value of (F) (48.684) and at a significant level (.000), as shown in the table, there are statistically significant differences in the mean estimates of mothers on the psychological stress scale depending on marital status, where the value (F) (8.213) and at a significant level (.005), the mean for married mothers was lower than the mean for divorced or widowed mothers.

The table also shows that there were no significant differences in the mean estimates of mothers on the psychological stress scale depending on the severity of disability, where the value (F) (8.532) and at a significant level (.000).

To find out the source of the differences in mothers ' estimates on the psychological stress scale depending on the variables of the mother's educational qualification and the severity of the disability, a meta-comparison test was conducted and Table (7) shows these results.

**Table (7) (Scheffe) test for dimensional comparisons in the psychological stress scale according to the variable of the educational level of the mother**

Experience		difference between means (I-J)	Significance
I	J		
High school and below	Bachelor and higher	1.2119*	0.000
Diploma	Bachelor and higher	.3749*	0.028

\* Statistical significance at the level of (0.05 =high)

Table (7) shows that there are significant differences at the level of ( $\alpha=0.05$ ) in the psychological stress of mothers depending on the variables of the educational qualification between a high school and below category and below on the one hand and two categories of diploma and bachelor and higher on the other hand, the mean of the degree of psychological stress of mothers for a high school and below category and below was higher than the mean of the degree of psychological stress for two categories of diploma and bachelor and higher.

There were also significant differences in the psychological stress of mothers between the diploma category and the bachelor category and higher, and the mean of the degree of psychological stress of mothers for the diploma category was higher than the mean of the degree of psychological stress for the bachelor category and higher.

**Table (8) (Scheffe) test for dimensional comparisons in the psychological stress scale according to the disability severity variable**

Disability severity		difference between means (I-J)	Significance
I	J		
Mild	Moderate	-.5023*	0.000
Mild	Severe	-1.1491*	0.000
Mild	Moderate	-.6468*	0.001

\* Statistical significance at the level of (0.05 =high)

Table (8) shows that there are significant differences at the level of ( $\alpha=0.05$ ) in the psychological stress of mothers depending on the severity of disability variables between a mild disability group on the one hand and two moderate and severe disability groups on the other hand, and the mean of the degree of psychological stress of mothers for a mild disability group was less than the mean of the degree of psychological stress for moderate and severe disability groups.

There were also significant differences in the psychological stress of mothers between the category of moderate disability and the category of severe disability, and the mean of the degree of psychological stress of mothers for the category of moderate disability was lower than the mean of the degree of psychological stress for the category of severe disability.

To find out the significance of the differences in the dimensions of the scale, the means and standard deviations of the mothers' responses to the dimensions of the psychological stress scale were calculated according to the study variables and the multiple variation analysis test (MANOVA) was used as shown below.



**Table (9) Means and standard deviations of mothers ' responses on the dimensions of the psychological stress scale according to variables depending on the educational qualification level of the mother, marital status, and severity of disability.**

Category		The characteristics of the son's behavior	physical aspect	psychological and emotional aspect	cognitive aspect	domestic aspect	social aspect
High school and below	Mean	3.99	3.33	3.67	3.59	3.42	3.86
	Standard deviation	0.68	0.96	0.85	0.92	0.88	1.01
Diploma	Mean	3.2	2.42	2.69	2.76	2.87	3.02
	Standard deviation	1.04	1	0.92	1.1	0.83	1.25
Bachelor and higher	Mean	2.79	2.25	2.44	2.27	2.31	2.49
	Standard deviation	1.11	0.83	0.85	0.86	0.9	1.03
Married	Mean	3.28	2.61	2.89	2.79	2.76	3.01
	Standard deviation	1.09	1	1	1.08	0.98	1.19
Divorced or widowed	Mean	3.96	3.88	3.97	3.83	3.79	4.42
	Standard deviation	0.87	0.65	0.81	0.96	0.92	0.91
Mild	Mean	3.99	3.33	3.67	3.59	3.42	3.86
	Standard deviation	0.68	0.96	0.85	0.92	0.88	1.01
Moderate	Mean	3.2	2.42	2.69	2.76	2.87	3.02
	Standard deviation	1.04	1	0.92	1.1	0.83	1.25
Severe	Mean	2.79	2.25	2.44	2.27	2.31	2.49
	Standard deviation	1.11	0.83	0.85	0.86	0.9	1.03

The results in tables (9) indicate that there are apparent differences in the mean estimates of mothers on the dimensions of the psychological stress scale depending on the educational qualification of the mother, marital status, and the severity of disability, and to find out the significance of the differences, a multiple variation analysis test (MANOVA) was performed and the results came as shown in table (10).

**Table (10) the results of the multiple analysis test (MANOVA) to find out the significance of differences in the mean of mothers on the dimensions of the psychological stress scale depending on the educational qualification of the mother, marital status, and the severity of disability**

Source of variance	dimension	total squares	Freedom degree	Mean squares	F value	Level of significance
<b>The educational level of the mother</b> Value Wilks' Lambda 0.634 significance: 0.000*	First dimension	44.671	2	22.335	26.656	0.000*
	Second dimension	33.845	2	16.923	23.719	0.000*
	Third dimension	49.241	2	24.620	36.421	0.000*
	Fourth dimension	54.843	2	27.422	34.373	0.000*
	Fifth dimension	38.765	2	19.383	26.631	0.000*
	Sixth dimension	54.915	2	27.457	27.022	0.000*
<b>Marital status</b>	First dimension	0.357	1	0.357	0.427	0.514

Source of variance	dimension	total squares	Freedom degree	Mean squares	F value	Level of significance
<b>The value of Hotelling's 0.102 Significance: 0.004*</b>	Second dimension	8.164	1	8.164	11.444	0.001*
	Third dimension	4.469	1	4.469	6.611	0.011*
	Fourth dimension	3.904	1	3.904	4.894	0.028*
	Fifth dimension	5.813	1	5.813	7.986	0.005*
	Sixth dimension	12.062	1	12.062	11.871	0.001*
	<b>Severity of disability Value Wilks' Lambda 0.874 Significance: 0.009*</b>	First dimension	11.835	2	5.917	7.062
Second dimension		11.245	2	5.622	7.880	0.001*
Third dimension		6.886	2	3.443	5.093	0.007*
Fourth dimension		6.986	2	3.493	4.379	0.014*
Fifth dimension		2.734	2	1.367	1.878	0.156
Sixth dimension		8.048	2	4.024	3.960	0.021*
<b>Error</b>	First dimension	167.583	200	0.838		
	Second dimension	142.691	200	0.713		
	Third dimension	135.198	200	0.676		
	Fourth dimension	159.553	200	0.798		
	Fifth dimension	145.567	200	0.728		
	Sixth dimension	203.224	200	1.016		
<b>Total rate</b>	First dimension	243.782	205			
	Second dimension	221.449	205			
	Third dimension	218.415	205			
	Fourth dimension	249.339	205			
	Fifth dimension	209.632	205			
	Sixth dimension	310.238	205			

\* Level of significance ( $\alpha=0.05$ )

Table (10) shows that there are statistically significant differences in the mean estimates of mothers on the dimensions of the psychological stress scale depending on the educational level of the mother; where the value of the Wilkes Lambda (0.634) reached the level of significance (0.000), and the differences appeared in all dimensions.

The table shows that there are statistically significant differences in the mean estimates of mothers on the dimensions of the psychological stress scale depending on the marital status; where the value of Hotelling was (0.102) at the level of (0.004), and the differences appeared in all dimensions except after maternal stress resulting from the characteristics of the son's behavior, and the mean of married mothers was lower than the mean of divorced or widowed mothers in all dimensions.

The table also shows that there are statistically significant differences in the mean estimates of mothers on the dimensions of the psychological stress scale depending on the severity of disability; where the value of the Wilkes Lambda (0.874) reached a significant level (0.009), and the differences appeared in all dimensions except after maternal stress from the domestic aspect.

To find out the source of the differences in the mothers' estimates on the dimensions of the psychological stress scale depending on the variables of the mother's educational level and the severity of the disability, a meta-comparison test was conducted and table (11) shows these results.

**Table (11) Scheffe test for dimensional comparisons in the dimensions of the psychological stress scale according to the educational level variable**

Dimension	Education level		Different between means (I-J)	Significance
	I	J		
The characteristics of the son's behavior	High school and below	Diploma	.7905*	0.000
	High school and below	Bachelor and higher	1.1968*	0.000
	Diploma	Bachelor and higher	0.4063	0.095
Physical aspect	High school and below	Diploma	.9045*	0.000
	High school and below	Bachelor and higher	1.0764*	0.000
	Diploma	Bachelor and higher	0.1719	0.607
Psychological and emotional aspect	High school and below	Diploma	.9795*	0.000
	High school and below	Bachelor and higher	1.2281*	0.000
	Diploma	Bachelor and higher	0.2486	0.334
cognitive aspect	High school and below	Diploma	.8250*	0.000
	High school and below	Bachelor and higher	1.3203*	0.000
	Diploma	Bachelor and higher	.4952*	0.026
domestic aspect	High school and below	Diploma	.5419*	0.010
	High school and below	Bachelor and higher	1.1046*	0.000
	Diploma	Bachelor and higher	.5626*	0.006
Social aspect	High school and below	Diploma	.8445*	0.000
	High school and below	Bachelor and higher	1.3760*	0.000
	Diploma	Bachelor and higher	.5315*	0.037

\* Level of significance ( $\alpha=0.05$ )

Table (11) shows that there are significant differences at the level of ( $\alpha=0.05$ ) in all dimensions of the maternal stress scale depending on the variables of the educational level between a high school category and below on the one hand and two categories of diploma and bachelor and higher on the other hand, the mean of the degree of psychological stress of mothers for a high school category and below was higher than the mean of the degree of psychological stress for two categories of diploma and bachelor and higher.

There were also significant differences in the psychological stress of mothers between the diploma category and the bachelor category and higher in the cognitive, domestic and social dimensions, and the mean of the degree of psychological stress of mothers for the diploma category was higher than the mean of the degree of psychological stress for the bachelor category and higher.

**Table (12) (Scheffe) test for dimensional comparisons in the dimensions of the psychological stress scale according to the variable of disability severity**

Dimension	Disability severity		Different between (I-J)	Significance
	I	J		
The characteristics of the son's behavior	Mild	Moderate	-0.5947*	0.000
	Mild	Severe	-1.1596*	0.000
	Moderate	Moderate	-0.5649	0.051
Physical aspect	Mild	Moderate	-0.4923*	0.000
	Mild	Severe	-1.2997*	0.000
	Moderate	Moderate	-0.8075*	0.001
Psychological and emotional aspect	Mild	Moderate	-0.4602*	0.001
	Mild	Severe	-1.1242*	0.000
	Moderate	Moderate	-0.6641*	0.006
Cognitive aspect	Mild	Moderate	-0.5019*	0.001
	Mild	Severe	-1.1568*	0.000
	Moderate	Moderate	-0.6549*	0.015
social aspect	Mild	Moderate	-0.6094*	0.000
	Mild	Severe	-1.2207*	0.000
	Moderate	Moderate	-0.6113	0.056

\* Level of significance ( $\alpha=0.05$ )

Table (12) shows that there are significant differences at the level of ( $\alpha=0.05$ ) in the dimensions of the maternal stress scale depending on the severity of disability variables between a mild disability category on the one hand and two moderate and severe disability categories on the other hand, and the mean of the degree of psychological stress for mothers of a mild disability category was less than the mean of the degree of psychological stress for two moderate and severe disability categories in all dimensions.

There were also significant differences in the psychological stress of mothers between moderate disability group and a severe disability group in the dimensions physically, psychologically, emotionally, cognitively and socially. The mean of the degree of psychological stress of mothers for a moderate disability group was lower than the mean of the degree of psychological stress for a severe disability group.

The researcher attributes the results to the fact that the Arab mother is able to overcome the stresses of life regardless of how they are created on her, whether it is physical, domestic, cognitive, psychological or emotional stress.

#### 4. DISCUSSION OF THE RESULTS

Discussion of the results related to the first question: What is the degree of psychological stress in mothers with autism spectrum disorder?

To answer this question, the researcher built a psychological stress scale for mothers of children with autism spectrum, and classified the scale into six main axes, as follows, and calculated the mean and standard deviations of mothers' responses on the psychological stress scale. The results of the first question showed that the general mean of the total degree of the psychological stress scale appeared with an average degree, where the axis of maternal stress resulting from the son's behavior came in first place, and the axis of maternal stress physically ranked last.

Psychological stress were at the center of the mother's pressures resulting from the son's behavior at a high level, and the researcher explained this result due to the inability of the sons to perceive their interaction with the rest of the community naturally, and from the researcher's point of view, it may be due to a disorder in the sons when mixing with the rest of the community members, and this may negatively affect their behaviors and reactions to routine life matters, as the presence of a child in the family with special needs is one of the most difficult things that parents must deal with because it directly interferes with the character and behavior of the son, parents, especially mothers, face difficulty in determining the behaviors of their children as a result of their disability (Mohammed, 2018).

The level of psychological stress among the interlocutor (social, psychological and emotional, psychological, and family) came at an average level, and this result is due to the lack of sufficient knowledge of mothers about strategies and skills of dealing with their children with special needs in a way that helps her to face the difficulties and problems that may occur, and this leads to increased psychological pressure on the mother, so it was necessary to increase awareness and develop. Family skills and skills to accept the reality of mothers about how to deal with their children to relieve psychological pressure on them, avoid negative complications and ensure normal life as much as possible (Abdul Jalil, 2015).

As for the axis of psychological stress in mothers of the autism spectrum physically, it came in sixth place with an average degree, and this result can be attributed from the researcher's point of view to the fact that sons are born naturally and their development is most often completed in children naturally, and because of this, it does not constitute psychological pressure on mothers because their sons are different from other children, and through a study (Tabousha, 2019) confirms that children of the autism spectrum can have several genetic causes, biochemical causes, and one of the causes of the autism spectrum may be due to biological factors Children with autism usually have an acceptable and beautiful appearance, the general description of the characteristics of A child with autism does not differ much from the qualities of a healthy child in terms of his development and form.

Discussion of the results related to the second question: Are there significant differences at the level of significance ( $0.05 = \alpha$ ) in the degree of psychological stress in mothers of children with autism spectrum disorder attributable to the mother's educational level, marital status, and disability severity?

This question was discussed according to the results of the study variables, as follows:

#### **4.1. First: The Variable Educational Level of The Mother**

The results related to this question showed that there are statistically significant differences at the level of significance ( $\alpha=0.05$ ) due to the educational level of the mother, where the results showed that mothers who hold a diploma, bachelor's degree and higher had a lower percentage of psychological stress than mothers who hold a high school diploma, and from the researcher's point of view, this is due to the mothers' knowledge of strategies and skills on how to deal with their children with autism spectrum in scientific ways that ensure their proper development.

#### **4.2. Second: The Social Status Variable**

The results showed that there were statistically significant differences at the level of evidence ( $\alpha=0.05$ ) attributed to the married mothers category, where the psychological pressures of married mothers were less than widowed and divorced mothers, due to the distribution of tasks between mother and father in participating in the attention and care of their son with autism spectrum disorder, as married mothers from the researcher's point of view always try to seek knowledge about their children's behaviors and deal with them, and try to receive support and training to relieve psychological pressure on mothers in a way that regulates there, emotional and psychological responses and alleviates them, as the results of the study were consistent with a 2015 study that confirms that psychological stress on mothers who married are less than divorced mothers and widows in order to reduce the health, psychological, material and organizational burdens facing mothers of children with autism spectrum.

### 4.3. Third: Variable Severity Of Disability

The results showed that there were different deviations in the mean of the disability severity variable, as the results showed that children with autism spectrum disorders with a mild level had their mothers exposed to less psychological pressure than mothers whose sons are on the autism spectrum at the severe level, as the effort and psychological and emotional pressure exerted by the mother in dealing with her son at the mild level was less, so the mother had to face stressful stimuli and try to adapt and coexist with them and work to achieve her balance (Rahaimiya, 2016), and that the severity of the disability in a child with autism spectrum increases the mother's feeling of sadness, fear and anxiety about her son, which increases her feeling of psychological pressure and increases the possibility of the mother's inability to control her feelings and emotions, which increases her psychological and emotional stress (Tabousha, 2019).

### Recommendations

In light of the results of the previous study, the researcher made a number of recommendations:

1. Recommend conducting more research and studies related to the topic of psychological stress for mothers of children with special needs.
2. Recommend the establishment of special entertainment centers and places for children with special needs, which in turn may help to relieve psychological stress among mothers.
3. Providing counseling programs for mothers that provide them with skills, strategies and knowledge to deal with their children with autism spectrum disorders.
4. Work to increase the awareness of community members about the widespread diseases and how to deal with people with those diseases and provide material and moral support to facilitate the lives of individuals and ease the burden on fathers and mothers who have children with special needs.

### REFERENCES

- [1] Abdallah, M. (2010). Introduction to mental health. Jordan: Dar Al Fikr Publishers and Distributors.
- [2] Abdul-Jalil, I. (2015). Developing the skills of parental love to reduce the symptoms of E. coli in children with simple autism. Ain Shams University.
- [3] Al Deeb, A. (2016). Psychological pressures and the needs of mothers of children with autism disorder and the relationship between them in the United Arab Emirates, master's thesis in special needs education. United Arab Emirates University. UAE.
- [4] American Psychiatric Association (APA). (2013). Diagnostic and statistical manual of mental disorders, fifth edition (DSM-5). Washington. DC: American Psychiatric Association.
- [5] Amin, F. (2015). psychological stress for mothers of children with intellectual disabilities, master's thesis in psychological and educational counseling, Al-suwaden University of Science and technology, Sudan.
- [6] DePape, A. M., & Lindsay, S. (2015). Parents' experiences of caring for a child with autism spectrum disorder. *Qualitative health research*, 25(4), 569-583.
- [7] El-Monshed, A & Amr, M. (2021). Perceived stress among mothers of children with autism spectrum disorder in Egypt. *Journals Advances in Autism*. Volume 7 Issue 4. DOI:10.1108/AIA-02-2020-0014.
- [8] Estes, A., Olson, E., Sullivan, K., Greenson, J., Winter, J., Dawson, G., & Munson, J. (2013). Parenting-related stress and psychological distress in mothers of toddlers with autism spectrum disorders. *Brain and Development*, 35(2), 133-138.
- [9] Grebe, S. C., Mire, S. S., Kim, H., & Keller-Margulis, M. A. (2022). Comparing Fathers' and Mothers' Perspectives About Their Child's Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 52(4), 1841-1854.
- [10] Hoare, K. (2011). Strategies for dealing with psychological stress situations in working women in light of the changing family situation. *Journal of Humanities and Social Sciences*. 2(39- 54).
- [11] Wijaya, H. H. ., Dlis, F. ., Aridan, T. A. W. ., ., S., Subu, M. A. ., Aulia, D. ., ., S., & Syahban, A. . (2023). Basketball Learning Model for Children with Autism. *International Journal of Membrane Science and Technology*, 10(3), 684-691. <https://doi.org/10.15379/ijmst.v10i3.1588>
- [12] Holly, L. E., Fenley, A. R., Kritikos, T. K., Merson, R. A., Abidin, R. R., & Langer, D. A. (2019). Evidence-base update for parenting stress measures in clinical samples. *Journal of Clinical Child & Adolescent Psychology*, 48(5), 685-705.
- [13] Kandel, I., & Merrick, J. (2003). The birth of a child with disability. Coping by parents and siblings. *TheScientificWorldJOURNAL*, 3, 741-750.
- [14] Li, F., Tang, Y., Li, F., Fang, S., Liu, X., Tao, M., ... & Jiang, L. (2022). Psychological distress in parents of children with autism spectrum disorder: A cross-sectional study based on 683 mother-father dyads. *Journal of Pediatric Nursing*.
- [15] Lin, Y. N., Iao, L. S., Lee, Y. H., & Wu, C. C. (2021). Parenting stress and child behavior problems in young children with autism spectrum

- disorder: Transactional relations across time. *Journal of Autism and Developmental Disorders*, 51(7), 2381-2391.
- [16] McStay, R. L., Dissanayake, C., Scheeren, A., Koot, H. M., & Begeer, S. (2014). Parenting stress and autism: The role of age, autism severity, quality of life and problem behaviour of children and adolescents with autism. *Autism*, 18(5), 502-510.
- [17] Mello, C., Rivard, M., Morin, D., Patel, S., & Morin, M. (2022). Symptom severity, internalized and externalized behavioral and emotional problems: Links with parenting stress in mothers of children recently diagnosed with autism. *Journal of Autism and Developmental Disorders*, 52(6), 2400-2413.
- [18] Muhammad, S. (2018). The effectiveness of a cognitive-behavioral counseling program in reducing psychological stress in mothers of children with autism spectrum disorders. *Journal of the Faculty of education in Psychological Sciences*. 42 (15-102).
- [19] Khan, T. I., Jam, F. A., Akbar, A., Khan, M. B., & Hijazi, S. T. (2011). Job involvement as predictor of employee commitment: Evidence from Pakistan. *International Journal of Business and Management*, 6(4), 252.
- [20] Rajaimiya, A. (2016). Psychological stress and coping strategies in mothers of children with special needs (mental retardation). Al-Arabi bin Mehdi University-Umm Al-Baqi -.
- [21] Scibelli, F., Fucà, E., Guerrera, S., Lupi, E., Alfieri, P., Valeri, G., & Vicari, S. (2021). Clinical and individual features associated with maternal stress in young adolescents with autism spectrum disorder. *Autism Research*, 14(9), 1935-1947.
- [22] Tabousha, M. (2019). Strategies for coping with psychological stress in mothers of autistic children. Kasdi Merbah University-Ouargla -.
- [23] Voliovitch, Y., Leventhal, J. M., Fenick, A. M., Gupta, A. R., Feinberg, E., Hickey, E. J., ... & Weitzman, C. (2021). Parenting stress and its associated components prior to an autism spectrum disorder (ASD) diagnostic evaluation. *Journal of Autism and Developmental Disorders*, 51(10), 3432-3442.
- [24] Wang, H., Wang, Q., Hu, X., & Han, Z. R. (2022). Mindfulness and Stress Among Parents of Children with Autism Spectrum Disorder in China. *Journal of Autism and Developmental Disorders*, 52(5), 2035-2045.
- [25] Yilmaz, G. (2020). Mothers with disabled children: needs, stress levels and family functionality in rehabilitation. *Scandinavian Journal of Caring Sciences*, 34(2), 524-532.

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