

# EFFECTIVENESS OF A FAMILY COUNSELING PROGRAM IN REDUCING STRESS IN MOTHERS OF CHILDREN WITH AUTISM SPECTRUM DISORDER

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## ABSTRACT

*The current study aimed to investigate the effectiveness of a family counseling program in reducing psychological stress among mothers of children with ASD. The study sample consisted of (30) mothers of autistic children. The study was applied in the first semester of 2019/2020 where a semi-experimental method was used and a psychological stress measure was designed for mothers of children with ASD. The results revealed statistically significant differences for the mothers of children with ASD in the city of Jeddah (Saudi Arabia) on the psychological stress scale, in support of mothers in the experimental group who underwent the counseling program. This indicates a significant practical effect of the counseling program in reducing stress levels.*

**Keywords:** Counseling Program, Families, Stress, Mothers of Children With Autism Spectrum Disorder

## INTRODUCTION

Autism spectrum disorder (ASD) is defined as a disorder that manifest in childhood, and children suffer from isolation and self-lockup. They are characterized by insufficient social and emotional interaction, insufficient verbal and nonverbal communication, frequent stereotypic deportment, as well as limited and specific activities and interests. Education and caution of people with ASD is very difficult and stressful to the family as a whole, particularly the parents as they incur the trouble of education and psychological stress as well as the stresses resulting from the child (Al-Othman, Al-Bellaawi, 2012; Lieghead, 2012).

The disability of children increment the psychological, social and economic pressure on the life of the family, which indicates that the child's disability leads to creating an atmosphere of family misery as a result of the parents of the child's failure to achieve their hopes, which increment the stress on the home added to the family's feeling of losing the support of society and the support of competent regime in gain to negative attitudes and irrational number thoughts toward disability (Ashakhes, Al-Sartawi, 1998, 39).

The family, especially the mother, is the closest to communicating with the (ASD) tiddler, and the most affected by their disability which exposes her to great and unlimited stress including tike care and financial and family pressures, as the mother's dream of having a healthy child is destroyed, which leads to her exposure to more tension and situations in addition to her thinking about the future of her child.

The birth of a child with (ASD) creates great pressing on the mother, and among the causes of these pressures, the ambiguity, and blur of the actual recognition of this disorder, causing misinterpretation of the conduct, where it is stigmatized with words that may have a negative impact on psychological construction, including naughty, impolite, violent. As such, the female parent suffers from a permanent flavor, externally and internally, of the unfitness to fulfill her mission towards him and

Also, psychological stress is measured through indicant: such as depression, social drug withdrawal and emotional state of parent, marital problems, and family conflicts. (Al-Hadidi, Al-Smadi, Al-Khatib (1994). The study of Kuusikko gouging et al., 2013) showed that mothers of children ASD manifested a highschool stratum of anxiety and social phobia, which appears in the form of organic fertilizer symptoms, and concerns.

The limitation of social uminium interaction can predict maternal tension (Allen, Bonulses & Buiber, 2013). The stresses experienced by the mother also affect the whole family and affect harmony and marital relations (Al-Othman, Al-Biblawi, 2012) and the mother human relationship with the rest of the family extremity, the concern and nurturing of other children, and increasing additional essence on the family's resources and capacity to a stage that may exceed the family's ability to bear (Nasr, 2012). Also, the negative impact of the mother may extend on to the child's various developmental, cognitive, behavioral, and social aspects (Al-Othman, Bibli, 2012). Both

(Allen, et al., 2013; Rivard, et al., 2014) indicate that the behavioral characteristics of children with an ASD, communication trouble, and social interaction have a profound consequence on mothers.

Mothers also face multiple and severe challenges and stresses. Mothers of children with ASD recorded the higher level of an accent than those Students with other disabilities, and mothers of ordinary children, as in the study of( Benson & Dewey, 2008; Eapen et al., 2014; Hayes & Watson, 2013).

Studies have confirmed that the presence of a child with ASD addition s the stress of the female parent, as indicated by the studies of Abdel Mulla, 2019; Youssef Essam, (2018); Mohamed Saber, (2018); Yasmine, (2016); Abdel Hamid, Ashraf, (2016); and Mansouri, (2013). Also, the counseling programs for female parent of children with ASD help the mother to increase the degree of consciousness provided by the early intervention substance of attention, and these are matters that assure the mother of participating in the programs provided by these centers, and the mother remains acquainted with her child's program and the progress made by means of the program (Ashakhes, Al-Sartawi, 2002).

Through my reading and area visit to centers and high society specialized in children with ASD I found that there was an urgent and necessary need to adopt a curriculum to reduce tenseness on this mathematical group of mothers so that they can help and provide support to the family and children with ASD. Several studies have been conducted which address the effectiveness of behavioral cognitive counSELLing for mothers of children with ASD. Alpasha (2016) conducted a study aimed at examining the effectiveness of behavioral cognitive guidance in reducing psychological stress in the autistic child's mother: a grammatical case study. The application was carried out to a mother of an autistic child, and the results showed that the behavioral cognitive counseling course of study resulted in reducing the mother's stress.

Abu Seif's study (2018) also aimed at finding out the effectiveness of a family counseling program for mothers of Students with ASD in reducing tenseness , and the study was conducted on a sample of (30) mothers of Autism . The event showed that the stress of mothers of feMale autistic Students is high parallel to mothers of male autistic Students.

Al-Deeb's study (2016), addressed the stress and the needs of the mother of children with ASD and the family relationship between them in the UAE. The sample consisted of (174) mothers of autistic Students. The results pointed out to the most important root of psychological stress among mothers and the presence of a positive degree relationship between stress and needs.

The study of Rivard et al (2014) also aimed to describe the parental tension of both parent of children with ASD at the beginning of the intensive early intervention course of study for behavior and to compare and analyze parental stresses among parents. The study included (118 fathers and 118 mothers) in the city of Kik, Canada, and the results showed that the stress level among parents is higher than that among mothers, and there was a correlation between the severity of stress of mothers and fathers.

Likewise, Allen et al., (2014) conducted a study aimed at assessing parental tension among mothers of fathers of children with ASD. The sample included (124) participants, and the effect revealed that tension among mothers can be predicted by substance of the social fundamental interaction property while stress among fathers can be predicted through senses and cognitive awareness dimensions.

Leithead's study (2013), aimed to know the stratum of parental tenseness among parents of children with autism spectrum disorder and compare their levels with symptoms of ASD. The sample included (106) individuals, (7) parents and (99) mothers of autistic children, and the results showed that the parents of autistic children showed a higher level of stress than the parents of ordinary children, and there is a positive correlation between the level of parental stress and symptoms of autism.

The study of Kuusikko-gauffin et al, (2013) aimed to compare the symptom of social anxiety among parent of (ASD) children and parents of ordinary children. The sampling included (131) parents of autistic children and (597) parents of ordinary children in Finland and the outcome showed that parents of autistic children suffer from Social phobia and anxiety and it is more common thereof.

Most of the previous studies agreed that the parents suffer from focus resulting from symptoms and presence of an autistic child in the family as in the studies of (Abu Saif, 2018; Al-Deeb, 2016; Rivard et al., 2014; Allen et al., 2014; Leithead, 2013; Kuusikko-gauffin et al, 2013). Also, the results of some studies showed that mothers are more susceptible to stress than fathers as stated in the subject area of (Abu Saif, 2018; Al-Deeb, 2016). Also, in some studies, it was stated that fathers' psychological stress were higher than mothers' as in Leithead's study (2013), Rivard et al 2014). The studies also showed that the stress in parents of children with ASD were higher than the stress in parents of ordinary children, as in the study of (Kuusikko-gauffin et al, 2013; Leithead, 2013). Such studies have shown the extent of suffering of parents due to their son's illness and the manifestation of symptoms of autism on him/her compared to formula children.

Moreover, the point of this study is to examine the effectiveness of a family counseling programme in reducing focus among female parents of children with ASD. Furthermore, the importance of the current study lies in reducing stress for mothers of children with ASD, and the importance was in looking at some aspects of psychological stress and providing a theoretical account about relieving the stress among mothers of children with ASD, and to be a reference for researchers studying the stresses because it addressed psychological concepts that have implications on mothers. Its importance is also due to the useful information is provided to children with ASD. The electric current research problem was incorporated in disclosing the effectiveness of a family heuristic programme to reduce pressure among mothers of children with ASD, from which the following motion has stemmed out.

- There were factually noteworthy contrasts at the level of ( $\alpha = 0.05$ ) among the mean scores of moms of children with ASD in the city of Jeddah, who have experienced a counseling program decrease push , and the mean scores of mothers in the control group who did not have any counseling program applied to them, in the situation -test on the stress scale " .

- There were statistically significant differences at the level of ( $\alpha = 0.05$ ) between the experimental group's performance averages on the stress scale in the post-test, and between their mean scores on the same scale in the sequential test one month after the conclusion of the program?

## METHOD AND PROCEDURES

### Study Methodology and Design

The researcher used the experimental method with pre-post measurements of experimental and control groups, and a sequential pertaining to the experimental group only. The design of the present study can be expressed as follows:

R G1: O1 X O2 O3

R G2: O1 - O2 -

Where: (G1): is the observational gather. (G2): is the control group. (R): is distribution irregular (O1): is pre-measurement on the think about scale. (X): discussion. (-) without treatment, (O2): ) is post -measurements on the think almost scale.

### Study Population

The **investigate populace comprised** of all mothers of children with ASD in Jeddah, Saudi Arabia. The study instrument was applied to all mothers, and the sample was made up of the mothers who scored high on the stress scale where (30) mothers who had the desire to participate in the program were chosen to represent the members of the study sample. The study members were randomly divided into two groups: the experimental group of (15) mothers (the family counseling program group) and the control group of (15) mothers (without any counseling intervention). They were underwent the study procedures in the pre-post, sequential measurements one month after the application of post-measurement. Table (1) illustrates this.

*Table (1): Conveyance of Test Individuals Agreeing to Bunch Sort and Time of Estimation in Pre, Post and Consecutive Tests*

Group Type	Time of measurement		
	Pre-test	post-test	sequential test
Experimental group	15	15	15
Control group	15	15	-
<b>Total</b>	30	30	15

## Study Instrument

### To achieve the research objectives

To achieve the goals of the study, which is to reveal the effectiveness of a counseling program to reduce stress among mothers of children with autism spectrum disorder in Jeddah (Saudi Arabia), the researcher used a psychological stress measure:

### Psychological Stress Scale:

The psychological stress scale was used by (Othman, Al-Bilawi, 2012; Al-Sartawi and Al-Shakhs, 1996) with the aim of detecting stress in mothers of children with ASD. The scale, in its unique shape, had psychometric property that qualify it for utilize within the current ponder

**The clear legitimacy of the resolution** and its **measurements** has been confirmed by showing it to a gather of mediators **with skill** and specialty, to **specific** their views on the accuracy and validity of the resolution, and in the light of their perceptions and conclusions, the number of items of the scale after the arbitration was (42) items.

### Indications of Validity and Reliability of the Stress Scale

#### First: Apparent Validity

The clear legitimacy of the scale was confirmed by submitting it to a group of (8) referees with experience and specialization in the field of special education and educational sciences in the faculties of education in Saudi universities. It was also presented to (10) specialists of ASD, to deliver their suppositions on the accuracy and legitimacy of the resolution. substance in terms of:

the degree of estimation measure, clarity of item, language definition, and their appropriateness to degree what it was set for, as well as to include, correct or erase what they regard fitting of the things

In light of the comments and opinions of the arbitrators that were surveyed after a assembly with a number of them, the proposed amendments were made to the items of the scale of attitudes towards voluntary work programs, and thus the number of the scale thing set to (42) things after intervention.

### Second: Construct Validity:

In order to confirm the validity indicators of the build, the resolution was associated to a pilot sample consisting of (20) mothers from outside the targeted study sample, and the development legitimacy markers were deliberate utilizing the Pearson relationship coefficient, to find the amount of the thing relationship with the measurement, and the values of the relationship coefficient of the overall score of the tabulate, as shown in Table (2).

*Table (2): The Amount of Relationship Coefficients Through the Things of the Stretch Resolution On the One Hand, And The Overall Score of the Scale and The Areas Relating to It On the Other Hand*

Organic Problems			Psychological And Nervous Pressures			Social And Family Pressures			Concern For The Future Of The Child		
Correlation with:			Correlation with:			Correlation with:			Correlation with:		
Item No.	Field	Scale	Item No.	Field	Scale	Item No.	Field	Scale	Item No.	Field	Scale
1	0.611*	0.500*	9	0.844*	0.675*	19	0.698*	0.572*	35	0.796*	0.690*
2	0.635*	0.523*	10	0.693*	0.578*	20	0.618*	0.507*	36	0.802*	0.628*
3	0.758*	0.574*	11	0.745*	0.602*	21	0.821*	0.615*	37	0.718*	0.651*
4	0.784*	0.541*	12	0.790*	0.605*	22	0.827*	0.624*	38	0.760*	0.684*
5	0.825*	0.594*	13	0.819*	0.649*	23	0.792*	0.604*	39	0.719*	0.617*
6	0.803*	0.579*	14	0.732*	0.710*	24	0.682*	0.633*	40	0.778*	0.684*
7	0.816*	0.616*	15	0.794*	0.699*	25	0.794*	0.750*	41	0.804*	0.582*
8	0.588*	0.676*	16	0.814*	0.725*	26	0.798*	0.648*	42	0.775*	0.579*
			17	0.793*	0.678*	27	0.798*	0.661*			
			18	0.762*	0.684*	28	0.776*	0.636*			
			29	0.739*	0.524*						
			30	0.805*	0.666*						
			31	0.766*	0.684*						
			32	0.764*	0.670*						
			33	0.755*	0.694*						
			34	0.781*	0.690*						

\* Statistically significant level (0.05)

It is from Table (2) that the values of the coefficients of relationships of things of the field of organic problems ranged among (0.588 - 0.825) with their field, and amid (0.500 - 0.676) with the full degree of the Resolution, which the values of the coefficients of relationship of the items of the field of psychological and nervous stresses ranged among (0.693 - 0.844) with its field, and among (0.725-0.602) with the full resolution of the resolution, and that the values of coefficients of relationship things in field of social and family pressures ranged among (0.618-0.827) together with field, and among (0.507-0.750) with the full score of the Resolution, which the values of coefficients of relationship of the things of concern for the future of the child ranged among (0.718 - 0.804) with their field, and among (0.579 - 0.690) with the full score of the Resolution. All of these values were factually critical at the level of (0.05), and the correlation coefficient with the full degree of the resolution was higher than (0.30), and a criterion was adopted to accept the item that its correlation coefficients is not less than (0.30), according to what indicated.

Hattie (1985), and in this way all things of the scale were acknowledged, and therefore the resolution in its final form was of (42) items

Also, the amount of the Inter-Correlation coefficient for the measurements push resolution were calculated, utilizing the Pearson relationship coefficient, as appeared in Table (3).

The amount of the stress resolution dimension coefficients with the scale as a entirety, and the Inter-Correlation coefficients of the scale dimensions

correlation with:	Organic problems	psychological and nervous stresses	social and family stresses	concern for the future of the child
psychological and nervous p stresses	1.			
social and family stresses	0.520*	0.575*		
concern for the future of the child	0.498*	0.554*	0.728*	
Total scale	0.827*	0.845*	0.839*	0.846*

\* Statistically significant level (0.05)

It is noted from Table (3) that the values of the Inter-Correlation coefficients among the estimations of the extend resolution extended midst (0.498 - 0.767), and the values of the relationship coefficients among the estimations and the resolution as a whole ranged amidst (0.827 -0.846), and all of which are measurably noteworthy, and this is an sign of the legitimacy of the development of the scale.

### Reliability of the Stress Scale

To appraise the unwavering quality of the interior consistency of the push resolution, the Cronbach's Alpha reliability factor was utilized at information at primary application of the exploratory test of (20) mothers of children with ASD from outside the study sample. And in arrange to confirm the unwavering quality of the scale and its measurements, the scale was re-applied to the previous exploratory sample, using the Test-Retest method, with a time difference of two weeks between the primary and moment applications, and at that point it was calculated utilizing the Pearson relationship coefficient amidst the essential and moment applications and after that it was calculated utilizing the Pearson relationship coefficient between the essential and minute applications on the exploratory test, as appeared in table (4).

*Table (4): Pearson Correlation Coefficient Values and Internal Consistency Accuracy Coefficient Values (Cronbach Alpha) Of The Sub-Dimensions of the Stress Resolution and The Total Scale*

Field	Cronbach Alpha reliability coefficient values	Pearson correlation coefficient	Number of items
Organic problems	0.705	0.724	8
psychological and nervous stresses	0.767	0.737	10
social and family stresses	0.828	0.746	16
Concern for the future of the child	0.814	0.713	8
Total scale	0.845	0.845	42

It is obvious from Table (4) that the values of the Pearson correlation coefficients amidst the primary and moment implementation of the sub-domains of the stretch scale extended amidst (0.713-0.746), whilst esteem of the Pearson relationship coefficients coefficient amidst primary and moment applications of the full scale was (0.778).

Also, the values of the internal consistency reliability coefficients of the domains of the psychological stress scale ranged amidst (0.705 - 0.828), while the values of the internal consistency reliability coefficients of the total scale was (0.845), where these values are a great marker of the unwavering quality measurements while the scale as an entire.

### Correction of the Psychological Stress Scale

The psychological stress scale in its final form consisted of (42)things conveyed over four areas: the field of organic problems which is measured by items (1-8), the field of psychological and nervous stresses, measured by items (9-18), the field of social and family stresses, measured by items (19-34), and the field of concern for the future of the child, measured by items (35-42), to which the understudy reacts concurring to a five-point scale which incorporates the taking after

choices: (**Always**, and is given 5 degrees when the scale is corrected, **often**, and is given 4 degrees, **sometimes**, is given 3 degrees, **rarely**, is given two degrees, **never happens**, and is given one degree). Where higher the score is, the higher the level psychological stress. And to determine the level of psychological stress among the study sample members their reactions were classified into three levels agreeing to the number juggling cruel : moo (less than 2.34), normal amidst (3.66 - 2.34), high (Greater than 3.66).

### **Psychological Stress Reduction Program:**

The counseling program utilized within the current ponder was designed as part of psychological counseling methods, and group counseling strategies and techniques have also been used. The program included a set of counseling skills that help mothers to improve their stress level. It was built on the basis of similar programs that targeted the variables of the study. The researcher prepared it based on a number of specialized scientific sources and references in this field, such as studies of (Othman, El-Belawy, and Alshakhs). The program's (11) sessions were implemented over a period of (9) weeks, where the session time ranged between (90-120) minutes according to the content of each session. Note that the researcher is the one who implemented the program.

The following is an explanation of the content of those sessions:

In the sessions, the acquaintance is reached between the researcher and the mothers, and between the mothers themselves, and to learn about the mothers' expectations about the program, as well as the mothers get acquainted with the program, and the expected role of the researcher and the mothers, besides removing barriers and breaking the deadlock between participants.

The general objective of the program is discussed and presented, clarifying the mechanism of work and the adopted strategies such as: guiding methods which is relaxation and meditation, exercises to relieve stress, which creates an appropriate atmosphere for mothers to feel love, security, safety and psychological comfort, and help mothers to solve problems, where the problem is determined whether it is psychological or socio-economic problem and possible alternatives are put forward and appropriate decision-making steps are taken. Mothers are also helped to increase self-confidence and to express their feelings and deal with others' feelings and feelings of pain and sadness. And how to help them express feelings, insight, and emotional release, and use the role-play in psychological counseling, because of its effect in creating sympathy for others by creating an atmosphere of acceptance and respect.

The logical validity of the counseling program based on the guiding methods was verified by presenting it to a group of specialized arbitrators, i.e. (6) professors of psychological counseling, to determine its suitability for the objectives for which it was prepared, and the arbitrators found that the program was appropriate with some adjustments, and in light of the proposals, the required amendments were made and the program was implemented afterwards.

## Study procedures

The consider was carried out agreeing to the taking after steps:

- (1) Determination of the area in which the research was used, and the target group including much mothers who frequently visited the centers and charities in Jeddah
- (2) research instruments were prepared accord to the technical steps used in the test thinks about, and guarantee their legitimacy, unwavering quality, and appropriateness for execution.
- (3) Holding gathering with some of the members of the charitable societies and the targeted centers to guarantee participation and exactness in conducting the considers.
- (4) Application of the think about rebellious to the group of moms as a prologue reaching to the consider test individuals ( $n = 30$ ) who score the least scores on the two consider scales.
- (5) Completion of the methods for distinguishing the ponder test individuals during collecting measurement data around them, getting their endorsement and the rise to irregular dispersion of the ponder test ( $n = 30$ ) into two bunches: the exploratory and the control bunches, as a preamble to applying the counseling program to the individuals of the exploratory gather.
- (6) stratify post- measure utilizing the two study consider measure, and after that gathering and analyzing information, ( in arrange to compare the execution of the test bunch with the pursuance of the control bunch, to know the impact that the counseling program has cleared out, and after that apply the successive estimation a month after the conclusion of the program to individuals of the exploratory gather as it were, and analyze and display the comes about of the field think about, at that point talk about and come up with suggestions that are fitting to the comes about that were come to, and get ready the consider in its last shape.

## Study Variables:

### Independent variable

It is the treatment strategy used with the two study groups: the experimental collection to which the pilot program was applied, and the control group which no program was applied to it.

### Dependent variable

It is the mothers' scores on the psychological stress scale.

### Statistical processing

To answer the study questions, the (SPSS) program was to calculate the arithmetic mean and standard deviations of the reactions of the individuals of the think about test on the pre and post estimation and the sequential measurement, and the use of (ANCOVA) method, in addition to the use of (paired samples t -test).

## Study Results and Discussion

This study aimed to check the effectiveness of the counseling program in reducing psychological stress among mothers of children with ASD in city of Jeddah (Saudi Arabia), by answering the following questions:

To begin with: Comes about related, which reads: "Are there statistically significant differences at the level of ( $\alpha = 0.05$ ) between the mean scores of mothers of children with ASD in Jeddah, to whom the counseling program was applied to reduce psychological stress, and the mean scores of mothers in the control group who did not have any counseling program applied to them in the post-test on the stress scale?"

Reply this address, the cruel and standard deviations of the pre-post estimation of the level of psychological stress among the moms of with ASD Jeddah were calculated, concurring to the group (empirical, control), as appeared in table (5).

*Table (5): Arithmetic Implies and Deviations of Responses of Individuals of the Exploratory and Control Groups On Psychological Stress Scale in Within the Pre-Posttest Concurring to Gather Variable*

Variable	Group	Experimental Group		Control Group	
		N = 15		N = 15	
		Arithmetic Mean	Standard deviation	Arithmetic Mean	Standard deviation
Stress	Pre-measurement	3.768	0.146	3.797	0.170
	Post-measurement	2.637	0.143	3.722	0.160

It is evident from Table (5) that there are clear contrasts between the number implies of the scores of the scores the members of the experimental and control collection on the stretch scale. To confirm the substance of the clear differences, the one way ANCOVA was utilized, after under consideration the pre- estimation scores on the scale as a whole, for each of the two groups, as an ANCOVA, as appeared in Table (6).

Table (6): Analysis of One Way ANCOVA Associated with The Stress Scale Within the Post-Test Concurring to The Gather Variable

Source of variance	Total squares	Degrees of freedom	Mean of Total squares	F	Statistical significance	Effect size $\eta^2$
Pre-measurement of stress	0.059	1	0.059	2.950	0.134	0.006
Group	8.568	1	8.568	424.109	0.000*	0.940
Error	0.545	27	0.020			
Total	9.172	29				

\* Statistically significant at the level of ( $\alpha = 0.05$ )

It is obvious from Table (6) that there are measurably noteworthy differences at the level of ( $\alpha = 0.05$ ) between the two arithmetic means of the post-measurement of the responses of moms of children with ASD in Jeddah on the stress scale, attributed to the group (experimental, control) in favor of mothers in the experimental group who underwent the counseling program, where the esteem of F was (424.109) and statistically significant of (0,000), and the value of the effect size of the program ( $\eta^2$ ) was (0.94), this means that the counseling program contributed (94%) to the reduction of the psychological stress of the moms of children with ASD in Jeddah, indicating that there was a significant practical effect of the counseling program in reducing the levels of psychological stress.

deviations were besides calculated of the pre-post-measurements of the reaction of the ponder test individuals on the sub-domains of the extend scale concurring to the gather variable (experimental, control), as appeared in Table (7).

Table (7): Number-crunching brutal and standard deviation of the reactions of the Individuals of the Experimental and Control Groups on the Fields of the Stress Scale in The Pre-Posttest According to The Gather Variable

		Experimental Group		Control Group	
		N = 15		N = 15	
Field	Group	Arithmetic Mean	Standard deviation	Arithmetic Mean	Standard deviation
<hr/>					

<b>Organic Problems</b>	<b>Pre-measurement</b>	<b>3.725</b>	0.196	3.675	0.182
	<b>Post-measurement</b>	<b>2.683</b>	0.279	3.708	0.215
Psychological and Nervous stresses	<b>Pre-measurement</b>	<b>3.700</b>	0.204	3.747	0.250
	<b>Post-measurement</b>	<b>2.627</b>	0.153	3.732	0.270
<b>Social and family stresses</b>	<b>Pre-measurement</b>	<b>3.758</b>	0.197	3.792	0.200
	<b>Post-measurement</b>	<b>2.621</b>	0.197	3.713	0.208
<b>Concern for the future of the child</b>	<b>Pre-measurement</b>	<b>3.917</b>	0.362	3.958	0.386
	<b>Post-measurement</b>	<b>2.500</b>	0.222	3.908	0.352

It is obvious from Table (7) that there are clear contrasts among the number juggling of the scores of the individuals of the empirical and control groups on the fields stress, confirm quintessence of the clear contrasts, one way MANCOVA was utilized to find out the effect of the counseling program on each field of the stress scale, after taking into consideration the scores of the pre-measurement on the fields of the stress scale for each of the two groups, as a concomitant variable, as appeared in table (8).

*Table (8): Analysis of (MANCOVA) of the fields of stress scale in the post-test according to the group variable*

Source of variance	Area	Total squares	Degrees of freedom	Mean of Total squares	F	Statistical significance	Effect size ( $\eta^2$ )
Pre-measurement	Organic problems	0.165	1	0.165	2.901	0.101	0.108
	Psychological and nervous stresses	0.091	1	0.091	3.012	0.095	0.112
	Social and family stresses	0.094	1	0.094	2.858	0.113	0.093
	Concern about the future of the child	11.955	1	11.955	184.695	0.000*	0.885
Group	Organic problems	7.735	1	7.735	135.908	0.000*	0.850
	Psychological and nervous stresses	8.043	1	8.043	265.882	0.000*	0.917

Hotelling's Trace=32.241  Sig=0.000	Social and family stresses	7.420	1	7.420	226.82 2	0.000*	0.904
	Concern about the future of the child	11.955	1	11.955	184.69 5	0.000*	0.885
Error	Organic problems	1.366	24	0.057			
	Psychological and nervous stresses	0.726	24	0.030			
	Social and family stresses	0.785	24	0.033			
	Concern about the future of the child	1.553	24	0.065			
Total	Organic problems	9.615	26				
	Psychological and nervous stresses	10.755	26				
	Social and family stresses	10.089	26				
	Concern about the future of the child	17.296	26				

\* Statistically significant at the level of ( $\alpha = 0.05$ )

between the two math implies of the post-measurement of the responses

It is obvious from Table (8) that there are factually noteworthy contrasts at the level of ( $\alpha = 0.05$ ) between the two math implies of the post-measure of the responses of the study sample members on the fields of the stress scale according to the group (experimental, control), in favor of mothers in the experimental group who underwent the counseling program, as the effect size of the program ( $\eta^2$ ) in the field of organic problems was (85%), and the effect size of the program in the field of psychological and nervous stresses was (91.7%), and the impact size of the program

in the field of social and family stresses was (90.4%), and the effect size of the program in the area of concern for the future of the child was (88.5%), indicating a practical impact of the counseling program in reducing stress levels.

The results revealed ----- and this indicates that all mothers suffer from psychological stress because of the presence of a child with ASD, and Al-Khatib, Al-Hadidi (1996) indicated that the disability has an impact on the family. This indicates the importance of guiding the mother of autistic child to learn methods of how to deal with stressful situations that the mother is exposed to, as studies have emphasized the training of families on a set of methods for dealing with stress such as relaxation and problem-solving. This study is in agreement with the studies of (Abu Saif, 2018; Al-Deeb, 2016; Rivard et al, 2014; Allen et al., 2014; Leithead, 2013; and Kuusikkio-gauffin et al, 2013). These studies showed the extent of the suffering inflicted on parents due to their son's illness and the manifestation of symptoms of autism on him compared to ordinary children. Hence, the methods through which the counseling sessions were implemented stimulate participation, inclusion and the use of mental and physical relaxation.

Results related to the second question, which states: "Are there statistically significant differences at the level of ( $\alpha = 0.05$ ) between the means of the performance of the experimental group on the stress scale in the post-test, and the mean of their scores on the same scale in the sequential test one month after the conclusion of the program?"

To answer this question, the arithmetic means and the standard deviations were calculated and the t-test for Paired Samples Test was applied to detect the differences between the two measurements, the pre- and the sequential measurements of the overall score sub-domains of the stress scale, as shown in table (9).

*Table (9): The results of (t-test for Paired Samples Test) to reveal the differences in the post-measurement and the sequential measurement of the stress scale as a whole and its sub-domains.*

Dimension	measurement	Arithmetic mean	Standard deviation	Correlation coefficient	Statistical significance	(t) value	Statistical significance
Organic problems	Post measurement	2.683	0.279	0.839	0.000	-0.845	0.413
	sequential measurement	2.717	0.252				
Psychological and nervous stresses	Post measurement	2.627	0.153	0.784	0.001	-1.705	0.110
	sequential measurement	2.673	0.167				
Social and family stresses	Post measurement	2.621	0.197	0.945	0.000	-1.772	0.098
	sequential measurement	2.652	0.205				
	Post measurement	2.500	0.222	0.819	0.000	-0.888	0.389

Concern about the future of the child	sequential measurement	2.553	0.252				
Psychological stress as a whole	Post measurement	2.637	0.143	0.820	0.000	-1.122	0.281
	sequential measurement	2.662	0.141				

\* Statistically significant at the level of ( $\alpha = 0.05$ )

It is obvious from Table (9), no measurably noteworthy contrasts at the level of ( $\alpha = 0.05$ ) between the two number-crunching implies of the post measurement and the sequential estimation of the responses of the members of the experimental study sample participating in the pilot program on the sub-domains and the total score of the stress scale. This indicates that the participants maintain the therapeutic gains.

The results indicated that the participants retained the therapeutic gains, and the stress of the mothers continued to decrease until one month after the program and this study is consistent with the studies of (Abu Saif, 2018; Al-Deeb, 2016; Rivard et al, 2014; Allen et al. ., 2014; Leithead, 2013; Kuusikko-gauffin et al, 2013).

## RECOMMENDATIONS

- Providing counseling programs based on the results of such studies, taking into account the needs of mothers of children with ASD, and to be effective in alleviating the impact of psychological stress on mothers.
- Prepare awareness leaflets to guide families of children with ASD.
- Organizing recreational religious programs, inviting and motivating mothers to participate.
- Providing financial and social support for mothers of children with ASD.
- Conducting more experimental studies to investigate the effectiveness of counseling programs.

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