

Original article

Psychological Distress among Libyan Mothers of Autistic Male Children in Tripoli, Libya

Aisha Benrween*^{ID}, Tarek Alazabi, Hanin Abukash, Nermen Alnajjar, Nawal Ejdeah, Maysam Shileebik, Mahmoud Alharari, Mouad Tellib, Mohammed Alborai

Department of Community Medicine, Faculty of Medicine, University of Tripoli, Libya

ARTICLE INFO

Corresponding Email: a.rween@yahoo.com

Received: 09-05-2022 **Accepted:** 21-05-2022 **Published:** 22-05-2022

Keywords: Psychological Distress, Mother, Autistic Children, Libya.

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ABSTRACT

Background and aims. The impact of caring for a child with autism has been observed among mothers of children with autism spectrum disorders (ASDs) in western countries; however, there is a scarcity of data in the Arab countries. The study aimed to assess the magnitude of psychological distress among the mothers of autistic children and find out the associations between the psychological distresses of mothers with their socio-demographic characteristics, and with their autistic children's socio-demographic characteristics. **Methods.** A case series study was conducted among Libyan mothers of autistic children in the Centers of Special Education for Autism Children and Neurodevelopment Clinic of Al-Khadra Hospital in Tripoli. The General Health Questionnaire 28 (GHQ-28) was used to find out the proportion of probable psychiatric disorder. Data analysis was performed by using the SPSS version 20. **Results.** A total of 104 mothers of autistic children participated in the study, their mean age was 37.9 (SD=7.7) years, and the majority of them were Tripoli residents (67.3%). Half of the mothers were university graduates, though 46.2% of them were housewives, all of the children were males, with mean age of (7.1 ± 3.1) years. The most type of autism was autistic spectrum disorder (56.7%) and also delayed development was present in 58.7% of them. The psychological Distress Status of mothers was 53%. Furthermore, out of all studied variables, the bivariate analysis showed a statistically significant association between the psychological distress of mothers with their residency and with the number of family members (P=0.017, P=0.020; respectively). **Conclusion.** The mothers of children with autism had significant psychological problems. Providing some programs to support families (especially mothers) that can strengthen family coping, and made coping strategies for parents with an autistic child is worth.

Cite this article: Benrween A, Alazabi T, Abukash H, Alnajjar N, Ejdeah N, Shileebik M, Alharari M, Tellib M, Alborai M. Psychological Distress among Libyan Mothers of Autistic Male Children in Tripoli, Libya. *Alq J Med App Sci.* 2022;5(1):267-273. <https://doi.org/10.5281/zenodo.6570764>

INTRODUCTION

According to the WHO factsheet 2017 entitled “autism spectrum disorders”, the disease imposes significant economic and emotional burdens not only on the patients but also on their families and caregivers [1]. Caring for a child with autism has been associated with family stress, and increase in physical and psychological problems, especially in mothers compared with other types of disabilities. Mothers of children with autism have to deal with the various forms of severe disabilities present in the child and bear the psychological, social, financial and social burden of their children's condition. They have been observed to be prone to social isolation, ‘burn out syndrome’ and they are more likely to suffer from mental disorders such as depression and anxiety [2].

According to Holroyd and McArthur in examining mother's report of stress when raising children with autism, Down's syndrome and children being seen in an outpatient psychiatric clinic. They found that mothers of children with autism typically engaged in poor health, depressed mood, excessive time requirements and pessimism regarding their children's future (3). A meta-analysis of 18 studies identified a significant increased risk of depression among mothers of developing children [4]. Furthermore, their depression scores were significantly higher than those of mothers whose children had other developmental disabilities [5]. In fact, mothers of children with autism reported poor overall mental health [6,7], and those whose children showed higher levels of behavioral problems experienced greater stress [8].

Few studies have reported the effect of having a child with autism on mothers' physical and mental health. In Oman, a study reported that fathers are 1.8 times more likely to develop depression, anxiety and stress than fathers of normal children [9]. In Qatar, a study examining caregivers' concerns about their children found caregivers pessimism about their children's future and had high anxiety about the services provided to their children [10]. Several studies conducted in Europe, America and Arab/Muslim people revealed that parents of children with autism suffer from psychological disorders including stress, anxiety, and depression more than parents of children with normally developing children. This is because raising a child with autism usually imposes a significant burden on parents and caregivers, the Arab Gulf countries and Pakistan found that anxiety, stress, and depression are more common among mothers of children with autism and intellectual disability compared to control groups [11]. Another study conducted in 2015 revealed that mothers of ASD children have a higher rate of stress and have an increased rate of use of antidepressant and psychoactive medications than fathers of ASD children [11]. Therefore, the current study was aimed to explore maternal distress in autistic children and to find out the relationship between autistic children and distress indicators according to some of related characteristics of the mothers and their children.

METHODS

Study design and setting

A Case series study was conducted in 2018 among 104 Libyan mothers who had children with autism disorder, recruited from the Centers of Special Education for Autism Children and Neurodevelopment Clinic of AI-Khadra Hospital in Tripoli. A written consent from the head manager of the Neurodevelopment Clinic of AI-Khadra Hospital in Tripoli was obtained, and informed verbal consent for permission has been taken from the head Centers of Special Education for Autism Children and mothers of autistic child before starting the study. Furthermore, to ensure confidentiality the personal information was not included.

Data collection

In the current study, participants were interviewed face-to-face by a trained intern doctors, using a self-prepared data collection form that includes the socio-demographic data, and additionally, the mothers were asked to complete the General Health Questionnaire. The socio-demographic questionnaire covered questions such as, (age, education level, occupation, residency, the presence of complications during pregnancy and birth, family history, birth order, and the number of children in the family. type of autism, development status of the child, drug treatment).

A self-administered Arabic version of the GHQ-28(12-13) was used in this study to assess psycho-logical distress in the mothers of children with autism. The GHQ 28-was developed as a screening tool to detect those likely to have or to be at risk of developing psychiatric disorders. The GHQ-28 is a 28-item measure of emotional distress in medical settings. It is divided into four subscales based on different symptoms: somatic symptoms (items 1–7); anxiety/insomnia (items 8–14); social dysfunction (items 15–21), and severe depression (items 22–28). The GHQ scored from 0 to 3 for each response with a total possible score on the ranging from 0 to 84. A total score of 23/24 is the threshold for the presence of distress participant was recruited as a convenient sample and the Participation in the study was voluntary.

Statistical analysis

The statistical package for social sciences (SPSS) in version 20 was used to conduct the statistical analysis. Frequency and percentages were used to summarize the categorical variables. Mean and standard deviation or median with interquartile ranges were used to describe the quantitative variables as appropriate for their distribution type. Chi-square test, independent t-test, and Mann-Whitney test were used to examine for the bivariate association between the studies variables and psychological distress with a level of significance for a P-value of less than 0.05.

RESULTS

Mothers of 104 autistic children were participated in the study, and the majority of them were Tripoli residents (67.3%). The mean age of mothers was 37.9 (SD=7.7) years, Half of the mothers were university graduates, though 46.2% of them were housewives as showed in (Table 1).

Table.1: Characteristics of the mothers under Study (n = 104)

Characteristic	Statistical Parameter
Age in Years (mean, SD)	37.9 ± 7.7
Education Level (frequency, %)	
Illiteracy	(1, 1.0%)
Primary	(6, 5.8%)
Preparatory	(13, 12.5%)
Secondary	(30, 28.8%)
University	(52, 50.0%)
Postgraduate	(2, 1.9%)
Occupation (frequency, %)	
House Wife	(48, 46.2%)
Teacher	(34, 32.7%)
Governmental Employee	(19, 18.3%)
Private Sector	(3, 2.9%)
Residence (frequency, %)	
Tripoli	(70, 67.3%)
Out of Tripoli	(34, 32.7%)
History of Complication during Pregnancy or Delivery (frequency, %)	
Present	(37, 35.6%)
Absent	(67, 64.4%)

The sociodemographic characteristics of autistic children have summarized in Table (2). All of the enrolled children were males, with a mean age equal to (7.1 ± 3.1) years. Also, the most commonly reported type of autism in this study sample was autistic spectrum disorder (56.7%), a total of 35.6% of autistic children had a positive family history of autism, and delayed development was present in 58.7% of the children.

Table 2. Autistic Children's Characteristics of the mothers under Study (n = 104)

Characteristic	Statistical Parameter
Age in Years (Mean, Sd)	7.1 ± 3.1
Members of the family (Median, IQR)	(5 ± 2)
Order of Child in Family (Median, IQR)	(2 ± 2)
Family History (frequency, %)	
Present	(37, 35.6%)
Absent	(67, 64.4%)
Type of Autism (frequency, %)	
ASD	(59, 56.7%)
Asperger	(26, 25.0%)
Classical	(19, 18.3%)
Family History (frequency, %)	
Present	(37, 35.6%)
Absent	(67, 64.4%)
Development of Child (frequency, %)	
Normal	(43, 41.3%)
Delayed	(61, 58.7%)
Drug History (frequency, %)	
Absent	(84, 80.8%)
Present	(20, 19.2%)

Table (3) Shows the distribution and mean scores reported for mothers on the whole GHQ scale and on each subscale. The frequency of total score was 56(53%) which has better utility to indicate general psychological disorder. The mean anxiety/insomnia was 8.44 ± 5.14 , social dysfunction scale was 7.03 ± 3.20 which was high and TheGHQ28's subscales represent dimensions of symptomatology and not distinct diagnoses.

Table 3: GHQ-28 score distribution among the enrolled Mothers

Outcome Measure	Frequency	(%)
General Health Questionnaire score: 28	56	(53)
Somatic symptoms (items 1–7)	53	(51)
Anxiety/insomnia (items 8–14)	72	(69)
Social dysfunction (items 15–21)	76	(73.1)
Severe depression (items 22–28)	34	(32.7)

Table 4 shows the bivariate association between socio-demographic characteristics of mothers and their autistic children with psychological distress status of mothers. Only the residency, the number of family members showed a significant association with psychological distress ($P = 0.017$, $P = 0.020$), with a higher proportion of psychological distress reporters among those who are from outside Tripoli (70.3%) than inside Tripoli (45.7%). The median number of the family members was four persons for psychologically distressed mothers and median for non-distressed mothers was five persons.

Table. 4: The Characteristics regarding Psychological status for Mother of Autistic Children

Characteristic	Psychological Distress Status		P value
	Present (n = 56)	Absent (n = 48)	
Age in years (mean, SD)	37.6 ± 8.6	38.2 ± 6.5	0.698*
Educational Level (frequency, %)			
Preparatory or under	(11, 55.0%)	(9, 45.0)	0.908**
Secondary or above	(45, 53.6%)	(39, 46.4%)	
Work Status (frequency, %)			
Not Work	(30, 62.5%)	18 (37.5%)	0.101**
Work	(26, 46.4%)	30 (53.6%)	
History of Complication during Pregnancy or Delivery (frequency, %)			
Present	(18, 48.6%)	(19, 51.4)	0.429**
Absent	(38, 56.7%)	(29, 43.3%)	
Residence (frequency, %)			
Tripoli	(32, 45.7%)	(38, 45.3%)	0.017**
Out of Tripoli	(24, 70.3%)	(10, 29.4%)	
Members of the family (Median, IQR)	(4, 1)	(5, 2)	0.020***
Child Age in Years (mean, SD)	6.7 ± 3.0	7.5 ± 3.2	0.173*
Child order (Median, IQR)	(2, 2)	(2, 3)	0.965***
Type of Autism (frequency, %)			
ASD	(28, 47.5%)	(31, 52.5%)	0.253**
Asperger	(15, 57.7%)	(11, 42.3%)	
Classical	(13, 86.4%)	(6, 31.6%)	
Development of Child (frequency, %)			
Normal	(21, 48.8%)	(22, 51.2%)	0.390**
Delayed	(35, 57.4%)	(26, 42.6%)	

* Independent t- Test, ** Chi-Square Test, ***Mann Whitney U Test.

DISCUSSION

This study found that the overall prevalence of psychological problems among mothers was considerable, and even higher than that reported among mothers of children with autism in some other Arab settings like in Saudi and Qatar [11, 14]. However, the current finding was similar the previously report studies [2, 15-23]. These mothers were psychologically more distressed as they were the primary caregivers of their children and, in effect, had less time for themselves as most of their time was spent in fulfilling their children's demands. Our finding revealed that mothers of children with AD experienced higher level of social dysfunction, anxiety / insomnia and somatic symptoms but low level of depression (which explained by our Islamic religion as having child with disability is gift from our Gad).

Our finding was consistent with some previous research's study who found that mothers of children with autism and other disabilities reported significantly less mental health than mothers of children with control group [24-28]. These results may explain as feeling of frustration of having a disabled child, behaviors problem that characterize autism, guilt feeling resulting from anger and rejection of the child, being not known the causes, cure of autism, and the stigmatization associated with the disorder, additional expenses which can create financial burden also indicate low social support to Libyan mothers of autistic child. These findings alert to the need for developing and implanting psychological interventions, personal supports and international experiences suggests that the strains of caring for a child can be alleviated through use of particular coping strategies such as problem-focused coping [29]. In contrast, with other studies [31-35] which show moderate to low level of psychological distress. In our study all of the autistic children were male. Such finding could be explained by the incidence ratio of autism which reflect that the incidence rate of autism is higher in males than female because of genetic differences. Previous study presented supportive evidences to this result that found the cases of autism is high in males than females [30]. The majority of them were fall in the age group of 3-8 years, which was in line with previous study [31], however, it was slightly different from others, who found that most of autistic children were fall in the age group of 5-11 years old [32]. In this study, children were second order in the family in contrast to other study [31]. The children were firstborn in their families. Such finding may be related to several factors. In the largest study of its kind, the researchers have found that the risk of autism increases for firstborn children and children of older parents, they suggested that different factors may related but they didn't Confirmed the main factor [33]. The mean numbers of children in the family was 5 ± 2 similar to the finding results of study [34], that reviewed the family size consisted of four or more children. However, we found a significant association between number of family member and psychological distress may explained they work as source of intrafamily support the family member helping each other in Libya the family members are closely attached to each other and care giving is a common social role here. In contract to earlier study, which shown that most of families have 1-3 children/family this finding may interpreted that they are new families and they worrying about having more children to avoid their socio-economic difficulties [31]. Most of mothers their residency was Tripoli, with a higher proportion of psychological distress reporters among those who are from outside Tripoli than inside. Perhaps, the difficulty of accessing health care services for autistic children of mothers living outside Tripoli compared to mothers living inside may be responsible for the statistical difference regarding the presence of psychological distress among these two groups.

Limitations

Several limitations should be considered, one is the sample size for mothers was small. Second, the use of a non-probability sample, which limits the generalizability of its findings. Third one, fathers were not included in the study because they were harder to approach as most of them do not come to education centers. It is suggested to investigate on larger groups of samples that will also focus on the fathers' and siblings' distress as well as those of mothers.

CONCLUSION

The present study revealed that psychological distress is a considerable problem among mothers of autistic children in Libya. It is important to draw attention of psychologists and doctors engaged in the therapy of children with ASD to the mental condition of the parents, whose good mental health is an important condition for providing optimal help to the child and providing adequate knowledge for parents about how to deal with their child through sessions and brochure. Recommended to provide some programs to support families (especially mothers) that can strengthen family coping and made coping strategies for parents with autistic child in consideration by media to decrease stress and further studies should be conducted as survey.

Disclaimer

The article has not been previously presented or published.

Conflict of Interest

There are no financial, personal, or professional conflicts of interest to declare.

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