

## Association of Autism child characteristics with maternal and paternal stress

Nelofar Kiran Rauf, M. Anis-ul-Haq, Saira Khan

National Institute of Psychology (NIP), Quaid-i-Azam University, Islamabad, Pakistan

**Objective:** To study the relationship between child characteristics (autism symptom severity, adaptive behaviors, and problematic behaviors) maternal and paternal stress.

**Methodology:** Cross sectional research design was used to collect purposive sample of 186 parents (mothers=103, fathers=83) of children with autism. To assess autism symptom severity, childhood autism rating scale (CARS-2) was used. Adaptive behaviors and problematic behaviors were determined via using part 1 of Adaptive behavior scale (ABS-S: 2) and strength and difficulty questionnaire (SDQ). Maternal and Paternal stress was assessed using questionnaire on resource and stress (QRS-F).

**Results:** Increased autism symptom severity,

problematic behaviors and poor adaptive behaviors lead to increased maternal as well as paternal stress levels. Whereas, Problematic behaviors contribute more in maternal stress followed by autism symptom severity and poor adaptive behaviors. Autism symptom severity was the only significant contributor in paternal stress.

**Conclusion:** There is a dire need to understand the interplay of autism characteristics, maternal as well as paternal stress. So that indigenous intervention can be formulated for better understanding and management of the autistic disorder. (Rawal Med J 201;43:263-266).

**Keywords:** Autism, paternal stress, maternal stress, adaptive behaviors.

### INTRODUCTION

Parents of the children with autism experience more stress when compared with the parents of children afflicted with other disabilities.<sup>1,2</sup> Parents of the children with overt disabilities such as severe cerebral palsy or Down syndrome are confronted with obvious signs of disability condition. Although, their child has a serious disability, they are left with no doubt almost from the time of birth. This is not the case for the parents of children with autism, where difficulty appears slowly and often subject to false explanations, such as deafness, late development, parental mismanagement or temperament etc. Many parents would rather cling to these false explanations than facing the possibility that their child has a life-long disability. The disability that will influence nearly every aspect of his or her development, create enormous problems with regard to education and personal /social growth, negative impact on siblings negatively and make the transition into adulthood a time of great stress for the whole family.

The reasons for elevated stress in parents of children with autism are unknown etiology, complicated diagnosis, unique characteristics of the disorder,<sup>3</sup> severity of autism symptoms,<sup>4</sup> emotional and behavioral manifestation of symptoms.<sup>5</sup> The present study was conducted to determine impact of child characteristics including autism symptom severity, adaptive behaviors, and problematic behaviors on maternal as well as paternal stress.

### METHODOLOGY

Parents of children falling in age range 3 years to 14 years, fulfilling the diagnosis criteria of Autistic disorder on CARS-2 were contacted via school authorities. The sample consists of 186 parents, 103 mothers and 83 fathers of children. Firstly, Autism symptom severity, adaptive behaviors and problematic behaviors of 110 children with autism were assessed, later, 103 mothers and 83 fathers completed questionnaire related to Stress. Demographic information was collected using a demographic sheet. To measure Autism symptom

severity, CARS-2<sup>6</sup> was used. Adaptive behaviors were measured using ABS-S: 2 (Part-1)<sup>7</sup>. For the present study, ABS-S: 2 (Part-1) was translated into Urdu language using forward translation method. Information about adaptive behaviors of children was completed with the help of teachers and parents. It consists of 67 different items and low scores on the first part of the scale show poor adaptive functioning. To measure problematic behaviors already available Urdu version of SDQ was used.<sup>8</sup> It consists of 20 items rated on, not true, somewhat true, or certainly true by parents. Maternal and paternal stress was measured using 51 items QRS-F,<sup>9</sup> rated on five point Likert scale. For the present study the questionnaire was translated in Urdu Language using forward translation method.

**Reliability and Validity of the Study tools:** The overall alpha reliability of CARS-2 scale was .91, for Urdu version of ABS: 2S (Part 1) it was .71 and for SDQ it was .80. The alpha reliability co-efficient of both maternal and paternal QRS-F was .97. All tools of the study depicting good to excellent alpha reliability, which shows that they were internally consistent.<sup>10</sup> Content validity of translated instruments (ABS: 2S, QRS-F) was established as rated by experts for the clarity and cultural equivalency of the entire scale (S-CVI) and individually for the instructions, response format, and items (I-CVI). The clarity and cultural equivalency of the entire scale (S-CVI) and individually for the instructions, response format, and items (I-CVI) was well above the cut off criteria of 0.8. Hence providing evidence for good content validity of the instruments.

## RESULTS

The demographic characteristics in Table 1 depicted that 50% of the fathers and 70% mothers fall in age range from 32 to 42 years. A good number (67%) of the mothers were house wives. Only four mothers (3.6%) reported that they were not living with their husbands, either they were divorced or separated. 56.4% of the parents reported that were not relatives or cousins, where as 28.2% parents reported that they were first cousins (Table 1).

**Table 1. Demographic characteristics of parents of children (N=186).**

Demographic Variables	Frequency	%
Paternal age		
32 to 42 years	50	60.2%
43 to 52 years	30	36.1%
53 to 62 years	03	3.61%
Maternal age		
25 to 35 years	70	68%
36 to 45 years	31	30%
46 to 55 years	02	1.9%
Paternal work status		
Employed	86	100%
Not employed	0	0%
Maternal work status		
Employed	36	35%
Not employed	67	65%
Marital status of parents		
Married couples	92	96.8%
Divorced \Separated	4	4.2%
Relationship between parents		
First cousins (blood relation)	31	28.2%
Second cousins	17	15.5%
Out of family	62	56.4%

**Table 2. Correlation matrix among the study variables.**

Variables	1	2	3	4	5
Autism Symptom Severity	-				
Adaptive Behaviors	-.35**	-			
Problematic behaviors	.43**	-.45**	-		
Paternal stress	.54**	-.29**	.33**	-	
Maternal stress	.48**	-.44**	.43**	.45**	-

\*\* $p < .01$

There was significant positive relationship between autism symptom severity, problematic behaviors and maternal, paternal stress (Table 2). Whereas, the relationship between adaptive behaviors and maternal, paternal stress is significant and inversely related to each other.

**Table 3. Hierarchical multiple regression for child characteristic (problematic behaviors, autism symptom severity, adaptive behavior) predicting maternal and paternal stress (N=186).**

Predictors	Parental Stress			
	Maternal stress (n=103)		Paternal stress (n=83)	
	$\Delta R^2$	<i>B</i>	$\Delta R^2$	$\beta$
Model 1	.258 ***	-	.115*	-
Problematic Behaviors	-	.50***	-	.33**
Model 2	.093***		.198**	-
Problematic Behaviors	-	.36***	-	.15
Autism symptom Severity	-	.33***	-	.48***
Model 3	.027*		.006	-
Problematic Behaviors	-	.31***	-	.13
Autism Symptom Severity	-	.27**	-	.45***
Adaptive Behavior	-	-.19*	-	-.08
Total $R^2$	.378***			.319***
<i>N</i>		103		83

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

The full model depicted that problem behaviors, symptom severity and adaptive behaviors significantly predicts maternal stress. Whereas, only autism symptom severity significantly predict paternal stress (Table 3).

## DISCUSSION

Increase in autism symptom severity, problematic behaviors and poor adaptive behaviors leads to elevated stress in parents of children with autism.<sup>11-14</sup>

Autism usually comes with hidden characteristics and symptoms of each child are unique.<sup>4</sup> So parents have to be very vigilant in understanding the needs and deficiencies of their children. Due to this, management of autism in children is a challenge on daily basis. Parents cannot assure with any one form of treatment. In reference to Pakistan, the management is even more challenging. Parents are usually not aware of the basic characteristics and associated problems related to autism. For parents the unpredictable changes in child characteristics, which are not effectively managed by parents, might lead to more stress.

Child characteristics that were autism symptom severity, adaptive behaviors and problem behaviors were the significant predictors of maternal stress. Whereas, the major contributor in the maternal stress was problematic behaviors followed by autism symptom severity and adaptive behaviors.

This finding of the present study is in conformity with the past research that problem behaviors of children with autism are strongest and consistent predictors for the maternal stress.<sup>15,16</sup> Moreover, it was also found that problem behavior was the significant predictor for maternal stress but not for the paternal stress, as reported earlier.<sup>17</sup> A plausible reason for this finding might be that mothers are usually considered responsible for not only taking care of their children but also their upbringing. It is stressful for mothers when their child has autism and cannot communicate his/her needs. So, there is need to create awareness in parents about importance of behaviors therapy and to counsel both mothers and fathers to accept their child in every good and bad situation and to take ups and downs as part of the spectrum.

Autism symptom severity was the only significant predictor for paternal stress. Few studies have focused on the stress experienced by fathers of children with autism and found that fathers do feel difficulty in communicating with their autistic children and certain behaviors of child do cause stress in fathers.<sup>4,19</sup> In past literature fathers of children with autism are often taken as invisible parents and researches were mostly designed to specifically address the maternal care giving needs.<sup>17</sup> The current study manages to identify the stressors experienced by fathers which help clinicians to the understand the underlying mechanism of stress they are going through.

This study will help in understanding the interplay of child characteristics including autism symptom severity, adaptive behaviors, and problematic behaviors with maternal as well as paternal stress. It will be of great help for counselor and clinical practitioner to make suitable assessment and interventional plan for mothers as well as for fathers.

## CONCLUSION

Stress in parents specially fathers of children with autism is not effecting their own mental health, in fact its jeopardizing the other overall management, prognosis of their children and enmeshing the whole family system. Therefore, it is very essential

to understand and to create awareness about the interplay of characteristics related to autism and its impact on the family.

#### Author Contributions:

Conception and design: Nelofar Kiran Rauf  
Collection and assembly of data: Nelofar Kiran Rauf, Saira Khan  
Analysis and interpretation of the data: Nelofar Kiran Rauf, Saira Khan  
Drafting of the article: Nelofar Kiran Rauf, M. Anis-ul-Haq, Saira Khan  
Critical revision of the article for important intellectual content: Nelofar Kiran Rauf, M. Anis-ul-Haq  
Statistical expertise: Nelofar Kiran Rauf, Saira Khan  
Final approval and guarantor of the article: Nelofar Kiran Rauf, M. Anis-ul-Haq

**Corresponding author email:** Nelofar Kiran Rauf:  
nelofar@nip.edu.pk

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