

## Impact on Parents' Psychological Well-Being of Preschool Children Diagnosed with Autism Spectrum Disorder in the Indian Context

<sup>1</sup>Manisha Choudhury, <sup>2</sup>Dr. Payal Kanwar Chandel, <sup>3</sup>Dr. Thiyam Kiran Singh

<sup>1</sup>PhD Scholar (AIBAS)

Amity University Rajasthan

Email id: [manishachoudhury4@gmail.com](mailto:manishachoudhury4@gmail.com)

<sup>2</sup>Former Associate Professor (AIBAS)

Amity University Rajasthan

Currently Head of the Department

Department of Psychology

Central University Haryana

Email id: [paayalchandel@gmail.com](mailto:paayalchandel@gmail.com)

<sup>3</sup>Associate Professor

Central University Mizoram

Received: 19- June -2023

Revised: 17- July -2023

Accepted: 08- August -2023

### Abstract:

The present study states that parents of autistic children are more stressed than parents of typically developing children. Although there is a dearth of studies regarding the predicting factors leading to stress within this population. The core aim of this study was to examine the factors like severity of autistic symptoms, cognitive abilities, perceived limit settings skills, behavioural, and emotional issues on parental stress level in the given sample of maternal and paternal groups of preschool children with ASD when compared to the normal group of children. Results show that parents who are nurturing children diagnosed with ASD tend to experience elevated levels of psychological stress than parents taking care of normal children. The present study also revealed a notable finding that there are few behaviour and emotional aspect-related variables that has as a significant effect on triggering parental psychological stress. Overall, the conclusion of the study is that maladaptive behaviours of ASD children affect the psychological well-being of parents. Therefore, planned intervention programs focusing on parents are crucial to providing a better intervention plan for children which includes mental well-being of parents as well so that the parents' psychological status doesn't go unnoticed and the child also has a better intervention outcome.

**Keywords:** Parents, Stress, Autism Spectrum Disorder, psychological well being

### 1. Introduction:

Autism is a neurodevelopmental disorder with profound impacts on many areas of functional development and is marked by poor social communication abilities and restrictive repetitive behaviour (APA,2013). Managing children diagnosed with autism has been a great challenging issue for parents who deal with preschool-age children. Various similar literature studies have mentioned the increased level of psychological distress among parents of children of preschool stage diagnosed with ASD in comparison to children diagnosed with other delayed motor milestones or communication disorders like Down's syndrome, intellectual disability or normal developing children (Giovagnoli et al.,2015; Melli et al.,2016; Togneri,2014) On a similar note, there are studies which have mentioned that parental group of children who are raising children diagnosed with ASD deal with a higher level of psychological stress compared to parents of the adolescent group having ASD diagnosis (Schieve et al.,2007). There are also studies being conducted to examine the effect of psychological stress parents are facing on the intervention outcome planned for the autistic child. Research has shown that have also higher levels of stress in parents parenting ASD children have an indirect impact resulting in negative outcome of intervention programs planned for children thus impairing the child's other domains like social and cognitive skills, adaptive behaviour, and social functioning (Schieve et al., 2007; Zablotsky,2013). Similarly, several research studies have examined the core variables related to parental stress who are nurturing children of school-aged and teens with autism and

have identified certain critical factors which include the severity of autistic symptoms, different modes of coping used by parents, family-related, impairment in social interaction, and maladaptive behaviour variables (Christi et al.,2022; Clifford,2011; Derguy et al., 2016; Di Renzo et al.,2021; Giovagnoli et al.,2015; Zablotsky et al.,2013, Drogomyretska et al.,2020) affecting parental stress.

Hastings and Johnson (2001) conducted a study wherein they collected data from 140 parents of children with ASD managing a home-based intervention program shared by a licensed professional. This finding indicated that the diagnosis of autistic symptoms in a child at an early childhood age could be related to parental stress (Hastings & Johnson,2001; Clifford,2011). On the other hand, researchers have concentrated on the management of behavioural and emotional issues in addition to a child's signs of maladaptive behaviour similar to autism, gender, race, and age as a significant source of heightened stress among parents of young children (Mello et al.,2022; Drogomyretska et al.,2020; Hastings et al.,2005; Sikora et al.,2008).

On the other hand, a similar study was conducted which revealed that an increased level of stress among parents seemed to be dependent on various variables like a child's age, maladaptive behaviour, and cognitive skills (Rivard et al.,2014). Hastings et al. (2005) conducted a study wherein they mentioned that parental stress who are raising children of preschool grade diagnosed with ASD have a strong correlation with variables like a child's autistic symptoms, maladaptive behaviour, and social or emotional behaviour (Achenbach & Rescorla;2000). As a whole, all the above studies suggest that the common stress markers among parents dealing with children of preschool age diagnosed with ASD seem to be very fluctuating in nature; the studies also don't reveal much about other predictors like conduct problems, hyperactivity, satisfaction with parenting, etc. responsible for elevated stress among parents of children (Rivard et al.,2014; Hastings et al.,2005).

Furthermore, maladaptive behaviours in ASD children indicate sleep-related problems, hyperactivity, self-hurting behaviour, aggressiveness, and sudden temper tantrums. There is a dearth of studies regarding the depth of impact these predictors have caused parental stress individually. Most of the studies have discussed the findings as a whole by administering a questionnaire and then calculating those scores based on which inferences were drawn rather than considering each variable separately (Mello et al., 2022).

The most extensively used tool to assess emotional and behavioural status is Child Behavioural Checklist [25] for preschool and adolescents diagnosed with ASD. Many studies have revealed that the scores obtained in the subscales for CBCL for age 1.5-5 years were significantly different or higher for ASD children in comparison to other psychiatric disorders or typically developing children across the domains like withdrawal problems, attention problems (Cheatham & Fernando,2022; Di Renzo et al.,2021; Zaidman et al.,2011; Chakraborty et al.,2015; Schopler et al.,1980).

However, in India, only a handful of studies have looked at the impact of emotional behaviour in children with ASD on parental stress. The study's main objective was to examine the effects of maladaptive behaviours on parental stress in a sample of preschoolers with ASD to those in the control group. The study also examined the differences in parental stress between the two groups in terms of the degree of autism symptoms, cognitive skills, adaptive behaviours, emotional attributes and issues related to behavioural misconduct.

## 2. Method:

### 2.1 Participants

In the current study, a total of 130 parents of preschool-aged children with autism (116 boys and 14 girls, respectively, with 89.2% and 10.76% and mean ages SD: 40.7 9.7 months) and 70 typically developing children (42 boys and 28 girls, respectively, with 60% and 40% and mean ages SD: 42.5 14.5 months) participated. The sample was gathered from private clinical facilities in India's northern and eastern regions. Table 1 provides an overview of the demographics of parents and kids (ASD and TD).

**Table 1:**  
Table showing Demographic characteristics of ASD and TD parents.

ASD	TD
-----	----

	Mothers (N = 80)	Fathers (N = 50)	Mothers (N = 56)	Fathers (N = 14)
Age, mean (SD)	36.7 (4.3)	43 (7.2)	34.6 (4.6)	41 (6.5)
Education, N (%)				
Secondary qualification	19 (7.8)	20 (12.6)	6 (4.67)	2(0.9)
Higher Secondary qualification	38 (21.4)	19 (13.3)	17 (12.9)	4(2.7)
Graduation	23 (12.7)	11 (9.2)	33 (21.8)	8(6.7)
Occupation, N (%)				
Unemployed	40 (32.2)	5 (3.5)	10 (8.7)	0 (0)
Private organizations	30 (25.6)	26 (16.3)	32 (26.7)	4 (2.97)
Government Organizations	10 (6.2)	19 (17.2)	14 (11.7)	10 (7.3)

Children with ASD were diagnosed according to the criteria mentioned in DSM-5 and CARS<sup>TM</sup>- 2nd Edition by experienced speech-language pathologists (Schopler et al.,1980). Parents were interviewed regarding their child's autistic symptoms using the ISAA test manual (Mukherjee et al.,2015). The National Trust, the Ministry of Health and Family Welfare, and the Ministry of Social Justice and Empowerment of the Government of India collaborated to create ISAA (Mukherjee et al., 2015). It is divided into six different areas and consists of 40 items that are evaluated on a scale of 1 to 5 for each item. The domains are social relationships and reciprocity, emotional responsiveness, speech, language, and communication, behavioural patterns, sensory elements, and cognitive component.

When compared to TD children and/or children with other conditions, ASD preschool children are likely to have a comparable pattern of behavioural and emotional profile (Balboni & Ceccarani, 2003). For comparison purposes with the ASD group in terms of age and gender in the current investigation, the TD sample was chosen as a control group. The control population had to meet the basic ISAA screening requirements as well as the withdrawn subscale to rule out any potential autistic traits (Mukherjee et al., 2015). Each parent participant received a formal consent form describing the study's rationale and objective.

## 2.2. Assessment of severity of autistic symptoms and cognitive skills of ASD children:

In order to evaluate the severity of autistic symptoms and the cognitive ability of their kid, all of the parents were asked questions using the ISAA items. For those with an autism diagnosis, the ISAA is a tool for reliable evaluation. To construct an accurate diagnosis, this instrument employs detailed observation, clinical assessment of numerous behaviours, and investigation based on interaction with the specific subject, as well as information acquired from parents or caregivers. ISAA comprises of 40 test items graded on a 5-point scale ranging from 1 (never) to 5 (always). The 40 items are broken down into six categories: Domain I, Social Relationship and Reciprocity, Domain II, Emotional Responsiveness, Domain III, Speech, Language, and Communication, Domain IV, Behaviour Patterns, Domain V, Sensory Aspects, and Domain VI, Cognitive Component. The ISAA test-retest reliability was presented to 130 people and retested three months later.

According to the literature, the correlations varied from 0.60 to 0.85 across several categories, with a total score of 0.83 ( $p<0.001$ ) (Togneri, 2014; Balboni & Ceccarani, 2003; Chakraborty et al., 2015; Schopler et al., 1980; Balboni & Ceccarani, 2003). In the present study, autistic symptoms and cognitive functioning were assessed using the raw ISAA scores. The mean and standard deviation for ISAA in the ASD sample are shown in Table 2.

**Table 2:**  
Table comparing the average rates of behavioural issues and parental stress in samples with and without ASD.

	ASD		M(SD)	Marginal N(%)	CG		<i>p</i>
	Mild N(%)	Clinical N(%)			Clinical N(%)	M(SD)	
ISAA (severity of autistic children)			5.6 (1.6)				
VABS-SF							
Comm.			1.9 (0.8)				
DLS			2.3 (0.6)				
Social skills			1.9 (0.5)				
Motor development			2.6 (0.8)				
ISAA							
Social Relationship and Reciprocity	17 (12.7)	81 (56.8)	68.8 (10.5)	0 (0)	0 (0)	52.6 (4.5)	.000**
Emotional Responsiveness	23 (16.2)	4 (2.3)	55.9 (6.9)	5(4.3)	1 (0.9)	51.7 (3.9)	.000**
Speech - Language and Communication	26 (19.4)	25 (18.7)	61.3 (7.7)	4 (3.6)	2 (1.2)	54.1 (4.9)	.000**
Behaviour Patterns							.000**
	21 (17.9)	10 (3.7)	57.9 (6.9)	5 (4.7)	1 (1.5)	52.7 (4.7)	
Sensory aspects	9 (6.7)	7 (3.7)	56 (5.7)	0 (0)	0 (0)	52.6(4.9)	.000**
Cognitive component	31(21.7)	38 (29)	58.9 (8.7)	6.5 (3.2)	4.7 (3.8)	45.4 (10.6)	.000*
PSI							
Total score		43 (12.8)	65.6 (29.4)		4 (2.4)	32.1 (26.5)	.000*
Parent-distress		32 (20.8)	53.9 (31.8)		8(5.3)	37.5 (28.6)	.000*
Parent-Child dysfunctional interaction		51 (32.4)	67.5 (27)		7 (5.3)	43 (25.3)	.000*

**Note:** Comm.=Communication, DLS=Daily living Skills, ASD=autism spectrum disorder; ISAA- Indian Scale for Assessment of Autism, CG=Control Group; M, mean; SD, standard deviation; VABS-SF, Vineland Adaptive Behavior Scale- Survey Form, PSI-SF, parental stress index-short form. \*  $p \leq .006$ . \*\*  $p \leq .001$ . marginal range (ASD): T score from 70 to 107 and clinical range: T score  $\geq 106$ . b marginal range: T score from  $>71$  and clinical range: T score  $\geq 71$ . c Clinical range: percentile  $>69$ bth percentile.

### 2.3. Assessment of parental stress:

The PSI-SF (Short Version of Parent Stress Index) was presented to parents of autistic children to determine how stressed they felt as parents (Zablotsky et al., 2013; Zaidman et al., 2011). The questionnaire was filled out by either the mother or the father, or by both. PSI-SF is a 36-item questionnaire that examines multiple aspects of

experiencing stress in parents of autistic children. Parental Distress (PD), Parental Competence and Depression, and Parent-Child Dysfunctional Interaction (P-CDI), which refers to interactions where the parent-child relationship is not up to par, rather unsatisfactory, and an ASD child's disruptive behaviours make the parent challenging to handle/difficult child (DC).

The PSI-TS total score also provides information on the parent's general level of stress as it relates to caring for a preschooler with autistic traits. The 36-item assessment form was distributed to the parents, and their answers were documented using a rating system of five points. Parents whose score exceeded 85% in all aspects were deemed stressful (Muratori et al., 2013; Rivard et al., 2014; Schieve & al., 2007). In the current study, the stress levels of parents were assessed using each domain percentile of the PSI-SF. The PSI-SF is valid and reliable, at least according to several studies that have utilized it (Rivard et al., 2014; Schieve et al., 2007).

#### 2.4. Assessment of adaptive skills:

Children with ASD's adaptable abilities were assessed using VABS-SF (Short version of Vineland Adaptive Behaviour Scale), and parents who participated were interviewed based on items included in the VABS-SF that addressed kids' regular adaptive behaviour. The VABS-SF (Zablotsky et al., 2013; Zaidman et al., 2011) is a structured parent interview format that analyses adaptive behaviours in children from birth to 18 years of age. It is based on daily adaptive functioning. It normally consists of 297 items that are divided into four key categories: communication, growth in motor abilities, social skills, and daily living skills. The key areas evaluated in the area of communication segment include those pertaining to verbal expression, language reception, and appropriate for their ages written capability.

Regarding the socialization domain, areas pertaining to the growth of a child's interpersonal connections and the growth of social skills during recreational and playful time are evaluated. The development of gross and fine motor skills up to 71 months of age is referred to as the motor domain in the tool which is administered. Age criteria were adopted in the current study that were determined to be identical to the norms listed in the questionnaire for each domain. According to the evaluation of the literature, VABS-SF has shown objective psychometric features (Zaidman et al., 2011). Tables 2 and 3 discuss descriptive analysis with reference to adaptive functioning.

### 3. Data analysis:

The data acquired from the specified sample was analyzed using the Statistical Package for Social Sciences (SPSS 20.0). Each participant provided ethically informed consent and was given the assurance that their answers would be kept completely secret. After requesting authorization from the relevant authority, the data were solely gathered from private clinics. Descriptive statistics were implemented to figure out the information about the population, including job status and educational history. For the total number of participants in the ASD and Control group, individualized frequency estimates of behaviour among children and parental stress were determined.

Chi-square was used to compute dichotomous variables, whereas one-way ANOVA was utilized to assess continuous variables. Moreover, the Bonferroni correction for multiple analyses was employed, and a different p-value was considered statistically significant depending on the number of comparisons. Pearson correlation was implemented to explore the causal connection between parental stress and children's vital traits, such as behavioural problems, the severity of autism symptoms, and adaptability.

A stepwise linear regression model was applied to investigate if the traits of a child are capable of predicting parenting stress for parents of preschoolers with ASD. The statistical criterion for each step in the regression was  $p \leq 0.050$ , and the removal criterion was  $p \geq 0.1$ . At every stage of the regression analysis,  $R^2$  was significantly different from the baseline. In addition, the alpha level for statistical significance was determined at 0.05.

**Table 3:**  
Pearson correlation between stress and child's characteristics in ASD and TD

	ASD	TD
	r (p)	r (p)

	Tot. Sco. (PSI)	PSI Par. Dist. (PD)	PSI- Pare- Child. Inter. (PCRD)	Tot. Sco. (PSI)	Par. Dist. (PSI-DS)	PSI- Pare- Child. Dys.
<b>ISAA</b> (severity of autistic children)						
<b>VABS-SF</b>						
Comm	— .03 (.795)	— .03 (.781)	— .08 (.313)			
DLS	— .09 (.362)	— .04 (.703)	— .17 (.035) *			
SS	— .08 (.315)	— .05 (.607)	— .17 (.042) *			
MD	— .08 (.443)	— .02 (.789)	— .14 (.159)			
<b>ISAA</b>						
SRR	.28 (.002) **	.20 (.027) *	.35 (.000) **	.29 (.012) *	.11 (.369)	.28 (.012) *
ER	.32 (.000) **	.26 (.006) **	.25 (.007) **	.28 (.006) **	.09 (.379)	.26 (.025) *
Speech - Language and Comm,	0.29 (.000) **	.21 (.004)	.020 (.006)**	.30 (.007) **	.11 (.376)	.26 (.025) *
BP	.24 (.005) **	.26 (.003) **	.25 (.005) **	0.39 (.000) **	38 (.002) **	0.3 (.003) **
SA	.23 (.009) *	.10 (.274)	.33 (.000) **	.25 (.020) *	.10 (.391)	.20 (.071)
Cog. Comp.	.17 (.049)	.09 (.211)	.23 (.012)*	.32 (.001)**	0.27 (.012) *	0.26 (.021) *

**Note:** Comm=Communication; DLS= Daily living skills, SS= Social Skills, MD=Motor Development, SRR=Social relationship and reciprocity; ER=Emotional Responsiveness, BP=Behavioural Patterns; SA=Sensory aspects; ASD= autism spectrum disorder; ISAA- Indian Scale for Assessment of Autism, TD, typically developing; M, mean; SD, standard deviation; VABS-SF, Vineland Adaptive Behavior Scale- Survey Form, PSI-SF, parental stress index-short form. \*  $p \leq .007$ . \*\*  $p \leq .003$ .

#### 4. Results:

##### 4.1. Relationship between psychological stress among parents and children's behaviour in ASD and Control group datasets.

To find out the connection between parental stress and child factors such as cognitive abilities (ISAA), Adaptive behaviour (VABS), symptom severity (ISAA), and a broad spectrum of emotional and behavioural issues. Pearson correlation analysis was performed independently on the ASD and TD groups. The outcome between the factors is shown in Table 3 below.

##### 4.2 Parenting stress indicators in the ASD & CG data

The relative impact of a child's symptom severity, behavioural, mental, cognitive, and adaptive abilities, as well as parental stress was investigated using multiple regression. Every single subscale associated with the PSI-SF was uploaded as a dependent variable following the stepwise technique and VABS-SF, and ISAA were administered as independent variables. Overall, findings show that parental stress was not associated with adaptive

functioning or cognitive abilities but was predicted by multiple ISAA subscale scores and consequently by emotional, behavioural, and delayed speech-language milestones. In more detail, the total score of PSI was predicted by emotional responsiveness in the first step and Emotional Responsiveness, Social Relationship, and Reciprocity of ISAA subscales in the second step.

After stage 2, the model incorporated onto consideration 17.8% of the difference in the PSI-SF total score. Additionally, the first step of the research showed that behaviour patterns were significant indicators of PSI-PCRD, and the subsequent step revealed that speech-language and social interaction ISAA subscales employed in the regression model jointly represented 23.4% of PCRD deviation. The results of the regression illustrated that social interactions and reciprocity were accurately predicted by the sum of the PSI score in the first stage, patterns of behaviour in the second step, and speech-language and communication in the third step. In total, 30% of the variance in stress among parents parenting ASD children

The behaviour patterns subscale, on the other hand, entirely predicted the PSI-PD subscale, accounting for 12% of the variance in stress among parents. In the case of the Control group, an analysis of multiple regression was used in conjunction with a step-wise analysis, with each PSI-SF subscale entered as the dependent variable and six ISAA domains as independent predictors. The research revealed that behavioural patterns from the first phase, sensory elements from the second step, and cognitive characteristics from the third step were all significantly linked to the PSI total score and accounted for 29% of the variance in parental stress.

The behaviour pattern subscale indicated the PD domain with 18% and 16% variance in parental stress, respectively. In terms of parental stress, the PCRD regression model estimated that six ISAA subscales accounted for roughly fifty-five per cent of the variance. The first phase involved the addition of behavioural patterns, the second and third phases contained the addition of social interactions and emotional reactions, and the fourth and fifth phases contained the inclusion of sensory aspects and mental capacities.

**Table 4:**

Table illustrating multiple regression to explore the factors that impact parental stress and preschool children with ASD

	Step 1			Step 2		
	<i>B</i>	SE <i>B</i>	<i>b</i>	<i>B</i>	SE <i>B</i>	<i>b</i>
PSI-Total Score						
Constant	-16.12	21.38		-49.21	23.01	
Emotional Responsiveness	1.43	.40	.32**	1.15	.42	.24*
Social Relationship and Reciprocity				.87	.35	.26*
PSI-PD b						
Constant	-17.57	21.36				
Behaviour patterns	1.31	.37	.28*			
PSI-PCRD c						
Constant	-24.21	19.25		-63.04	25.9	
Behaviour patterns	1.54	.32	.42**	1.45	.32	.40**

Speech-language and communication	0.75	.37	.16*
--------------------------------------	------	-----	------

**Note:** PSI-Parental Stress Index, PD-Parental distress, PCRD- Parent-child relation dysfunction, B- unstandardized regression coefficient; SE B, standard error of the unstandardized regression coefficient; b, standardized regression coefficient.

a Model 1:  $F(1,122) = 12.8, p < .000$ ; model 2:  $F(1,123) = 9.8, p < .001$ .

$R^2 = .12$  for step 1;  $\Delta R^2 = .049$  for step 2.

b Model 1:  $F(1,122) = 10.9, p = .002$ .

$R^2 = .09$  for step

c Model 1:  $F(1,122) = 23.4, p < .000$ ; model 2:  $F(1,121) = 15.2, p < .001$ .

$R^2 = .17$  for step 1;  $\Delta R^2 = .035$  for ste

**Table 5:**

Table illustrating multiple regression analysis to evaluate determinants of stress among parents and preschool normal children..

	Step 1			Step 2			Step 3			Step 4		
	B	SE B	b	B	SE B	b	B	SE B	b	B	SE B	b
PSI Total Score <sup>a</sup>												
Constant	-			-			-			-		
	120.68	34.23		176.89	44.56		206.64	43.34				
Behaviour patterns	2.94	.70	.43**	2.39	.69	.42**	2.19	.72	.32**			
cognitive component				1.28	.56	.23*	1.12	.54	.19*			
PSI-PD <sup>b</sup>												
Constant	-	38.72										
	102.54											
Behaviour patterns	1.62.	.75	.36**									
PSI-PCRD <sup>c</sup>												
Constant	140.81	40.26		-	42.87		-	42.34		-	42.	
				215.89			223.12			274.13	61	
Behaviour patterns	4.49	.69	.53**	2.91	.79	.43**	2.76	.89	.37**	2.32	.79	.25*
Social relationship				1.59	.58	.28*	1.41	.59	.26*	1.29	.58	.22*
Emotional responsive ness							1.67	.53	.22*	1.52	.63	.24*
Sensory aspect										1.43	.59	.25*
Cognitive abilities										1.40	.58	.23*

**Note:** PSI-Parental Stress Index, PD-Parental distress, PCRD- Parent-child relation dysfunction, B-



unstandardized regression coefficient; SE B, standard error of the unstandardized regression coefficient; b, standardized regression coefficient.

<sup>a</sup> Model 1:  $F(1,86) = 19, p < .000$ ; model 2:  $F(1,84) = 12.8, p < .001$ ; model 3:  $F(1,85) = 10.6, p < .001$ .

$R^2 = .18$  for step 1;  $\Delta R^2 = .049$  for step 2,  $\Delta R^2 = .039$  for step 3.

<sup>b</sup> Model 1:  $F(1,86) = 14.5, p = .001$ .  $R^2 = .15$  for step 1. <sup>c</sup> Model 1:  $F(1,86) = 10.5, p = .005$ .  $R^2 = .12$  for step 1.

## 5. Discussion:

Numerous research has been conducted since preschool children with characteristics of autism were first identified (Cheatham & Fernando, 2022; Di Renzo et al., 2021; Zaidman et al., 2011; Chakraborty et al., 2015; Schopler et al., 1980) and also the impact of various behavioural difficulties, such as the severity of autism symptoms on parental mental well-being. According to the results of the current study, cognitive abilities, adaptive behaviours, and psychological and behavioural problems have an effect on stress levels among parents.

The authors of the present research sought to determine whether adaptive capabilities and other emotional and behavioural problems, in lieu of the autism fundamental symptoms, showed a more significant effect on stress among parents than other features of children with the diagnosis. Additionally, the current study shows that there was no direct relationship between parental stress and the severity of autistic symptoms in the ASD group, but rather a correlation between parental stress and a child's behavioural and emotional problems.

Similar studies have demonstrated that parenthood anxiety and stress are influenced by a child's behaviour and have no relation to adaptive abilities or the severity of a child's autism diagnosis (Sikora et al., 2008; Zaidman et al., 2011; Chakraborty et al., 2015). It is clear from the literature analysis and the study's findings that parental stress contributes to the maladaptive behavior of kids with autism.

However, when looking at the main indicators of stress between parents, the findings revealed that only behavioural as well as emotional issues had been included in the model of regression in order to account for the relevant outcome. In other words, all areas of parental stress were associated with a lack of attention, while withdrawing behaviour was linked to parent-child relationship dysfunction and behavioural challenges were strongly linked with stress among parents. According to the findings, correlation and regression statistical measures show a substantial relationship between parental stress and a child's behavioral and emotional problems in normal developing children.

In the present research, disruptive behaviour was found to be a significant indicator of parental stress, along with additional challenges like behavioural attention deficit challenges, which make it more diligent for parents to manage their ASD child. Numerous studies wherein maternal stress was predicted by similar subscales in a given sample of young kids (aged 2-9 years) diagnosed with autism or intellectual disability (Cheatham & Fernando, 2022; Sim et al., 2018) additionally concentrated on the similar relationship between emotional and behavioural on parental stress.

These results have strongly suggested that parents' psychological well-being and quality of life are significantly impacted by emotional and behavioural problems, that require guidance from professionals. The relationship between adaptive behaviour and its influence on stress among parents has always been a subject of discussion and conflicting findings from various research studies (Tehee et al., 2009; Balboni & Ceccarani, 2003; Christi et al., 2022; Cheatham & Fernando, 2022). As previously stated, there are several contradictory studies in preschool children diagnosed with autism that demonstrate no relationship between parental stress and a child's adaptive behavior (Christi et al., 2022; Cheatham & Fernando, 2022; Muratori et al., 2013).

According to Hastings et al. (2005), there may be an inverse relationship between stress in parents and adaptive behaviour as a consequence of unstable relationships within the family. One possible theoretical explanation for this finding is that the researchers looked at different parental stress subscales and regions of adaptive behaviour individually. Similarly, the results of the present study show that the effects of parental stress on the parent-child relationship is influenced by social as well as conceptual abilities, which are necessary to build productive relationships with the parents of children with ASD and related caregivers.

## 6. Conclusion

The present study findings add to previous research that shows caregivers of children with ASD often suffer more stress than parents of typically developing peers. According to the findings, children with ASD have greater

behavioural and emotional problems, as well as a greater degree of symptoms, cognitive skills, and delayed speech-language age development as the most crucial issues because their parents' psychological well-being is severely damaged. As a result, if a child's behavioral and emotional issues are identified early and addressed in the comprehensive intervention plan, it may help parents improve their quality of life and psychological well-being, as well as prevent the onset of stress in young parents of children with ASD.

**Conflict of Interest:** No

## References:

1. Abidin, R., Flens, J. R., & Austin, W. G. (2006). *The parenting stress index*. Lawrence Erlbaum Associates Publishers.
2. Achenbach, T. M., & Rescorla, L. A. (2000). *Manual for the ASEBA preschool forms and profiles* (Vol. 30). Burlington, VT: University of Vermont, Research centre for children, youth, & families.
3. Allen, K. A., Bowles, T. V., & Weber, L. L. (2013). Mothers' and Fathers' Stress Associated with Parenting a Child with Autism Spectrum Disorder. *Autism Insights*, (5).
4. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders-5*. Washington, DC: American Psychiatric Association.
5. Balboni, G., & Ceccarani, P. (2003). Individuals with mental retardation and a sensorimotor disorder: Assessment of disability. In *Advances in learning and behavioral disabilities*. Emerald Group Publishing Limited.
6. Chakraborty, S., Thomas, P., Bhatia, T., Nimgaonkar, V. L., & Deshpande, S. N. (2015). Assessment of severity of autism using the Indian scale for assessment of autism. *Indian journal of psychological medicine*, 37(2), 169-174.
7. Cheatham, K. L., & Fernando, D. M. (2022). Family Resilience and Parental Stress in Families of Children with Autism. *The Family Journal*, 30(3), 419-426.
8. Choi-Bae, T. (2019). *Factors Associated with Parenting Stress among Korean-American Parents with Children with Autism Spectrum Disorders* (Doctoral dissertation, Alliant International University).
9. Christi, R. A., Roy, D., Heung, R., & Flake, E. (2022). Impact of Respite Care Services Availability on Stress, Anxiety and Depression in Military Parents who have a Child on the Autism Spectrum. *Journal of Autism and Developmental Disorders*, 1-15.
10. Clifford, T. (2011). *Support groups for parents of children with autism spectrum disorders: Predictors and effects of involvement* (Doctoral dissertation, Queen's University).
11. Derguy, C., M'bailara, K., Michel, G., Roux, S., & Bouvard, M. (2016). The need for an ecological approach to parental stress in autism spectrum disorders: The combined role of individual and environmental factors. *Journal of Autism and Developmental Disorders*, 46(6), 1895-1905.
12. Di Renzo, M., Guerriero, V., Petrillo, M., & Bianchi di Castelbianco, F. (2021). What is Parental Stress Connected to in Families of Children with Autism Spectrum Disorder? Implications for Parents' Interventions. *Journal of Family Issues*, 0192513X211030735.
13. Drogomyretska, K., Fox, R., & Colbert, D. (2020). Brief report: stress and perceived social support in parents of children with ASD. *Journal of autism and developmental disorders*, 50(11), 4176-4182.
14. Duchene, M. S. (2015). *Maternal experiences of parenting children with autism spectrum disorder: A qualitative analysis* (Doctoral dissertation, University of Maryland, College Park).
15. Firth, I., & Dryer, R. (2013). The predictors of distress in parents of children with autism spectrum disorder. *Journal of Intellectual and Developmental Disability*, 38(2), 163-171.
16. Giovagnoli, G., Postorino, V., Fatta, L. M., Sanges, V., De Peppo, L., Vassena, L., ... & Mazzone, L. (2015). Behavioral and emotional profile and parental stress in preschool children with autism spectrum disorder. *Research in developmental disabilities*, 45, 411-421.
17. Hastings, R. P., & Johnson, E. (2001). Stress in UK families conducting intensive home-based behavioral intervention for their young child with autism. *Journal of Autism and Developmental Disorders*, 31(3), 327-336.

18. Hastings, R. P., Kovshoff, H., Ward, N. J., Espinosa, F. D., Brown, T., & Remington, B. (2005). Systems analysis of stress and positive perceptions in mothers and fathers of preschool children with autism. *Journal of autism and developmental disorders*, 35(5), 635-644.
19. Melli, S., Grossi, E., Zarbo, C., & Compare, A. (2016). Mental stress in parents and siblings of autistic children: a review of the literature and an original study of the related psychological dimensions. *Psychological distress*, 115-127.
20. 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.
21. Mukherjee, S. B., Malhotra, M. K., Aneja, S., Chakraborty, S., & Deshpande, S. (2015). Diagnostic accuracy of Indian Scale for Assessment of Autism (ISAA) in children aged 2–9 years. *Indian pediatrics*, 52(3), 212-216.
22. Muratori, L. M., Lamberg, E. M., Quinn, L., & Duff, S. V. (2013). Applying principles of motor learning and control to upper extremity rehabilitation. *Journal of Hand Therapy*, 26(2), 94-103.
23. Rivard, M., Terroux, A., Parent-Boursier, C., & Mercier, C. (2014). Determinants of stress in parents of children with autism spectrum disorders. *Journal of autism and developmental disorders*, 44(7), 1609-1620.
24. Schieve, L. A., Blumberg, S. J., Rice, C., Visser, S. N., & Boyle, C. (2007). The relationship between autism and parenting stress. *Pediatrics*, 119(Supplement\_1), S114-S121.
25. Schopler, E., Reichler, R. J., DeVellis, R. F., & Daly, K. (1980). Toward objective classification of childhood autism: Childhood Autism Rating Scale (CARS). *Journal of autism and developmental disorders*.
26. Sikora, D. M., Hall, T. A., Hartley, S. L., Gerrard-Morris, A. E., & Cagle, S. (2008). Does parent report of behaviour differ across ADOS-G classifications: Analysis of scores from the CBCL and GARS. *Journal of autism and developmental disorders*, 38(3), 440-448.
27. Sim, A., Vaz, S., Cordier, R., Joosten, A., Parsons, D., Smith, C., & Falkmer, T. (2018). Factors associated with stress in families of children with autism spectrum disorder. *Developmental neurorehabilitation*, 21(3), 155-165.
28. Sim, A., Vaz, S., Cordier, R., Joosten, A., Parsons, D., Smith, C., & Falkmer, T. (2018). Factors associated with stress in families of children with autism spectrum disorder. *Developmental neurorehabilitation*, 21(3), 155-165.
29. Tehee, E., Honan, R., & Hevey, D. (2009). Factors contributing to stress in parents of individuals with autistic spectrum disorders. *Journal of Applied Research in Intellectual Disabilities*, 22(1), 34-42.
30. Togneri, L. T. (2014). *Parenting stress, psychological well-being, depression, and anxiety in parents of children with and without pervasive developmental disorders*. Alliant International University.
31. Zablotzky, B., Anderson, C., & Law, P. (2013). The association between child autism symptomatology, maternal quality of life, and risk for depression. *Journal of autism and developmental disorders*, 43(8), 1946-1955.
32. Zablotzky, B., Bradshaw, C. P., & Stuart, E. A. (2013). The association between mental health, stress, and coping supports in mothers of children with autism spectrum disorders. *Journal of autism and developmental disorders*, 43(6), 1380-1393.
33. Zaidman-Zait, A., Mirenda, P., Zumbo, B. D., Georgiades, S., Szatmari, P., Bryson, S., ... & Pathways in ASD Study Team. (2011). Factor analysis of the Parenting Stress Index-Short Form with parents of young children with autism spectrum disorders. *Autism Research*, 4(5), 336-346.
34. Zimmerman, E. T. (2013). *A pilot study exploring the educational and social/emotional benefits of web-based groups for parents of adolescents with Autism Spectrum Disorders* (Doctoral dissertation, University of Denver).