

**Depression Anxiety and Stress of Caregivers of Children with Autism Spectrum  
Disorder at Special Schools in Chennai**

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**Abstract**

The present impact of the COVID-19 pandemic on families of Autism children's, Caregivers play a major role and caring for the individual of autism spectrum disorder (ASD) children's in ideal circumstances, and it can be a stressful and high degree of disturbance in life. The purpose of this empirical research paper is to examine the Depression, Anxiety, and Stress of caregivers of autism children at three special schools in Chennai. The objectives of the paper are to describe the socio-demographic characteristic of the respondents to measure the level of depression, anxiety, and stress among respondents and to find out the statistically significant relationship/difference between selected socio-demographic Characteristic of Respondents and dependent variables. A descriptive research design has adopted. The universe of the paper consists of caregivers of autism children who are studying at three special schools in Chennai, there are about 150 Special children are studying in three special schools, out of these, 60 caregivers of autism children were selected as a sample by adopting simple random sampling using lottery method and a semi-structured questionnaire was prepared in order to understand the socio-demographic characteristic of the respondents along with DASS-42 items was used. The questionnaire method was adopted. The collected data has been analyzed using Statistical Package for Social Science version 20. The study results are revealed in Section VI of Results.

**Key Words:** Autism Spectrum Disorder (ASD), Caregivers, DASS (Depression, Anxiety, Stress), Special Schools.

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## I. Introduction

Autism is defined as a disorder of neural development characterized by impairment of social interaction and communication and by restricted and repetitive behavior of the ASD children [1]. It affects the information processing in the brain by altering how nerve cells and their synapses connect and organize. Autism is associated with Burden and stress of the Caregivers and it is compared with children intellectual, developmental, and physical disabilities [2,3]. The demands placed on the caregivers of the ASD children with autism associate with higher overall incidence of Caregivers Depression, anxiety, and Stress [4].

The first step in describing a child with autistic behavior is to describe their nonverbal connection to their Caregivers [5]. Many autistic children suffer from both receptive and expressive dysfunction. The child may be selective in hearing, such as when they hear the television, but does not respond to spoken efforts to engage them. Often Caregivers notice stereotypic behaviors such as hand or finger movements, toe walking, finger movement in front of the eyes, or spinning. Aversion to eye contact, touch, or hugging, that are typical in daily living, may also be a significant observation for the ASD Children's [6].

Caregivers of ASD children face numerous challenges, and reported increased psychological distress including depression Anxiety and Stress among them [7]. In this study from Special schools from Chennai showed that 60 percent of caregivers of autistic children had severe depression, Anxiety and Stress. Moreover, most families with Autism child reported that they had a high level of Stress [8,9]. This report shows 80 percent of caregivers of autistic children had moderate to extremely heavy level of depression, and there was a positive correlation between depressive symptoms [10]

## II. Review of Literature

The caregivers experience is commonly perceived as a chronic stressor, and often the results the negative psychological, behavioral, and physiological effects on their daily lives and health. In this study the caregiver's burden is complex and complicated by multiple competing priorities, because caregivers are often faced with multiple concurrent stressful events and extended, unrelenting stress, they may experience negative health effects and *Margaret F Bevans, (2012)* concludes that psychological, behavioral, and physiological effects of caring for a loved one's and expressed the caregiver's burden is complex and complicated by multiple competing priorities. The study of depression prevalence and burden

among caregivers of children with autistic spectrum disorder and the related factors. This is a cross-sectional descriptive measure included questionnaires and burden interview. Based on the study *Tiraya Lerthattasilp, (2015)*, prevalence of depression in and severe burden on caregivers of autistic children from the present study with low Factors related to the burden were months after diagnosed, the number of caregivers problems and time that caregiver spent with ASD children's and their communication problems and inappropriate or odd repetitive behaviors. In general, mothers of children with autism spectrum disorder (ASD) experience chronic stress comparable to combat soldiers.

Recent research suggests that respite care may potentially reduce stress among caregivers. However, greater understanding of this relationship is needed. *Whitmore KE, (2016)*, find solution to integrative and examined the relationship between respite care and stress among caregivers of children with ASD, the results of this integrative review provide some evidence that respite care use may be associated with a decrease in stress among caregivers of children with ASD. As per the caregivers, the stress, depression, and anxiety were higher in CASD compared to other caregivers in the control group. *Omar A Al-Farsi, (2016)*, aimed to examine whether there is variation in the performance of indices of stress, depression, and anxiety explored via Depression, Anxiety and Stress Scale 21 among CASD, caregivers of children with intellectual disabilities, and caregivers of typically developing children. there are strong grounds to contemplate the mechanism to help such a vulnerable group of family caregivers. The primary caregiver reports pain/ discomfort (42%) and anxiety / depression (40%). In caring the ASD children's they mostly experienced problems in relationship with the child (84%) and in combining the care with daily activities (51%), children's with ASD had relevantly low quality of life. *Leontine W Ten Hoppen (2019)*, children with an autism spectrum disorder (ASD) and their primary and secondary caregivers are derived the fulfillment from caring for their affected ASD children's.

### **III. Research Methodology**

The purpose of this study paper is to examine the Depression, Anxiety, and Stress of caregivers of autism children at three special schools in Chennai. to describe the socio-demographic characteristic of the respondents to measure the level of depression, anxiety, and stress among respondents and to find out the statistically significant relationship /difference between selected socio-demographic characteristic of Respondents and dependent variables. A Research Design is the 'blueprint' that enables the investigator to come up with

solutions to problems and guides him or her in the various stages of research. The universe of the paper consists of caregivers of autism children who are studying at three special schools in Chennai, there are about 150 Special children are studying in three special schools, out of these, 60 caregivers of autism children were selected as a sample by adopting simple random sampling using lottery method and a semi-structured questionnaire was prepared to understand the socio-demographic characteristic of the respondents along with DASS-42 items was used. The tool used to collect the data was a pre-structured interview schedule. The interview schedule consisted of questions in the order of the objectives of the study.

#### IV. Hypothesis Formulated for the Study

**Hypothesis 1:** There is a significant relationship between Age of the respondents with regards to Depression, Anxiety and Stress.

**Hypothesis 2:** There is a significant difference between Gender of respondents with regardsto Depression, Anxiety and Stress.

**Hypothesis 3:** There is a significant difference between Birth Order of respondents with regards to Depression, Anxiety and Stress.

#### V. Analysis and Interpretations

The analysis and interpretation deal with the study of the observations of the caregivers involved for the autism students, in the collected data and the results are integrated as table wise and compare the results as:

Table -1Distribution of respondents with Age, Gender and Birth order for Socio-Demographic of Caregivers of the ASD Children's.

Factors	Category	Frequency (n: 60)	Percentage (100%)
Age	30-40 Years	31	51.7
	41-50 Years	26	43.3
	51-55 Years	3	5.0
Gender	Male	21	35.0
	Female	39	65.0

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Birth Order	First Birth	35	58.3
	Second Birth	25	41.7

From the above results, more than half (51.7 percent) of the respondents are in the age group of 30-40 years, more than two third (65.0 percent) of the respondents are female and more than half (58.3 percent) of the ASD children are First Birth Order.

Table-2: Distribution of Respondents Depression /Anxiety / Stress of Caregivers of the

Dimensions	Caregivers of ASD Children's (in percentage)				
	Normal	Mild	Moderate	Severe	Extremely Severe
Depression	28.3	18.3	11.7	6.7	35.0
Anxiety	50.0	0	8.3	16.7	25.0
Stress	36.7	3.3	21.7	25.0	13.3

ASD Children's.

From the above table, one third (35.0 percent) of the respondents have extremely severe depression and nearly half (50.0 percent) of the respondents have normal Anxiety and one third (36.7 percent) facing normal Stress.

Table-3: 'Z' Test between Gender of Respondents and Sub scale of DASS of the Caregivers of the ASD Children's

SI No	Dimensions		Mean	S.D.	Statistical Inference
1	Depression	Male	11.90	5.319	Z = -3.619 P<0.01 Highly Significant
		Female	20.97	13.873	
2	Anxiety	Male	8.333	4.851	Z = -3.446 P<0.01 Highly Significant
		Female	14.69	9.440	
3	Stress	Male	14.90	6.640	Z = -2.310 P<0.01 Highly Significant
		Female	21.69	12.520	

While analyzing the 'Z' statistical test table reveals that the gender of the respondents, who

are female had a higher mean score (20.97) in depression, when compared to mean score (11.90) of the respondents who are male, which was found to be that there is a high level of a statistically significant difference between gender of the respondents and depression and [t<sub>53.942</sub> =3.619]. It has been inferred that respondents who are female have reported higher depression. Similarly, there is a high level of a statistically significant difference between gender of the respondents for Anxiety and Stress, [t<sub>53.942</sub> =3.446] & [t<sub>53.942</sub> =2.310], respectively.

Table-4: ‘Z’ Test between Birth Order of Respondents and Sub scale of DASS of the Caregivers of the ASD Children’s

SI No	Dimensions		Mean	S.D.	Statistical Inference
1	Depression	First Order	14.63	13.337	Z = -2.596 P<0.05 Significant
		Second Order	22.24	9.373	
2	Anxiety	First Order	9.14	7.523	Z = -3.887 P<0.01 Highly Significant
		Second Order	17.12	8.054	
	Stress	First Order	16.26	12.689	Z = -2.856 P<0.01 Highly Significant
		Second Order	23.60	7.089	

While analyzing the ‘Z’ statistical test table reveals that the Birth order of the respondents, who are Second birth order have higher mean score ( 22.24) with first order (14.63) in depression, similarly for Second order (17.12) with First order (9.14) for Anxiety & also Second order (23.60)with First order (16.26) for Stress, when compared to the mean score of birth order, which was found to be that there is statistical significant difference between the birth order for Depression, Anxiety & Stress. It has been inferred that respondents with second birth order are significant in Depression and Highly Significant in Anxiety and Stress than first birth order. Respondents born in second birth have reported higher Depression, and Anxiety and Stress.

Table-5 KarlPearson’sCo-efficientofCorrelationbetweenAge of the Caregivers and Subscale of DASS

Variables	Correlation Co-Efficient	Strength of Relationship	Statistical Inference
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Age and Depression	$r=-.431$	Moderate	$P < 0.01$ Highly Significant
Age and Anxiety	$r=-.346$	Weak	$P < 0.01$ Highly Significant
Age and Stress	$r=-.386$	Weak	$P < 0.01$ Highly Significant

The Karl Pearson Co-efficient of correlation statistical test table portrays that there is high level significant relationship between age of respondents with negative moderate level of Depression similarly there is high level of significant relationship between the age of the respondent's with negatively weak in Anxiety and Stress.

Table -6 Inter Correlations Matrix between Depression, Anxiety and Stress of Caregivers of  
ASD Children's

Variables	Depression	Anxiety	Stress
Depression	1	.868**	.971**
Anxiety	.868**	1	.854**
Stress	.971**	.854**	1

\*\* Correlation is significant at the 0.01 level.

While analyzing the Inter correlation matrix, in inter correlations is significant relationship between Depression, Anxiety and Stress with caregivers of ASD children.

## VI. Results

Study results reveals as more than one-third of the respondents reported extremely severe level of depression, exactly half percentage of the respondents reported normal level of anxiety and more than one-third of the respondents of the caregivers of autism children have normal level of stress (refer Table 2). There is high level significant relationship between age of respondents with negative moderate level of Depression similarly there is high level of significant relationship between the age of the respondent's with negatively weak for Anxiety and Stress and also respondents who are born in second order have reported a higher depression, anxiety, and stress, than the which was found between

first birth order of the respondents.

## **VII. Suggestions**

Considering the findings of this study, the following recommendations are made to ensure effective and right level of achievement towards to improve the training of the ASD children with Verbal Behavior Analysis and recommends more methods to be adopted to give the training for Vulnerable caregiver's for ASD children:

1. Only three Special schools are selected for collecting the data in the present study, a future study can be conducted by comparing the data with a greater number of Autism Special schools, which provide Various trainings of the caregivers of Autism children to overcome depression, anxiety, and stress.
2. Further Studies can be done on experimental models such as to ease the psychological problems for caregivers of the ASD Children.
3. In this study, Caregiver's depression, anxiety, and Stress are focused, A Future study can be carried out by collecting the data from more number Special schools of female caregivers, who is mostly involved for the caring of the Autism Spectrum Disorder children's than male caregivers.
4. This study has focused on the psychosocial and psychological status of the caregivers of ASD children and has identified that the caregivers do experience high levels of depression, anxiety, and stress. A qualitative study can be done in future to find out the specific reasons for the stress, depression, and anxiety for the caregivers of ASD children

## **VIII. Conclusion**

This study was systematically analyzed, based on the collection of data in socio democratic profile and DAS scale from Various Special Autism Schools in Chennai. To aim to determine caregivers Depression Anxiety and stress among the Autism Spectrum Disorder children. From the Above review and Results, the researcher experience, more than three fourth of the caregivers experience severe level of Depression Anxiety and Stress. The researcher came out with implication to improve the social democratic and psychological status among the caregivers, who is really caring the Autism Spectrum disorder children. This result contributes an overall incidence of Depression, Anxiety and Stress among the caregivers of ASD children. Author recommends the utilization of this results to improve the interventions for easing the caregiver level of depression anxiety and Stress and improving the

psychological behaviors of the caregivers, to help and improve their good psychological well-being.

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### **X. References**

- [1] Lerthattasilp T and Charernboon T (2015), titled as "Depression and Burden among Caregivers of children with Autism Spectrum Disorder" in J med Assoc Thai 2015, Volume 98, Supplementary 2, Page S45 to S52.
- [2] Higgins DJ, Bailey SR, Pearce JC (2005), "Factors associated with functioning style and coping strategies of families with a child with an autism spectrum disorder". Autism 2005; Sage Journals 9: Page 125-137.
- [3] Yirmiya N, Shaked M (2005) "Psychiatric disorders in parents of children with autism: a meta-analysis". Journal of Child Psychol Psychiatry, Page 69-83.
- [4] Mugno D, Ruta L, D'Arrigo VG, Mazzone L (2007) titled as "Impairment of quality of life in parents of children and adolescents with pervasive developmental disorder". Health Qual Life Outcomes 2007; 5: 22.
- [5] Anil Chauhan Jitendra K Sahu (2019), titled as "Prevalence of autism spectrum disorder in Indian children: A systematic review and meta-analysis" in Neurology India | Volume 67 | Issue 1 | January-February 2019, Page 100 to 104.
- [6] Anil Sheety, B Sanjeev Rai (2014), titled as "Awareness and Knowledge of Autism Spectrum Disorders among Primary School Teachers in India" in International Journal of health and Research, ISSN no: 2249-9571, Page: 80 to 85.
- [7] Antonia Parmeggiani, Arianna Corinsaldesi (2019), titled as "Early features of Autism Spectrum Disorder: a cross Sectional Study" in Italian Journal of Pediatrics in Volume 45: 144, Page 1 to 8.

- [8] Bill J. Duke & Dennis Staton, (2013), titled in “Dimensional Characteristics of Children and Adolescents with Mood Disorders and Autism Spectrum Disorders” in International Journal of Clinical medicine
- [9] P S Divya, Elakiya, Elango (2019), titled as “Awareness of Autism Spectrum Disorder among Non-Medical Students – A Survey” in International Journal of health and Review, ISSN no : 2349-9788, Page : 60 to 63.
- [10] Zhou Ting, Wang Yiting (2018), titled as “Affiliate Stigma and Depression in caregivers of children with ASDA in China: Effects of Self-esteem, shame and Family Functioning” in Psychiatry Research, ISSN no: 0165-1781, Page: 260 to 265.
- [11] Margaret F Bevans (2012), titled as “Affiliate Stigma and Depression in caregivers of children with ASDA in China: Effects of Self-esteem, shame and Family Functioning” in Psychiatry Research, ISSN no: 0165-1781, Page: 260 to 265.
- [12] Leontine W Ten Hoopen, Pieter F A de Nijs, Jorieke Duvekot, Kristin Greaves Lord (2019), titled as “Children with an Autism Spectrum Disorder and Their Caregivers: Capturing Health-Related and Care-Related Quality of Life” in Journal of Autism Developmental Disorder, Springer Journal, Volume 50, Page 263-277.
- [13] Tiraya Lerthattasilp MD, Thammanard Charernboon, Issarapa Chunsuwan, Panida Siriumpunkul (2015), titled as “Depression and Burden among Caregivers of Children with Autistic Spectrum Disorder” J Med Assoc Thai 2015; 98 (Suppl. 2): S45-S52.
- [14] Omar A Al-Farsi , Yahya M Al-Farsi, Marwan M Al-Sharbati, Samir Al-Adawi (2016), titled as “Stress, anxiety, and depression among parents of children with autism spectrum disorder in Oman: a case-control study”, Journal of Neuropsychiatric Disease and Treatment, 2016, Volume 12 , Page 1943-1951.
- [15] Whitmore K W (2016), titled as “Respite Care and Stress Among Caregivers of Children with Autism Spectrum Disorder: An Integrative Review”. Journal of Pediatric Nursing, Volume 31(6), August 2016, Page 630 -652.