



DIFFERENTIAL DEMOGRAPHICS OF PARENTING STRESS IN MOTHERS OF CHILDREN WITH HIGH FUNCTIONING AUTISM

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Abstract: The study examined the differential influence of demographic factors on parenting stress experienced by mothers of children with high functioning autism (HFA). Six null hypotheses were tested by collecting data from a simple random sample of 128 mothers of children with HFA, who were enrolled to various special schools in Ernakulam district (Kerala, India), by administering the Stress Inventory for Mothers of Children with Autism Disorder (SIMCAD) and a Personal Data Sheet. Analysis of the data by employing independent sample t-test, one way ANOVA and Scheffe's post-hoc test revealed that demographic factors like gender of the children with autism, residential locale of the family, type of family, age of the children with HFA, and age of the mother exert significant differential effect on the parenting stress experienced by the mothers of children with HFA. Educational qualification of the mothers, however, do not have any significant differential influence on their stress. Mothers of autistic boys compared to mothers of autistic girls, urban mothers compared to their rural counterparts, and mothers of nuclear families compared to those living in joint families experience higher parenting stress. Likewise, age of the HFA child and age of the mother herself are significant factors in discriminating mothers of children with high functioning autism on the basis of their parenting stress. Educational qualification of the mother, however, is not a decisive factor in the parenting stress they experience while bringing up a child with HFA.

Key words: Parenting stress, Children with high functioning autism, Demographic factors.

1. INTRODUCTION

Parenting is a challenging task, especially when it comes to raising a kid with special needs. The level of stress increases significantly when it involves parenting a child with autism spectrum disorder (Alibekova et al., 2022; Miranda, Mira, Berenguer, Rosello & Baixauli, 2019). None of the parents are ever adequately equipped to assume the role of a parent for a child with special developmental needs (Hanssen & Erina, 2022; Love, Zagona, Kurth & Miller, 2017). When a parent becomes aware of their child's impairment, they face a significant traumatic experience (Bravo-Benitez, Perez-Marfil, Roman-Alegre & Cruz-Quintana, 2019; Stewart, McGillivray, Forbes & Austin, 2016). Parents frequently experience a range of emotional phases, including shock, sorrow, denial, anger, despair, and acceptance, as they grapple with the loss of their previously known child (Marcinechova, Zahorcova & Lohazerova, 2024; Mihandoust, Khademi & Radfar, 2021). Raising children diagnosed with autism spectrum disorder (ASD) might provide greater levels of stress and difficulty compared to parenting normally developing children or those diagnosed with other developmental abnormalities (Lievore, Lanfranchi & Mammarella, 2024; Acharya & Sharma, 2021; Ilias, Cornish, Kummar, Park & Golden, 2018). This is primarily attributed to the increased demands placed on parents' time, energy, finances, emotions, and potential lack of confidence in their ability to meet their child's needs (Crowell, Keluskar & Gorecki, 2019). Raising a child diagnosed with ASD presents a multifaceted scenario characterised by persistent stress experienced by both parents, particularly for the mother (Crowell, Keluskar & Gorecki, 2019). Mothers face a heightened susceptibility to experiencing "carer syndrome" or "carer burnout," which encompasses physical, emotional, and mental fatigue, as well as feelings of wrath, hatred, or guilt, stemming from the overwhelming responsibility of caring for a child diagnosed with autism. The effect of parenting stress on individuals' physical and psychological well-being varies, contingent upon their psychological capacity to effectively manage the stresses. Furthermore, parents experiencing high levels of stress are less capable of implementing treatments for their children with impairments, resulting in less developmental progress for their children. The absence of support for parental mental health requirements is a substantial hazard to the psychological, physical, and social welfare of parents with children diagnosed with autism spectrum disorder. This also endangers the family's ability to adapt and hampers the child's potential. Studies exploring factors influencing parenting stress of children with autism is not sparse in literature (e.g., Alkhonezan, Alkhonezan, Alshayea, Bukhari & Almhizai, 2023; Ilias, Cornish, Kummar, Park & Golden, 2018; Hassan & Inam, 2013). The differential influence of socio-demographic factors on the stress experienced by mothers of children with ASD is an area of research seldom focused. In this context, the present study is a modest attempt to explore how selected demographic factors exert differential influence on the distribution of parenting stress in mothers of children with high functioning autism.

2. OBJECTIVES

The objective of the study is to find out the differential influence of following demographic factors on parenting stress of mothers of children with high functioning autism (HFA):

- a) Mothers of HFA girls and HFA boys
- b) Mothers residing in rural and urban areas
- c) Mothers from nuclear and joint families
- d) Age of the child
- e) Age of the mother
- f) Educational qualification of the mothers.

3. HYPOTHESES

The following null hypotheses were tested for the study:

- H₀₁:** There is no significant difference between mothers of HFA boys and HFA girls with respect to their parenting stress.
- H₀₂:** There is no significant difference between mothers of children with HFA from rural areas and urban areas with regard to the parenting stress they experience.
- H₀₃:** There is no significant difference between mothers of children with HFA from joint families and those from nuclear families with regard to the stress they experience.
- H₀₄:** Mothers of children with HFA do not differ significantly in the stress they experience according to their level of education.
- H₀₅:** Mothers of children with HFA do not differ significantly in the stress they experience according to the age of the child with HFA.
- H₀₆:** Mothers of children with HFA do not differ significantly in the stress they experience according to their chronological age.

4. METHODOLOGY

Normative Survey method was adopted for the present study. Mothers of children with HFA, selected from different special schools in Ernakulam Revenue District constituted the sample for the study (N = 128). Simple random technique was used for selecting the sample. The data for the study were collected by administering the Stress Inventory for Mothers of Children with Autism Disorder (SIMCAD) (Arjunan & Bindu, 2014). The SIMCAD is a standardized instrument to assess the stress experienced by the parents of autistic children while they bring up the child. The inventory consists of 30 items which covers 12 different potential areas of stress for parents of a disabled child. The inventory was found to have a construct validity of 0.59 and a concurrent validity of 0.63. The test-retest reliability (4 weeks interval) of the instrument was found to be 0.72. A personal data sheet, developed by the investigators, were used to collect socio-demographic details of the mothers. The tool was administered on the sample under standardized conditions and the data thus collected were analysed using appropriate descriptive and inferential statistical techniques, performed both manually as well as with the help of SPSS.

5. ANALYSIS AND INTERPRETATION

In order to find out the differential influence of gender of the HFA child on the parenting stress of their mothers, the SIMCAD scores for the mothers of HFA boys and mothers of HFA girls were compared by applying the independent sample t-test. The data and results of the analysis done in this regard are presented in Table 1.

Table 1: Comparison of the SIMCAD scores of the mothers of HFA boys and HFA girls

Sub-samples	Statistical Indices			t-value	Sig.
	N	M	SD		
Mothers of HFA boys	92	54.67	15.05	2.82	.01
Mothers of HFA girls	36	45.72	18.24		

The t-value obtained on comparing the SIMCAD scores of mothers with male and female HFA child is significant ($t = 2.82$; $p < 0.01$), showing that the mothers of HFA boys and mothers of HFA girls differ significantly with regard to the stress experienced by them, the difference being in favour of the mothers of HFA girls, who experience lesser stress in daily life compared to the mothers of HFA boys. The differential effect of residential locale on the stress experienced by mothers of children with high functioning autism were explored by comparing mothers of HFA child from rural and urban areas with respect to the SIMCAD scores. The data and result of the independent sample t-test performed in this context is given in Table 2.

Table 2: Comparison of the SIMCAD scores of the mothers of children with HFA from rural and urban areas

Sub-samples	Statistical Indices			t-value	Sig.
	N	M	SD		
Rural	67	41.63	16.46	2.02	.05
Urban	61	47.44	15.77		

The t-value obtained on comparing the stress of mothers of children with HFA from rural and urban area shows that the groups differ significantly with regard to their stress experience ($t = 2.02$; $p < 0.05$). A closer observation of the mean values of SIMCAD scores show that mothers from urban area experience more stress in daily life than their counterparts from rural areas. The differential influence of family type on parenting stress of mothers of children with HFA were brought out by comparing the mothers living in nuclear families and joint families with regard to their SIMCAD scores. The data and result of the t-test carried out in this context is given in Table 3.

Table 3: Comparison of the SIMCAD scores of the mothers of children with HFA from nuclear families and joint families

Sub-samples	Statistical Indices			t-value	Sig.
	N	M	SD		
Nuclear Families	106	47.08	17.03	2.74	.01
Joint Families	22	20.13	16.27		

As evident from Table 3, the t-value obtained on comparing the SIMCAD scores of mothers from nuclear and joint families is significant at 0.01 level indicating a true difference between the groups with regard to their parenting stress ($t = 2.74$; $p < 0.01$ level). A scrutiny of the data clearly indicates that the mean stress score for mothers from nuclear families is much higher than that for mothers from joint family.

In order to find out the differential effect of the age of the children with high functioning autism on the parenting stress, the mothers were categorized into three groups based on the age of children with HFA. The 'high age group' included mothers of children with HFA above the age of 14, 'average age group' included mothers of children between the age 7 and 13, and the 'low age group' included mothers of children below the age of 6. One-way ANOVA was then carried out to find the differences among the groups, and the results obtained thereby is presented in Table 4.

Table 4: Comparison of parenting stress of mothers of HFA child in different age groups

Stress	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4580.803	2	2290.401	8.696	.001
Within Groups	32923.166	125	263.385		
Total	37503.969	127			

The F-value estimated is significant at 99.9% confidence interval. It indicates the presence of a true difference among the age groups compared. To put differently, the stress experienced by mothers of children with HFA differ significantly according to the age of the child. LSD post-hoc test was further carried out to find out whether the obtained significant differences exist between all the pairs of groups considered. The result of the post-hoc test of multiple comparisons is given in Table 5.

Table 5: Post hoc tests for comparisons of the parenting stress of mothers with HFA child in different age groups

(I) Age of the Child	(J) Age of the Child	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
LOW AGE GROUP	Average	-12.760*	3.925	.001	-20.53	-4.99
	High	-22.038*	5.486	.000	-32.90	-11.18
AVERAGE AGE GROUP	Low	12.760*	3.925	.001	4.99	20.53
	High	-9.278*	4.519	.042	-18.22	-.33
HIGH AGE GROUP	Low	22.038*	5.486	.000	11.18	32.90
	Average	9.278*	4.519	.042	.33	18.22

* The mean difference is significant at the 0.05 level.

The results of the post hoc test show that there exist significant differences among different pairs of groups compared. Inspection of the mean differences shows that mothers with comparatively younger autistic child experience lesser stress than the other two groups. It is also evident that the stress of the mother increases with increasing age of the autistic child.

In order to find out the differential influence of mothers' own age on the parenting stress they experience while bring up a child with high functioning autism, mothers in different age groups were compared. As a first step, the mothers were categorized into high, average and low age group based on the mean ($M = 34.65$) and standard deviation ($\sigma = 6.37$) of their age, by employing the $M \pm \sigma$ principle. The SIMCAD scores of the groups were then compared by employing one way ANOVA, the result of which is given in Table 6.

Table 6: Comparison of high, average and low age group mothers of HFA children regarding their parenting stress

Stress	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4969.236	2	2484.618	9.678	.001
Within Groups	32092.256	125	256.738		
Total	37061.492	127			

The F-value obtained on comparing the age groups with regard to the stress experience is significant at 99.9% confidence interval ($F = 9.678$; $p < .001$). This observation indicates the existence of a significant difference among the groups compared with regard to their stress. In order to find out whether the observed difference exist significantly among all the pairs compared, post hoc test was performed and the results are given in Table 7.

Table 7: Post hoc tests for comparisons of parenting stress of high, average and low age group mothers of HFA children

(I) Age of the mother	(J) Age of the mother	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
LOW AGE GROUP	Average	9.792*	3.491	.006	2.88	16.70
	High	22.290*	5.127	.000	12.14	32.44
AVERAGE AGE GROUP	Low	-9.792*	3.491	.006	-16.70	-2.88
	High	12.498*	4.487	.006	3.62	21.38
HIGH AGE GROUP	Low	-22.290*	5.127	.000	-32.44	-12.14
	Average	-12.498*	4.487	.006	-21.38	-3.62

* The mean difference is significant at the 0.05 level.

The results of the post hoc test for multiple comparisons of mean SIMCAD scores for different groups show that there exist significant differences between all the pairs compared. Scrutiny of mean differences makes it clear that the younger mothers experience more stress compared to the older groups.

Another important demographic factor considered in the study is the educational qualification of the mothers of autistic children. The research question posed was: "Does parenting stress of mothers of children with HFA vary significantly according to their educational qualification?" As a first step to answer the question, the respondents were classified into four groups based on

their educational status viz., Group-1 (*post-graduation or professional degree*), Group-2 (*graduation or diploma*), Group-3 (*higher secondary or secondary*), and Group-4 (*primary secondary*). The stress experiences of the groups are then compared by applying One-way ANOVA. The result of the analysis of variance performed in this context is given in Table 8.

Table 8: Comparison of mothers of HFA children having different educational qualification regarding their parenting stress

Stress	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	199.929	3	66.643	.224	.879
Within Groups	36861.563	124	297.271		
Total	37061.492	127			

The estimated F-value is not significant ($F = 0.224$; $p > .05$) which indicate that the groups compared are almost alike with regard to the demographic factor considered. In other words, educational status is not a decisive factor in moderating the stress of the mothers of children with high functioning autism.

6. CONCLUSION

The analysis revealed that the stress experienced by mothers of children with HFA is a function of the gender of the children. Bringing up an autistic boy contributes to more stress to the mother compared to the stress she experiences while bringing up an autistic girl. The rural-urban divide is evident in the parenting stress of mothers of autistic children. Mothers from urban areas experience more stress than their counterparts from rural areas. The type of family plays a decisive role in alleviating the stress experienced by mothers of autistic children. Those from nuclear family experience more stress than those from joint family. The size and type of family is as important as the affectional relationship among its members in the moments of trauma and crises in family life. The support and strength extended by family members give strength to each of the family members in discharging their responsibilities without experiencing much mental strain and emotional stress. This general observation is more so in the case of mothers in bringing up a child with developmental disability. The stress experienced by mothers of HFA children is a function of the age of the child. Mothers with comparatively younger children with HFA experience lesser stress than those with older children. Parenting stress of the mother increases with increasing age of the autistic child. Age of the mother is also a significant factor contributing to stress in bringing up a child with autism. The study revealed that mothers of younger age group experience more stress compared to the older groups. Education of the mother as such is not a significant factor contributing to the stress experienced by the mothers of autistic children. In the light of the findings of the study, five of the six null hypotheses, viz., H_{01} , H_{02} , H_{03} , H_{04} , and H_{05} were rejected; while the H_{06} is accepted.

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8. REFERENCES

- Acharya, S., & Sharma, K. (2021). Lived experiences of mothers raising children with autism in Chitwan district, Nepal. *Autism Research and Treatment*, 6614490. <https://doi.org/10.1155/2021/6614490>
- Alibekova, R., Kai Chan, C., Crape, B., Kadyrzhanuly, K., Gusmanov, A., An, S., Bulekbayeva, S., Akhmetzhanova, Z., Ainabekova, A., Yerubayev, Z., Yessimkulova, F., Bekisheva, A., Ospanova, Z., & Rakhimova, M. (2022). Stress, anxiety and depression in parents of children with high functioning autisms in Kazakhstan: prevalence and associated factors. *Global mental health (Cambridge, England)*, 9, 472–482. <https://doi.org/10.1017/gmh.2022.51>
- Alkhonezan, S. M., Alkhonezan, M. M., Alshayea, Y., Bukhari, H., & Almhezai, R. (2023). Factors influencing the lives of parents of children with high functioning autism in Saudi Arabia: A comprehensive review. *Cureus*, 15(11), e48325. <https://doi.org/10.7759/cureus.48325>
- Bravo-Benítez, J., Perez-Marfil, M. N., Roman-Alegre, B., & Cruz-Quintana, F. (2019). Grief experiences in family caregivers of children with high functioning autism (ASD). *International Journal of Environmental Research and Public Health*, 16(23), 4821. <https://doi.org/10.3390/ijerph16234821>
- Crowell, J. A., Keluskar, J., & Gorecki, A. (2019). Parenting behavior and the development of children with high functioning autism. *Comprehensive Psychiatry*, 90, 21–29. <https://doi.org/10.1016/j.comppsy.2018.11.007>
- Hanssen, N. B., & Erina, I. (2022). Parents' views on inclusive education for children with special educational needs in Russia. *European Journal of Special Needs Education*, 37 (5), 761-775. <https://doi.org/10.1080/08856257.2021.1949092>
- Hassan, K., & Inam, A. (2013). Factors contributing to stress among parents of children with autism. *Nurture*, 7, 1-8. <https://doi.org/10.55951/nurture.v7i1.64>
- Ilias, K., Cornish, K., Kummar, A. S., Park, M. S., & Golden, K. J. (2018). Parenting stress and resilience in parents of children with high functioning autism (ASD) in Southeast Asia: A systematic review. *Frontiers in Psychology*, 9, 280. <https://doi.org/10.3389/fpsyg.2018.00280>

- Lievore, R., Lanfranchi, S. & Mammarella, I.C. (2024). Parenting stress in autism: Do children's characteristics still count more than stressors related to the COVID-19 pandemic? *Current Psychology*, 43, 2607–2617. <https://doi.org/10.1007/s12144-023-04441-3>
- Love, H., Zagona, A., Kurth, J., & Miller, A. (2017). Parents' experiences in educational decision making for children and youth with disabilities. *Inclusion*, 5, 158-172. <https://doi.org/10.1352/2326-6988-5.3.158>.
- Marcinechova, D., Zahorcova, L. & Lohazerova, K. (2024). Self-forgiveness, guilt, shame, and parental stress among parents of children with high functioning autism. *Current Psychology*, 43, 2277–2292. <https://doi.org/10.1007/s12144-023-04476-6>
- Mihandoust, S., Khademi, M. & Radfar, M. (2021). Stages of grieving in fathers of autistic children: A qualitative study. *European Review for Medical and Pharmacological Sciences*, 25, 7698-7708. https://doi.org/10.26355/eurrev_202112_27616.
- Miranda, A., Mira, A., Berenguer, C., Rosello, B., & Baixauli, I. (2019). Parenting stress in mothers of children with autism without intellectual disability. Mediation of behavioral problems and coping strategies. *Frontiers in Psychology*, 10, 464. <https://doi.org/10.3389/fpsyg.2019.00464>
- Stewart, M., McGillivray, J., Forbes, D., & Austin, D. (2016). Parenting a child with an autism spectrum disorder: A review of parent mental health and its relationship to a trauma-based conceptualisation. *Advances in Mental Health*, 15(1), 4-14. <https://doi.org/10.1080/18387357.2015.1133075>.

