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Depression in Mothers of ASD Children and its Correlation with Social Support, Age, Severity, Education and Income

Ms. Eva Snehlata Kujur[1], Dr. Lalit Narayan[2], Dr. Damayanti Sethy[3], Ms. Dibyasha Sahoo[4]

[1]Sr.O.T Cum Jr.Lecturer, Occupational Therapy, National Institute For Locomotor Disabilities Director And Hod Occupational Therapy
[2]Occupational Therapy, National Institute For Locomotor Disabilities, Occupational Therapist National Institute For Locomotor Disabilities
[3]P.G Student, Occupational Therapy, National Institute For Locomotor Disabilities

ABSTRACT

Background: Children from autism suffer from difficulty. The parents of children with ASD are usually burdened and stressed and tend to have less social support; the mothers carry more burdens than the father.
Objectives: To evaluate depression in mothers of ASD children and its influence on different factors.
Methodology: Mothers of ASD children(n=100) were assessed with PHQ 9 for depression and MSPSS Questionnaire to evaluate the perceived social support of the mother.
Results: SPSS version 25 was used for statistical analysis. Correlation was established by using Pearson correlation test among different variables. PHQ 9 was significant more among the mothers of autistic children than the case control and socio-demographic factors impact on maternal depression (p=0.049), age, education, had no significant impact on maternal depression (p value 0.704,0.39). The social and financial support for autistic families were both significantly impacting the maternal depression.
Conclusion: The findings indicate that moderate depression is common among the mothers of autistic children, highlighting the psychological strain associated with caregiving. Mothers of these children do need psychological intervention.

Keywords: Depression, Autism, Education, Social Support

INTRODUCTION

Autism Spectrum Disorder (ASD) is a lifelong neurodevelopmental disorder characterised by persistent social communication impairments and restricted, repetitive behaviours. According to the Diagnostic and Statistical Manual, fifth edition (DSM-V), children with ASD have difficulties in interactive play, poor non-verbal communication, and repetitive movements (Centre's for Disease Control and Prevention, 2022[1].

The global prevalence of autism spectrum disorders is 62 per 10,000 people.[2] The prevalence of autism spectrum disorders in India is 1 in 250 individuals.[3]

Increased psychological distress has also been demonstrated in parents of children with ASD. Parents of

children with ASD experience high rates of PS, even in comparison to parents of children with other developmental disorders, intellectual difficulties and physical disabilities [4].

The parents of children with ASD are usually burdened and stressed and tend to have less social support; the mothers carry more burdens than the father[5].A study by Brianna Prio -Gambetti (2024) on Parent-couple satisfaction, parent depression, and child mental health in families with autistic children concluded mother's mood appears to have direct ties with the mental health problems of their autistic child whereas father's mood may be most sensitive to changes in the parent-couple relationship that result from child mental health problems[6]. Mother's mood appears to have direct ties with the mental health problems of their autistic child whereas father's mood may be most sensitive to changes in the parent-couple relationship that result from child mental health problems[6].

Many studies have reported that the behavioural problems of children with ASD were related to anxiety and depression as well as stress in the mothers [(7,8,9).] Children behavioural problems were positively correlated with maternal emotional problems and stress regardless of whether the total scores of the behavioural problems were evaluated by teachers or mothers [(10,11)]. Children behavioural problems (not the daily living skills or the child's diagnosis) were significantly associated with increased parenting stress and related emotional symptoms in the mothers of children with autism and developmental delay[7.] The behavioural problems of autistic children were one of the risk factors for parental anxiety and depression in a sample of 84 mothers and 18 fathers[12].

In previous studies, anxiety and depressive were assessed by the Self-Rating Anxiety Scale (SAS) and the Self-Rating Depression Scale (SDS); in an investigation conducted by Bitsika and colleagues, they found that approximately 45% of mothers had clinically significant anxiety, and 55% of them met the criteria for clinically significant depression[13].

In the literature it was seen that relatively fewer studies were conducted of the relationship of depression of mother of ASD children with social support provision. Additionally, correlation of the depression of mother of ASD child with education and income was also seen.

METHODOLOGY:

The total sample consisted of 100 mothers of ASD children recruited from the Occupational Therapy department, NILD. The severity of disability was assessed. Most of the participants were mothers ranging from 27 to 50 years. Child ages were normally distributed with the majority of the participants' children falling between ages 5 and 11 (n=48),11-16(n=39) and 7- 21(n=13).

The study was performed in the Department of Occupational Therapy, NILD, from January 2025 to October 2025.

CLASSIFICATION OF DATA: The data was classified according to the different variables viz, age, severity of disability, education a monthly income. The educational level of mothers was characterized into three groups as follows, low education level-up to class 9, middle education group-class 10 to Bachelor degree, High education group-Post graduation and professional degree. Monthly income was categorized into three groups of low income, middle income, and high-income group based on monthly incomes. The mothers of the children are grouped into the younger group in which the age is less than 35 years, older group where the age ranges between 36-50 years.

PROCEDURE: Written informed consent was obtained from all eligible mothers who were willing to participate in this study. Demographic data, medical and developmental histories of children with ASD were obtained. As well as socio-demographic features in mothers of children with ASD, levels of

depression were evaluated with the PHQ questionnaire. The variables, age, severity of disability, education, and monthly income were recorded. The inclusion criteria were having a child with ASD, without pregnancy or chronic diseases. The exclusion criteria were if the mother had a psychological disorder.

RESULTS

A total of 100 mothers of children diagnosed with autism spectrum disorder (ASD) participated in the study. The mothers were between **27–**50 years of age, with most falling in the 27–35 age group. The children's ages ranged from 5 to 21 years, with the largest proportion between **5–**11 years (n = 48), followed by 11–16 years (n = 39) and 17–21 years (n = 13).

Depressive symptoms measured by the PHQ9 scale showed that a majority of mothers experienced moderate levels of depression. Only a small proportion of mothers scored within the mild or minimal range. No participants showed severe depression.

1. **Correlation Between Severity of ASD and Maternal Depression:** Analysis revealed no significant correlation between the severity of the child's ASD and the level of depression in mothers ($p > 0.05$). This suggests that maternal depression was not dependent on the degree of disability of the child.
2. **Correlation Between Monthly Income and Maternal Depression:** The relationship between family income and depression levels in mothers was found to be statistically insignificant ($p > 0.05$). Mothers from low-, middle-, and high-income groups exhibited similar levels of depressive symptoms.
3. **Correlation Between Social Support and Maternal Depression:** A significant negative correlation was observed between social support and maternal depression ($p < 0.05$). Mothers who reported receiving adequate emotional, practical, or community support had lower depression scores, whereas those lacking social support showed higher depressive symptoms.
4. **Correlation Between Maternal Age, Education and Depression:** Maternal age and education level did not show significant associations with depression levels ($p > 0.05$). Mothers from all educational groups—low, middle, and high—reported comparable depressive symptoms

DISCUSSION

The aim of this study was to see the prevalence of depression in mothers of ASD children. The results indicate moderate depression in the mothers of ASD children.

Anju Jose et al. (2017) cited similar results that a high overall impact is found on mothers of children having autism spectrum disorders. Most of the mothers had mild to moderate levels of depression. More than one-third of the mothers had a poor quality of life. Levels of depression in mothers were associated with the child's symptom severity[14].

In another study by Al-Towairqi W Wed et al. Concerning other socio-demographic characteristics, number of siblings, family income, level of mother education, all showed no significant impact on maternal depression ($P = 0.72, 0.53, 0.71$)[15].

The second aim is to see the correlation of severity of ASD to the depression in mothers, the results with ($P>0.05$), indicates an insignificant relationship.

The results of the study are supported by Bader et al (2015), Falt et.al (2014), Dryer et.al (2013). There no significant relationship of severity of autism with the depression of the mothers of autistic child.

The three studies found no significant PS-EBP relationship whilst accounting for ASD severity [16,17,18]

The objective to find the correlation of income of family with depression in mothers of ASD children is insignificant with p-value of 0.620

On the other hand, our result was not consistent with a recent study conducted to investigate the relationship between maternal depression and stress compared with the severity of autism in children and the effect of family income on the relationship between these two variables, as it included that family income had a significant effect on the level of maternal depression[19].

The fourth objective is the correlation of depression in mothers of ASD children and social support, is significant with a p-value = 0.0492Concomitant findings were found in the present study, where there is a significant correlation of social support and depression of mothers of autistic children, as seen in studies by Warfield et al. (2014) and Gallagher et al. (2008).

Perceived social and family support was commonly included in analyses and often made a significant contribution to variance in the DV. However, in most cases, the relationship of interest also remained significant. Cases in which the relationship did not remain significant tended to have a smaller sample size. This suggests that social and family support may have an important relationship with parent MHP and PS; however, this relationship is independent of that with child EBP (20,21).

Though it is clear from our findings that mothers of autistic children have moderate depression and psychological, the results from the present study are limited in their generalizability due to the relatively small study sample, and has no control. However, it is vital to identify and offer appropriate psychiatric support for mothers who are depressed since this is a serious problem, and would appear to have the potential to disrupt the family, parenting and child.

Moreover, on the basis that very few study has discussed the social support component of the need for more research on the social support of the parents of children with autism should be explored.

Parents' views about their needs and how to adjust to life with a child with ASD should be taken into account when planning and developing services. The significant result of social support to depression may be attribute to the government policies.

The Government policies, like NIRAMAYA, are providing Health Insurance to Persons with Disabilities'. NIRAMAYA is about the Scheme Affordable Health Insurance to PwDs. Health insurance cover of up to Rs. 1.0 lakh. Facility for OPD treatment including the medicines, pathology, diagnostic etc.

The study enlightens the importance of such schemes as it projects or justifies the importance of implementation of such policies.

The importance of regime of dealing with depression is recommended to be included the treatment protocol. Future studies may be conducted on the correlation between the beneficiaries of Government schemes and depression in the mothers of Autistic children. Progression in this essential area of research should come from well-powered longitudinal studies using well-defined measures from a variety of information sources.

CONCLUSION

The present study aimed to evaluate the prevalence of depression in mothers of children with autism spectrum disorder (ASD) and to explore its relationship with demographic and psychosocial variables. The findings indicate that moderate depression is common among these mothers, highlighting the psychological strain associated with caregiving. The study revealed that the severity of ASD does not predict maternal depression, and that income and education levels also show no significant influence. However, social support emerged as a strong protective factor, demonstrating a significant inverse

relationship with depression, with mothers receiving better support showing lower depressive symptoms. These results underscore the need for accessible mental health services, counselling, and enhanced support systems for mothers of children with ASD. Government initiatives such as the NIRAMAYA health insurance scheme may have a positive impact and merit . Future research should include larger, more diverse samples to examine the role of government schemes, the impact of different types of social support, and the effectiveness of interventions to improve maternal mental health. Overall, the study emphasises that addressing maternal depression is vital for promoting healthier family functioning and better outcomes for children with ASD.

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ILLUSTRATIONS:

Variables	N	Minimum	Maximum	Mean	Standard Variation
Mothers Age	100	17	45	26.21	6.5709
Yearly Income	100	2	18	7.69	3.45153
Phq 9	100	4	24	13.95	4.99368
Mspss	100	17	84	54.20	15.21297

TABLE 01: The table shows the descriptive statistics of the variables

VARIABLES	R VALUE	P VALUE
PHQ 9 AND MSPSS	0.040	0.0492

TABLE 02: - This table shows the relationship between PHQ 9 and MSPSS.

CORRELATION	R VALUE	P-VALUE
PHQ 9 AND EDUCATION	-0.085	0.399
MSPSS AND EDUCATION	0.052	0.605

TABLE 03: This table shows that the corelation is not statistically significant as it cannot conclude a true relationship between PHQ 9 and education and MSPSS and education

CORRELATION	R VALUE	P-VALUE
PHQ 9 AND AGE	-0.038	0.704
MSPSS AND AGE	0.144	0.152

TABLE 04: - The table shows a weak relationship between the variables and suggest that there is no statistically significant among the variables

CORRELATION	R VALUE	P-VALUE
PHQ 9 AND INCOME	-0.050	0.620
MSPSS AND INCOME	0.187	0.063

TABLE 05: - Represents a very weak, negative linear relationship suggesting the correlation is not statistically significant.

CORRELATION	R -VALUE	P- VALUE
PHQ 9 AND SEVERITY	0.073	0.765
MSPSS AND SEVERITY	0.674	0.956

TABLE 06: -Represents a insignificant correlation between depression (PHQ 9) and Social Support and severity of ASD children