AOJ Public Health

Research Article

OpenAccess

Emotional Intelligence Mothers having Children Neurodevelopmental Disorders

Volume 1 Issue 1 – 2026

Priya Jose, Ananya Susan, Farheen Kooliyattayil, Nishanth Rajan
Department of Pediatrics, Pondicherry Institute of Medical Sciences, Puducherry

Correspondence: Nishanth Rajan, Paediatrics, Professor, Department of Paediatrics, Pondicherry Institute of Medical Sciences, Ganapathi chettikulam, Puducherry.

Received: December 23, 2025 **Published:** March 11, 2026

Citation: Nishanth Rajan. Emotional Intelligence Mothers having Children Neurodevelopmental Disorders. AOJ Pub Health. 2026;1(1):10–17.

Abstract

Purpose: To assess the emotional intelligence of mothers who have children with neurodevelopmental disorders.

Methods: The study took place in a hospital environment at the child guidance and rehabilitation centre over a duration of 2 months. Fifty mothers actively engaged in therapy for their children with NDDs were recruited using snowball sampling after informed consent. Information on demographics, caregiving factors, and social support were collected. Subsequently, Schutte's emotional intelligence scale was evaluated and analysed.

Results: Most mothers were married, from lower-middle socioeconomic backgrounds, and spent >6 hours/day caregiving, with high reported social isolation despite familial support. The mean EI score is lower than the reported population average and analysis showed that this mean falls about one standard deviation below typical norms, near the lower range of "competent" EI.

Conclusion: The findings suggest that mothers of children with NDDs have reduced emotional intelligence compared to the general adult population. Contributing factors are caregiving difficulties, social isolation despite some familial support, and financial strains. The research emphasizes on the importance of emotional intelligence as a potentially modifiable factor that can improve caregiver resilience and well-being. It also highlights the significance of tackling social stigma and financial assistance for families impacted by NDDs.

Keywords: Emotional Intelligence, Neurodevelopmental disorders, mental health

Statements and Declarations

Introduction

Neurodevelopmental disorders (NDDs) represent a wide group of psychiatric illnesses, caused by abnormal development of the central nervous system. Affected domains include motor function, cognitive abilities, language and affective states. Among most common NDDs, there are autism spectrum disorders, social communication disorders, syndromic and non-syndromic intellectual disabilities and attention deficit hyperactivity disorder.[1] It is a lifelong disorder and hence it not only impacts the children's quality of life but also their caregivers. According to a large population-based study conducted across five regions of India, nearly one in eight children aged 2–9 years has at least one NDD, with an overall prevalence ranging between 11–13%.[2]

Parental stress is experienced by most parents throughout the development of their children but is usually present at much higher levels for parents of children with NDDs. Abidin's Parenting Stress Index highlights three core contributors to parental stress: characteristics of the parent, characteristics of the child, and broader situational or demographic factors. The responsibilities of caring for a child with NDD can be overwhelming as it is not only limited to meeting medical and educational needs but also extends to a significant amount of emotional, social and financial challenges.[3] Mothers being the primary caregivers often face considerable psychological stress and anxiety. They have reported feelings of isolation, worry about the child's future, and in some cases have also experienced depressive and anxiety symptoms.[3] Philip found that most mothers received little to no information about NDDs from healthcare professionals, and a majority expressed the need for better awareness and support.[4] The addition of financial strain due to the costs associated with therapies and intervention leads to decline in the overall emotional status of the family. In a study conducted in Puducherry, out of a total of 120 mothers parenting a child with NDD, 52 mothers were screened positive for depression, 91 mothers were screened positive for anxiety and 36 mothers screened for both depression and anxiety.[5] Other studies[6,7] have reached similar conclusions as well. Manifestation of increased parental stress into mental health disorders leads to a reduction in quality of life and poses a mental health risk

Studies consistently suggest a strong association between stress and emotional intelligence.[8] Emotional intelligence is the ability to recognize, understand, express, and manage one's own emotions while also being familiar to other's emotions and regulating behavior in a social context.[9] Individuals with poor emotional intelligence face multiple difficulties in managing stress-related issues. Uncontrolled stress is often associated with physical and mental disorders that lead to psychological issues. Stressed individuals are unable to adopt the appropriate positive methods and techniques needed to minimize the negative effects of stress on physical and mental health.[8]

There is a strong dynamic relationship between parents' level of emotional control and that of their children. Parents who can recognize, talk about, and manage their own emotional responses create an environment where their children learn to do the same—developing essential skills sometimes called 'mentalizing.' Therefore, mothers need to have a decent EI as it directly correlates to the well-being of the child and proves the bidirectional model of effects between the emotional behavior of parents and children.[10]

In our hospital, we provide dedicated counselling sessions by a qualified psychologist and 'parent support groups' which have emerged as an effective intervention in the management of children with NDDs. It enhances their emotional coping skills, reduces psychological distress, and improves their capacity to support their children's developmental needs effectively. These kind of interventions are considered to not only improve children's adaptive behaviors, communication, and social skills but also significantly benefit parental mental health as well in recent systematic reviews.[11] Parent support groups are a cost-effective approach in resource limited settings and rural areas. These interventions include but are not limited to psychoeducation and emotional regulation strategies which improve their understanding of their child's condition and make them better parents. Emotional skills are integral to how these mothers overcome challenges, and underscores the value of enhancing our understanding of emotional intelligence in this context to better support caregivers.[12]

Expanding this research could explain the relative importance of emotional intelligence compared to other protective factors already identified for the parents of autistic children. The research conducted by Manicacci.[12] identified various factors that impacted emotional intelligence in mothers of children with autism. Education emerged as a significant factor; mothers with higher educational qualifications seem to have better emotional regulation and problem-solving skills, which in turn contributed to higher EI. The child's age was positively linked to increased stress, which could influence maternal emotions and EI levels. The study also reiterated the omission of mothers with pre-existing psychiatric diagnoses, recognizing that psychiatric illness could confound the relationship between EI and coping/resilience. By excluding such participants, the study focused on how EI can affect resilience in this demographic.[12]

Accurate assessment of emotional intelligence is

essential to explore its influence on parenting be haviorsand stress management. Schutte Self-Report Emotional Intelligence Test (SSEIT) is widely used for evaluating emotional intelligence and has strong psychometric properties. Its advantage lies in its simplicity, reliability, and adaptability to different populations. By applying this tool in the current context, the research seeks to generate objective data that can be correlated with maternal challenges. It is suitable for research on caregivers as it captures self-perceived emotional abilities relevant to coping and well-being.[13] This scale has demonstrated strong psychometric properties across different cultural contexts, including adaptations for non-English-speaking populations, which supports its potential validity in Tamil as well.[14]

Previous studies on emotional intelligence among mothers of children with neurodevelopmental disorders (NDDs) reveal several limitations that this cross-sectional study aims to address such as being focused only on specific disorders like autism spectrum disorder (ASD).[12,15] and excluding children with diverse NDDs such as ADHD or intellectual disabilities. It also focuses on mothers of children with NDDs as the study population because mothers are often the primary caregivers, directly involved in therapy sessions, medical follow-ups, and day-to-day management of the child. The broader inclusion criteria target all mothers receiving therapy at the center, enhancing generalizability. The demographic and general history questionnaires help in attaining a comprehensive assessment of factors such as social support, education, and coping strategies. Therefore, this study aims to fill the above-mentioned gaps by examining emotional intelligence across a broad spectrum of neurodevelopmental disorders in a hospital-based setting.

Materials and Methods

Aim

The aim was to assess the emotional intelligence among mothers who have children with neurodevelopmental disorders.

Objectives

- To estimate the emotional quotient (EQ) of mothers of children with neurodevelopmental disorders using Schutte's Emotional Intelligence Scale.
- To determine the association between emotional intelligence levels and selected socio-demographic factors (such as mother's age, education, occupation, family income, and residence).
- To determine the relationship between emotional intelligence and caregiving-related factors (time spent with the child, family support and presence of comorbidities in the child).
- To identify potential areas where interventions can be done.

Materials and Methods

Procedure: Across sectional study was initiated after receiving approval from institutional research committee and institutional ethics committee (**RC/2023/123)**. All eligible participants were explained about the study along with the provision of a patient information sheet and consent form. Patient anonymity was maintained. This study was conducted for over 2 months in the child guidance and rehabilitation center of the hospital. Mothers of children with NDDs who were receiving therapy were recruited after receiving signature in written informed consent and out of these mothers, those that were diagnosed with a prior psychiatric illness were excluded. 50 children were included in the study using snowball sampling. The demographic and general history were collected. Questions related to other conditions causing decreased emotional level also were asked. Then, Schutte's emotional intelligence test.[16] was administered. The responses were graded and analyzed.

Statistical Analysis

Data was entered in Microsoft Excel and analyzed using SPSS version 23. Descriptive statistics was used to summarize demographic data (means and standard deviations for continuous variables; frequencies and percentages for categorical variables). The independent t-test (for normally distributed data) or
Mann-Whitney U test (for non-normally distributed data) was used to compare mean VMI scores between groups. Chi-square test was used to compare categorical variables. A p-value of <0.05 was considered statistically significant.

Ethical Considerations

Ethical clearance was obtained from the institutional ethics committee. After institutional ethics committee approval-the demographic and general history were collected from the respective mothers. Then, Schutte's emotional intelligence test.[16] was administered. The responses were graded and analyzedwith one-way ANOVA and independent samples t-tests to determine association between emotional intelligence and variables.

Results

The results were analyzed using statistics expressed as frequencies, percentages, means, and standard deviations.The association between emotional intelligence (EI) and selected socio-demographic and caregiving variables was assessed using one-way ANOVA and independent samples t-tests. The results are as follows:

Table 1: Demographic profile of mothers

Variable	Category	Frequency	Percentage (%)
Age group (years)	20-29 years	11	22
	29-39 years	31	62
	40-49 years	7	14
	49-59 years	1	2
Marital status	Married	48	96
	Divorced	2	4
Socioeconomic class	Upper	17	34
	Lower middle	22	44
	Upper lower	10	20
	Lower	1	2
Place of residence	Urban	30	60
	Rural	20	40

- The majority of mothers (62%) were in the age group of 30-39 years and most of them (96%) were married
- The socioeconomic statistics showed that 44% belonged to the lower-middle socioeconomic class whereas 60% were from urban areas.

Ages of children –

- Children were predominantly aged between 4–6 years (42%).

Time spent with the child-

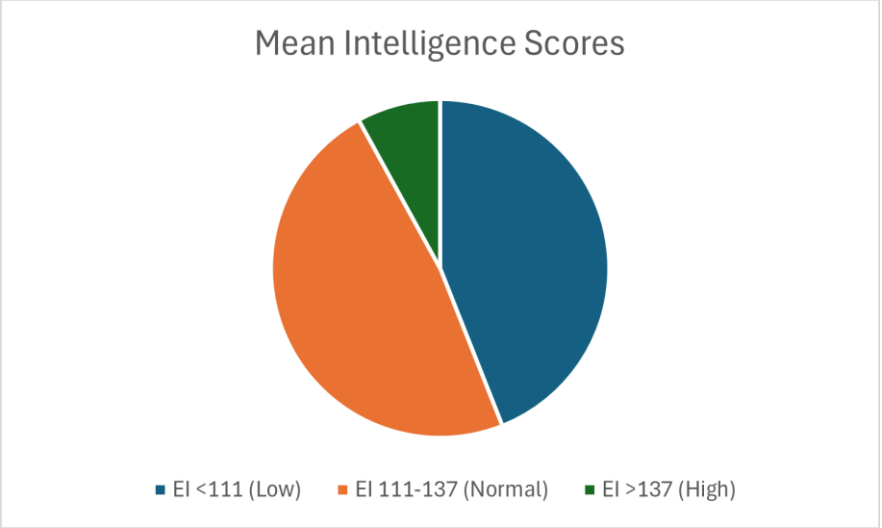
- Mothers were found to be spending more time with the children as compared to the fathers. **44%** of mothers spend more than 6 hours per day with their child, whereas **42% of fathers** pend**less than 1 hour per day**.

Table 2: Socio-Environmental factors after diagnosis

Variable	Category	Frequency	Percentage (%)
Attitude of husband	Supportive	40	80
	Unchanged / unsupportive	10	20
Attitude of grandparents	Positive	43	86
	Negative / unchanged	7	14
Mother blamed for child's condition	Yes	14	28
	No	36	72
Social isolation felt	Yes	39	78
	No	11	22
Parents hesitant to take child outside	Yes	39	78
	No	11	22

- 80% of husbands and 86% of grandparents showed supportive attitudes despite the diagnosis of the child.
- 78% of mothers reported social isolation and were hesitant to take their children outside for their child's condition.

Figure 1: Mean intelligence scores of the mothers



- The mean emotional intelligence score was **111.44 ± 19.72**, indicating moderate EI among participants
- 44% of mothers had low mean intelligence scores, 48% were within normal limits and 8% of mothers had high emotional intelligence scores.
- There was no statistically significant association between EI and age group (p = 0.275), socioeconomic status (p = 0.337), marital status (p = 0.889), place of residence (p = 0.121), father's time spent with the child (p = 0.145), husband's attitude after diagnosis (p = 0.458), or grandparents' attitude after diagnosis (p = 0.998).
- A statistically significant difference in EI was observed based on the time mothers spent with their child (p = 0.001). Mothers who spent more than 6 hours per day with their child demonstrated the highest mean EI scores, followed by those spending 3–6 hours, while the lowest EI scores were seen among mothers spending 1–2 hours per day.

Discussion

The mean total Schutte Emotional Intelligence (EI) score was 111.44 (Standard deviation - SD 19.72). When compared to the published data for the Schutte Self-Report Emotional Intelligence Test (SSEIT), the average across various different sample sizes is reported to be around 124 (SD 13).[17]

According to our study results the present mean falls one standard deviation below published data which refers to general adult population and lies near the lower limit of the "competent" range reported for the scale.[18] The higher standard deviation observed in our study indicates greater variability in EI scores among the participants. This could be due to the varied emotional experiences faced by mothers caring for children with NDD's.

EI ranging between moderate to below average in these mothers is consistent with studies showing that caregivers of children with developmental disabilities often report higher emotional strain and lower self-efficacy when compared with parents of typically developing children.[6] 44% of mothers reported spending >6 hours/day with the child while fathers in comparison have spent a significantly lesser time with the children. There was a significant association between EI and the amount of time spent with the child. Mothers who spent more than 6 hours a day had significantly higher EI scores compared to the other mothers who spent less time. This may be due to the greater emotional attachment and better coping strategies that arise from longer caregiving time. Alternatively, higher EQ may be more emotionally resilient, willing to spend longer hours with their child as well. But it is evident that sustained and intensive caregiving increases emotional burden on mothers which leaves them with very few opportunities for social and restorative activities for themselves that have proven to support emotional regulation.[19] In contrast, the time spent with the father did not show a significant association with maternal EI. This may be because mothers remain the primary parent in this sample size.

Even though most husbands (80%) and grandparents (86%) were found to be supportive, 78% of the mothers reported social isolation and 28% reported being blamed for their child's condition. This emotional paradox of having support from the family butstill facing isolation and blame can create complex emotional demands that strain empathy and emotion-management skills. Qualitative and mixed-methods studies from India and similar settings document stigma and social withdrawal as common experiences among caregivers of children with NDDs, which invariably affects psychological well-being of the mothers.[20] There is also a higher prevalence of depression and anxiety which is seen in research from India as well as international literature.[5,6] These mental-health burdens are invariably linked to their emotional-intelligence.[15]

Most mothers belonged to the lower-middle socioeconomic class and financial strain (therapy and caregiving costs) is commonly associated with higher parental stress and poorer mental health. This also plays a role in the developmental aspects of emotional intelligence. Several caregiver-needs and Indian clinic-based studies highlight financial burden as a major determinant of parental distress.[21] EI was not significantly associated with age, socioeconomic class, marital status, or place of residence. The absence of a link with age and socioeconomic status may be because of the relatively uniform hospital-based context. in which all mothers were actively involved in therapy and support services. The lack of a significant rural–urban difference may be related to the modest sample size and the similar availability of counseling and support resources for both groups.

All these factors suggest that being the primary caregiver of a child with NDD can be overwhelming and cause immense emotional burden on the mothers, which in turn can result in a reduced emotional intelligence. Providing consistent counseling and encouraging participation in support groups can make a meaningful difference for mothers. These resources offer a safe space to share their experiences and build emotional strength. It will also help in reducing feelings of isolation and stress which can lead to better emotional intelligence scores and overall well-being.

Conclusion

- The mean EI score reflected a moderate level of emotional intelligence within this group of mothers which was lower when compared to general adult population.
- There was no statistically significant association between emotional intelligence and mother's age, education, occupation, family income, marital status, or place of residence. This indicates that emotional intelligence in this group may be more strongly influenced by caregiving-related experiences such as the amount of time spent by the mother with the child.
- Boosting emotional intelligence through structured counselling, peer-support groups, and stress-management could better the mother's well-being as well as improve the child's outcomes.
- Early screening for parental distress, along with the appropriate interventions, can minimize the long-term emotional impact on mothers and families.

Acknowledgement

None.

Disclaimer

None.

Funding

The author(s)received no funding for this project.

References

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington, VA. *American Psychiatric Association*. 2013.
2. Arora NK, Nair MKC, Gulati S, et al. Neurodevelopmental disorders in children aged 2–9 years: Population-based burden estimates across five regions in India. *PLOS Med*. 2018;15(7):e1002615.
3. Craig F, Operto FF, De Giacomo A, et al. Parenting stress among parents of children with Neurodevelopmental Disorders. *Psychiatry Res*. 2016;(242):121–9.
4. Philip M, Ramu R, Prasannan RV, et al. Kathyayani BV. Mothers' knowledge of childhood neurodevelopmental disorders: Indian perspective. *J Neurosci Rural Pract*. 2021;12(1):165-170.
5. Fatima N, Chinnakali P, Rajaa S, et al. Prevalence of depression and anxiety among mothers of children with neuro-developmental disorders at a tertiary care centre, Puducherry. *Clin Epidemiol Glob Health*. 2021;(11):100792.
6. Alsaad AJ, Al Khamees MM, et al. Factors associated with the prevalence of depression and anxiety among parents of children with neurodevelopmental disorders in Saudi Arabia. *BMC Public Health*. 2023;23(1):2320.
7. Firat S, Diler RS, Avci A, et al. Comparison of psychopathology in the mothers of autistic and mentally retarded children. *J Korean Med Sci*. 2002;(5):679–85.
8. Fteiha M, Awwad N. Emotional intelligence and its relationship with stress coping style. *Health Psychol Open*. 2020;7(2):2055102920970416.
9. Priyam P, Nath S. A cross-sectional study on the effect of adverse childhood events and perception toward parents on emotional intelligence. *Prim Care Companion CNS Disord*. 2021;23(5):20m02861.
10. Sánchez-Núñez MT, García-Rubio N, Fernández-Berrocal P, Latorre JM. Emotional Intelligence and Mental Health in the Family: The Influence of Emotional Intelligence Perceived by Parents and Children. *Int J Environ Res Public Health*. 2020(17):6255.
11. Koly KN, Martin-Herz SP, Islam MdS, et al.Parent mediated intervention programmes for children and adolescents with neurodevelopmental disorders in South Asia: A systematic review. *PLoS ONE*. 2021;16(3):e0247432.
12. Manicacci M, Bouteyre E, Despax J, Bréjard V. Involvement of Emotional Intelligence in Resilience and Coping in Mothers of Autistic Children. *J Autism Dev Disord.* 2019(11):4646–57.
13. Bru-Luna LM, Martí-Vilar M, Merino-Soto C, Cervera-Santiago JL. Emotional Intelligence Measures: A Systematic Review. *Healthcare*. 2021(12):1696.
14. Ahmad NA, Praveena SM, Tee KS. Psychometric Properties of the English and Malay Version of the Adapted Schutte Emotional Intelligence Scale. *Front Psychol.* 2022;13:895816
15. Bhalerao DAD. Emotional intelligence among the mothers of children with intellectual disability, mothers of autistic children and normal children. *Int J Creat Res Thoughts*. 2022(5):e481-e487.
16. Schutte NS, Malouff JM, Simunek M, McKenley J, Hollander S. Characteristic emotional intelligence and emotional well-being. *CognEmot*. 2002;(6):769–85.
17. Marisavljević M. Trait emotional intelligence in mothers of children with autism spectrum disorders. *PrimenjenaPsihologija.* 2023;16(3):325-348.
18. Schutte, NS, Malouff, JM, Hall LE, et al. Development and validation of a measure of emotional intelligence. *Personal Individ Differ.* 25(2):167–77.
19. Masefield S, Fairthorne J, Linney C, et al. The caregiver health effects of caring for young children with developmental disabilities: a meta-analysis. *Maternal and Child Health Journal* . 2020:561-574.
20. Lockwood Estrin G, Bhavnani S, Arora R, et al.Caregiver Perceptions of Autism and Neurodevelopmental Disabilities in New Delhi, India. *Int J Environ Res Public Health*. 2023;20(7):5291.
21. Mahapatra A, Choudhary V, Sagar R. Assessment of caregiver needs in parents of children suffering from neurodevelopmental disorders in an Indian population. *Asian J Psychiatry*. 2020;49:101807.