Assess the Level of Stress among Parents of Children with Autism at Selected Autism Schools of Vadodara with a View to Give Need Based Education

Bhavisha Patel1*, V. Suresh1, Bhoomika Patel1, Mihir Patel2, Monali Patel2, Nidhi Patel2 and Om Patel2

1Department of Mental Health Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth Deemed to be University, Vadodara, Gujarat, India.
2Sumandeep Nursing College, Sumandeep Vidyapeeth Deemed to be University, Vadodara, Gujarat, India.

Authors’ contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: Children with a Autism spectrum disorders have impairment in the area of communication and social interaction and often display repetitive and non often display. Their parents having stress a to manage their children to education and future purpose. This study has assessed the stress level in parents and manage their stress with coping mechanism.

Aims and Objective: 1) To assess the level of stress among parents of children with autism. 2) To find association between level of stress and selected demographic variables.

Methods: The data for main study collection was 30 Parents. Description of the tools refers to the explanation of the content of the tool. The researcher lists the number of items and the scoring for each item in the tool. The tool used for the present study is Parenting stress index - Scale. Descriptive and inferential statistics were applied to analyses the data by using SPSS-20 software. We use purposive sampling technique.
**Results:** The majority of the parents having a moderate stress (83.3%), and severe stress (10%) and mild stress (6.66%) and nonstress level (0.0%). The stress level analysis showed that stress in parents ($R=0.321, p=0.00$) at significance of 0.05 level present.

**Conclusion:** The present study concluded that there is a stress level of parents among children having a moderate stress and there is no any association between the level of stress and selected demographic variable.

**Keywords:** Autism; parents; children; stress.

### 1. INTRODUCTION

Autism is a neurodevelopmental disorder characterized by early onset (before 3 years old) of significant impairment in social interaction and communication and unusual, stereotyped behaviors. Autism Spectrum Disorder (ASD) is manifested during early childhood primarily between 18 to 36 months of age [1]. Autism is not a single disorder, but a spectrum of closely-related disorders with a shared core of symptoms. Every individual on the autism spectrum has problems to some degree with social skills, empathy, communication, and flexible behavior. But autism is often used in a more general sense to refer to all autism spectrum disorders [2].

Basic social interaction can be difficult for children with autism spectrum disorders. Symptoms may include: Unusual or inappropriate body language, gestures, and facial expressions. Lack of interest in other people or in sharing interests or achievements (e.g., showing you a drawing, pointing to a bird). Unlikely to approach others or to pursue social interaction; comes across as aloof and detached; prefers to be alone. Difficulty understanding other people’s feelings, reactions, and non-verbal cues. Resistance to being touched. Difficulty or failure to make friends with children of the same age [3].

Autism disorders range from mild symptoms, where the child seems “normal” but socially awkward, to severe symptoms, in which the child is non-verbal, and dependent on everyday care. Symptoms may include: Delay in learning how to speak (after the age of or doesn’t talk at all, speaking in an abnormal tone of voice, or with an odd rhythm or pitch, Repeating words or phrases over and over without communicative intent, Trouble starting a conversation or keeping it going, Difficulty communicating needs or desires, doesn’t understand simple statements or questions, taking what is said too literally, missing humors, irony, and sarcasm [4].

A diagnosis of ASD now includes several conditions that used to be diagnosed separately: autistic disorder, pervasive developmental disorder not otherwise specified (PDD-NOS), and Asperger syndrome. These conditions are now all called autism spectrum disorder [5].

Parents of children with developmental disabilities face challenges placing them at risk for high levels of stress and other negative psychological outcomes [6]. Among parents of children with autism and the brunt of caring for the child with autism has been shown to fall predominantly upon the mother, who may as a result, experience low parenting competence, less marital satisfaction, family adaptability and significant levels of chronic stress and fatigue [7,8].

Statistics show that boys are affected more than girls and the ratio is four males to one female though the reason for this is still unknown. Experts estimate that two to six children out of every 1,000 will have autism. Males are four times more likely to have autism than females. Therefore, it can be summarized that between 1 in 500 (2/1,000) to 1 in 166 children (6/1,000) have autism.

#### 1.1 Aim

The aim of the study is to assess the level of stress among parents of children with autism.

#### 1.2 Objective

1. To assess the level of stress among parents of children with autism.
2. To find association between level of stress and selected demographic variables

### 2. MATERIALS AND METHODS

Quantitative research approach with descriptive research design was used to conduct the study. The School as study setting were selected on the
basis of availability of number of parents, giving permission to conduct the study and convenience in term of distance. Purposive sampling technique was adopted to select 30 parents from Kalrav special school, Vadodara. Parental stress index scale used to assess the level of stress. Ethical approval for conducting the study was taken from Sumandeep Vidyapeeth Institutional ethics committee (SVIEC), Vadodara. Administrative approval and permission were taken from concern authorities of selected school, Vadodara. The consent form was prepared for the study participant regarding their willingness to participate in the research study. The research tool for data collection it consists two sections:

2.1 Section 1: Demographic Data

The section included socio demographic variable such as parents age group, education level, occupation family income, family type, family history of autism, total number of children

2.2 Section 2: Parenting Stress Index Scale

Paring stress index scale used to assess the stress level in parents of autism children. The tool is total 38 questions that would help to evaluate the stress level parents of autism children. Total 38 marks questions scale in strongly agree, agree, not sure, disagree, strongly disagree. Each questions have 5 marks. A score is consider as if it is a 0-50 is indicate no stress, if it is between 51-100 is indicate mild stress, if it is between 101-150 is indicate moderate stress, if it is between 151-200 is indicate severe. Parents of autism children were selected. Statistical analysis was performed using the statistical package for the Social Science (SPSS version 20.0) Frequency, percentage, means, median and standard deviation were used to explain socio - demographic variables. At the level of 0.05 was considered as significant.

3. RESULTS AND DISCUSSION

Above Table 1 indicate the majority participants were Father 56.7% and majority participants were 30-34 Year of age 70% and 35-38 Year 26.7% and 39-43 Year 3.3%, in the education level majority participants were Post graduate 83.3% and Graduate 10% and Diploma 6.7%, the occupation status where majority participants were Private occupation 46.7% and Business 43.3% and Government 10%. In their monthly family income, the majority were <20000 Rs And 21000 -50000 Rs And >51000 Rs Family income. Moreover, majority participants were belongs to Nuclear Family 80% and Joint Family 20% on other hand majority participants were No family history autism 96.7% and 3.3% have history of autism. Out of 30 parents, (60%) parents have 2 children, (30%) have 3, (6.7%) have 1 and (3.3%) have 4 children.

3.1 Section-2

To find the association between level of stress parents of autism children with their selected socio demographic variables. Above the Table 2 show that demographic variable parents, Age group, Education level, Occupation, Family income, Family Type, Family history of Autism, Total no of children. The result shows that there is no any significant association between stress level and demographic variable. As the Chi-square value is less than table value.

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3.2 Section- 3

Above Pie chart indicate the majority of the parents having a moderate stress (83.3%), and sever stress (10%) and mild stress (6.66%) and nonstress level (0.0%). the stress level analysis showed that stress in parents (R=0.321, p=0.00) at significance of 0.05 level present.

3.3 Discussion

According to stress assessment 83.33% have a moderate stress and 10% having a severe stress and 6.7 % having a mild stress. Self-Structure questionnaires were used to assessed the stress of parents of autism children and it is discussed that majority of the parents having a moderate stress.

Given a Need Based Education 1. Stress Management Skills and 2. Coping strategies and hope.
Table 1. Frequency and percentage distribution of sample according to their demographic Variables

| Sr No. | Demographic data        | Categories      | Frequency | Percentage |
|--------|-------------------------|-----------------|-----------|------------|
| 1      | Parents                 |                 |           |            |
|        | Mother                  | 13              | 43.3%     |            |
|        | Father                  | 17              | 56.7%     |            |
| 2      | Age Groups              |                 |           |            |
|        | 30-34 Year              | 21              | 70.0%     |            |
|        | 35-38 Year              | 8               | 26.7%     |            |
|        | 39-43 Year              | 1               | 3.3%      |            |
| 3      | Educational Level       |                 |           |            |
|        | Graduate                | 3               | 10.0%     |            |
|        | Post Graduate           | 25              | 83.3%     |            |
|        | Diploma                 | 2               | 6.7%      |            |
| 4      | Occupation              |                 |           |            |
|        | Government              | 3               | 10.0%     |            |
|        | Private                 | 14              | 46.7%     |            |
|        | Business                | 13              | 43.3%     |            |
| 5      | Family Income           |                 |           |            |
|        | <20000 Rs               | 17              | 56.7%     |            |
|        | 21000-50000 Rs          | 12              | 40.0%     |            |
|        | >51000 Rs               | 1               | 3.3%      |            |
| 6      | Family type             |                 |           |            |
|        | Joint                   | 6               | 20.0%     |            |
|        | Nuclear                 | 24              | 80.0%     |            |
| 7      | Family history of autism|                 |           |            |
|        | Yes                     | 1               | 3.3%      |            |
|        | No                      | 29              | 96.7%     |            |
| 8      | Total no of children    |                 |           |            |
|        | 1                       | 2               | 6.7%      |            |
|        | 2                       | 18              | 60.0%     |            |
|        | 3                       | 9               | 30.0%     |            |
|        | 4                       | 1               | 3.3%      |            |

Stress level score

![Pie chart showing stress level distribution](image)

Fig. 1. Percentage distribution of respondents by stress level
Table 2. Data on Association between the Parents stress level with selected demographic variable

| Demographic Variable | Level of Stress | Total | Chi-square | Df | Level of significance at 0.05 level |
|----------------------|-----------------|-------|------------|----|-------------------------------------|
| **Parents**          |                 |       |            |    |                                     |
| Mother               | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 1     |            |    |                                     |
|                      | Severe Stress   | 2     |            |    |                                     |
|                      | Total           | 13    |            |    |                                     |
| Father               | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 15    |            |    |                                     |
|                      | Severe Stress   | 1     |            |    |                                     |
|                      | Total           | 17    |            |    |                                     |
| **Age Group**        |                 |       |            |    |                                     |
| 30-34 Year           | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 2     |            |    |                                     |
|                      | Moderate Stress | 16    |            |    |                                     |
|                      | Severe Stress   | 3     |            |    |                                     |
|                      | Total           | 21    |            |    |                                     |
| 35-38 Year           | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 0     |            |    |                                     |
|                      | Moderate Stress | 8     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 8     |            |    |                                     |
| 39-43 Year           | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 0     |            |    |                                     |
|                      | Moderate Stress | 1     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 1     |            |    |                                     |
| **Education Level**  |                 |       |            |    |                                     |
| Graduate             | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 2     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 3     |            |    |                                     |
| Post Graduate        | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 21    |            |    |                                     |
|                      | Severe Stress   | 3     |            |    |                                     |
|                      | Total           | 25    |            |    |                                     |
| Diploma              | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 0     |            |    |                                     |
|                      | Moderate Stress | 2     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 2     |            |    |                                     |
| **Occupation**       |                 |       |            |    |                                     |
| Government           | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 2     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 3     |            |    |                                     |
| Private              | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 0     |            |    |                                     |
|                      | Moderate Stress | 12    |            |    |                                     |
|                      | Severe Stress   | 2     |            |    |                                     |
|                      | Total           | 14    |            |    |                                     |
| Business             | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 11    |            |    |                                     |
|                      | Severe Stress   | 1     |            |    |                                     |
|                      | Total           | 13    |            |    |                                     |
| **Family Income**    |                 |       |            |    |                                     |
| <20000 Rs            | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 0     |            |    |                                     |
|                      | Moderate Stress | 16    |            |    |                                     |
|                      | Severe Stress   | 2     |            |    |                                     |
|                      | Total           | 17    |            |    |                                     |
| 21000-50000 Rs       | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 2     |            |    |                                     |
|                      | Moderate Stress | 8     |            |    |                                     |
|                      | Severe Stress   | 2     |            |    |                                     |
|                      | Total           | 12    |            |    |                                     |
| >51000 Rs            | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 0     |            |    |                                     |
|                      | Moderate Stress | 1     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 1     |            |    |                                     |
| **Family Type**      |                 |       |            |    |                                     |
| Joint                | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 5     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 6     |            |    |                                     |
| Nuclear              | No Stress       | 0     |            |    |                                     |
|                      | Mild Stress     | 1     |            |    |                                     |
|                      | Moderate Stress | 20    |            |    |                                     |
|                      | Severe Stress   | 3     |            |    |                                     |
|                      | Total           | 24    |            |    |                                     |
| **Family history of autism** | No Stress | 0 | 0 | 2 | 28 | .207 | 2 | NS |
| Yes                  | No              | 0     |            |    |                                     |
|                      | Mild Stress     | 0     |            |    |                                     |
|                      | Moderate Stress | 2     |            |    |                                     |
|                      | Severe Stress   | 0     |            |    |                                     |
|                      | Total           | 2     |            |    |                                     |
| **Total No of Children** | 1               | 0     | 0 | 1 | 0 | 1 | |
|                       | 2               | 0     | 1 | 17 | 1 | 18 | 15.900 | 6 | 12.59 | NS |
|                       | 3               | 0     | 1 | 5 | 3 | 9 | |
|                       | 4               | 0     | 0 | 1 | 0 | 1 | |
Table 3. Stress level score

| Stress Level Score      | Frequency | Percentage |
|-------------------------|-----------|------------|
| No Stress (0-50)        | 0         | 0%         |
| Mild Stress (51-100)    | 2         | 6.66%      |
| Moderate Stress (101-150)| 25       | 83.33%     |
| Severe Stress (151-200) | 3         | 10%        |

4. CONCLUSION

The present study assessed the stress level of parents among the autism children at Kalrav special school, Vadodara and found that majority of the parents were having moderate stress. After the stress assessment of parents of autism children, the study concluded that parents having a moderate stress.

CONSENT

As per international standard or university standard, parents written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

The study was approved from ethical committee of Sumandeep Vidyapeeth institutional ethical committee and ethical approval number is SVIEC/ON/NURS/BNPG19/D20055.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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