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Stress and Resilience among Parents of Children with Specific Learning Disorder

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Abstract: ***Background*** *: Specific learning disorder (SLD) is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities.[1] The educational skills are significantly lower than expected according to age, which considerably affects success and daily activities related to school or professional life.[2] It begins during early childhood and continues across the lifespan with variable clinical expressions.* ***Material and Methods****: The design of the study was a cross sectional observational study. 113parents accompanying children with SLD to department of psychiatry ABVIMS and Dr RML hospital were recruited, Depression, Anxiety and Stress Scale - 21 Items (DASS-21) to assess severity of depression, anxiety and stress and Connor-Davidson Resilience Scale 25 (CD-RISC-25) to assess the Resilience score were applied.* ***Results****: Significant negative correlation was seen between stress score with resilience score.* ***Conclusion****: Study finding suggest that parents were going through different levels of psychological stress with mothers at higher risk than fathers, and resilience score is negatively correlated with stress.*

Keywords: Specific Learning Disorder, parental stress, resilience score

1. Introduction

Specific learning disorder (SLD) is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities.[1] The educational skills are significantly lower than expected according to age, which considerably affects success and daily activities related to school or professional life.[2]The global prevalence of SLD has been estimated to be around 5 to 15%,[2] while in India, it affects approximately 0.38 to 15.2% children[3].

It tends to run in families4, beginning during early childhood and continuing across the lifespan with variable clinical expressions. It has high comorbidity rates with other common psychiatric disorders, ranging from ADHD (most common), anxiety, and mood disorders, suicide, to substance abuse (least common)5. Classified into three categories: 1) Dyslexia, 2) Dysgraphia 3) Dyscalculia and 4) Mixed type

The 10th edition of the International Classification of Diseases says (ICD-10), describes them as Specific Developmental Disorders of Scholastic Skills (SDDSS)6; while Diagnostic and Statistical Manual of Mental Disorder 5 (DSM-5) describes it as Specific Learning Disorder with marked and persistent difficulties in learning and using one's cultural symbol systems (e.g., alphabetic letters, characters, Arabic numerals) that are required for skilled reading, writing, and arithmetic.

Parents of these children are at an increased risk of experiencing psychological stress compared to other parents negatively affecting their behaviour and functioning7-8. Parent-related stress includes components of personality and pathology, such as the parent's subjective feelings of emotional availability to the child, parenting confidence, and investment in parenting. Some tend to report greater than average levels of stress during their child's infancy9 and early childhood and adolescence. Parents high in stress are less responsive, more authoritarian, and more neglectful in their parenting behaviour, repeated physical and emotional crises, interactive family issues, ruined schedules, and additional expenses, which can create financial burden and emotional distress for them10.

Resilience is the capacity to maintain competent functioning in the face of major life stressors, that is the ability to navigate successfully through life challenges, thereby "overcoming" adversity11. Resilience includes the skills and abilities that along with knowledge and experience contribute to a person's ability to meet challenges, cope with those challenges, and overcome them12

2. Material and Methods

After obtaining approval from the Institutional Ethical Committee and prior written informed consent from all participants bilingually (English and Hindi), the study was conducted in the Department of Psychiatry at A.B.V.I.M.S. & Dr. Ram Manohar Lohia Hospital.

- **Study Venue**-Department of Psychiatry at A.B.V.I.M.S. & Dr. Ram Manohar Lohia Hospital, New Delhi.
- **Study Design**-Cross sectional observational Study.
- **Study Duration**- 1st January2021 to 31stMay2022**.**
- **Sample Size**- The study included a minimum of 113 participants.

At 95% confidence level and taking the percentage of parents of children with specific learning disorder with parenting stress level as 91.9% (Janha P et al) and with an absolute error of 5%, the sample size estimated was 113 using the formula

$$n = Z\alpha^2\, pq\, /d^2,$$

Where n=sample size
Zα = 1.96 value of the standard normal variate corresponding to level of significance alpha 5%
p = percentage of parents of children with specific learning disorder with parenting stress level q = 1 – p
d=absolute error

Inclusion Criteria for participants:

- Parents of children diagnosed with Specific Learning Disorder as per DSM-5
- Competent and willing to provide written informed consent

Exclusion criteria for participants

- Comorbid psychiatric illness along with SLD
- History of psychiatric disorder, acute medical condition that might interfere in evaluation
- Not willing to give informed consent.

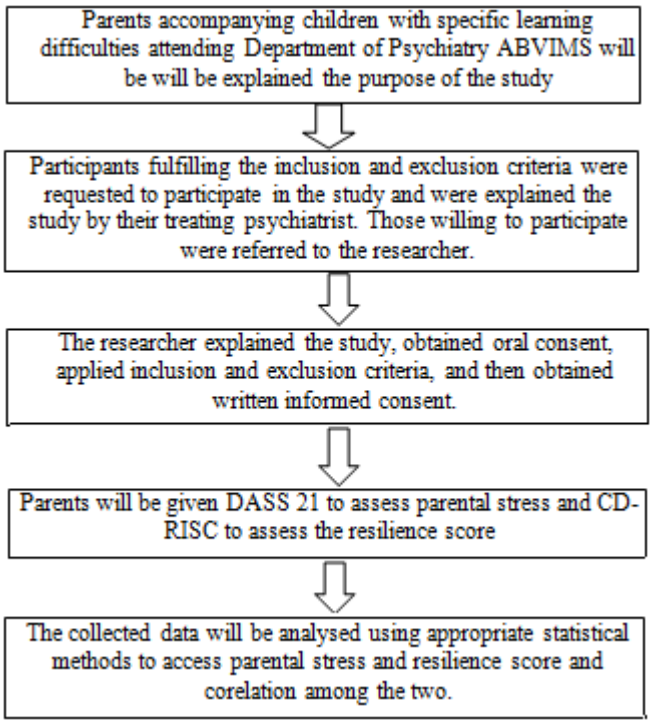
Statistical Analysis

The collected data will be entered in Microsoft Excel and the final analysis will be done using Statistical Package for Social Sciences (SPSS) software, IBM manufacturer, Chicago, USA, ver 25.0.

The presentation of the Categorical variables will be done in the form of number and percentage. Quantitative data will be expressed as the means, standard deviation or median with interquartile range. Association of quantitative variables will be analysed using independent t test. Association of qualitative variables will be analysed using chi square test or Fisher's exact test. Pearson correlation coefficient will be used for correlation of stress score with resilience score. P' value less than 0.05 would be considered statistically significant

Diagram depicting allocation process and series of events

Flow Chart of Study Design



3. Result and Observations

Demographic and clinical characteristics of participants

Population examined 51.3% fathers (n=58), 48.7% mothers (n=55). Most of the individuals in the study had completed matriculation or above, and only 6 of the entire sample population of 113 had only completed higher secondary education. The majority of the participants, approximately two- thirds in both cases, were more than 40 years age, with the mean age of participants being 46.14±4.65 years**;** 16.8% were age group of 31 to 40 years (n=19), 66.37% from 41-50 years (n=75), 16.81% from 51-60 years (n=19).

Table: Distribution of stress score among mother and father (n=113)

Respondent	Normal (0-14)	Mild (15-18)	Moderate (19-25)	Severe (26-33)	Extreme Severe (34+)
Father n=58 (%)	36 (62)	19 (33)	2 (3)	1 (2)	0 (0)
Mother n=55 (%)	6 (11)	21 (38)	24 (44)	3 (5)	1 (2)
Total n=113 (%)	42 (37)	40 (35)	26 (23)	4 (4)	1 (1)

33% (n=19) of the fathers have mild stress while 38%(n=21) had mild stress. 3% of fathers had moderate stress while 44% (n=24) mothers reported moderate stress score. 2% of fathers had severe stress and 5%(n=3) reported severe stress

Table: Association of resilience score with mother and father

Resilience score	Mother (n=55)	Father (n=58)	Total	P value
Mean ± SD	71.65 ± 12.7	82.86 ± 12.48	77.41 ± 13.74	<.0001‡
Median (25th-75th percentile)	76 (63-77)	84 (72.75-92.75)	76 (70-87)	
Range	46-99	46-100	46-100	

‡ **Independent t test**

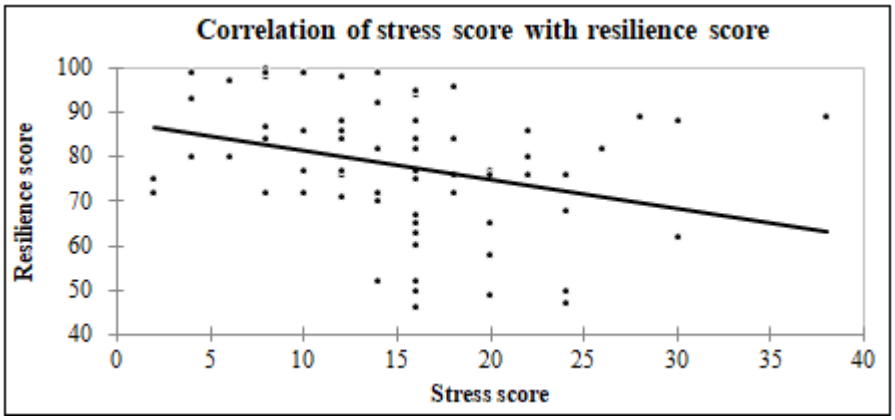
Mean ± SD of resilience score in father was 82.86 ± 12.48 which was significantly higher as compared to mother (71.65 ± 12.7).(p value <.0001)

Table: Correlation of stress score with resilience score.

Correlation coefficient	-0.290
P value	0.002

Pearson correlation coefficient

Significant negative correlation was seen between stress score with resilience score with correlation coefficient of -0.29.



4. Discussion

Understanding the outcome of SLD on parents is critical as it can have a significant impact on their children's behaviour and ability to function. Parents of children with SLD go through a considerable amount of stress when compared to parents raising a child without any psychiatric disorder[13*-14]. Various factors which might contribute to the parental stress are

1) Lack of information and knowledge about the problem15
2) social acceptance and attitudes,
3) policies and facilities available in the society for the child
4) parents' ability to cope and
5) environmental factors

Parents are under stress are less receptive, more dictatorial, and more careless with their children. Families who have a kid with SLD face a variety of difficulties, including ongoing physical and emotional crises, interpersonal conflicts, disrupted schedules, and increased costs that can put a strain on a family's finances and cause emotional pain

We used DASS-21 to study the stress scores among parents through which it was reported that 63% of parents experienced some form of psychological stress. Anpalagan et al. reported 9 that 97.5 % parents in the study, felled under the category of typical stress which is needed to be addressed because it interferes the well-being not only of the parents but also their families.

Mothers usually take the larger burden of care for the child and consciously make an effort to be with the child most of the times, leading to experiencing of more stress as compared to the fathers. The study also reported a higher stress score in mothers (18.8±5.53) which was statistically higher as compared to fathers (12.79±5.16).(p value(0.0001). The difference in the levels of stress experienced by mothers and father were associated with their gender roles where mothers were typically related with child rearing while fathers were linked with family income generation.

The study reported no difference in stress score with parents in age group between 31-40 years of age (p=0.322), but with advancing age the mean stress was significantly higher in mothers (19.06±4.67,) as compared to fathers (13.69±5.04) (p<0.0001) in age range 41-50 and 17.5±4.43 vs 10±5.18 in age range 51-60 years(p=.017) respectively and was in accordance with the findings of Sinha et. al16

The mean resilience score reported from the study was significantly higher in fathers(82.86 ± 12.48) as compared to mother (71.65 ± 12.7).

The study reported a significant negative correlation between stress score and resilience score with correlation coefficient of -0.29.

5. Conclusion

Significant proportions of parents of children with SLD were going through different levels of psychological stress with mothers at higher risk than fathers. Parents under stress are less receptive, more dictatorial, and more careless with their children leading to poor outcome in children.

A negative correlation was found between stress and resilience in the study. It is thus beneficial to screen all parents with a child with SLD for evidence of psychological stress. Early detection will help to acknowledge the problem earlier. This is helpful to the parents as well as their children as psychologically stressed parents may not be able to function optimally as parents.

6. Future Scope

The findings should be replicated on bigger samples collected from various hospital and community settings. Use of more specific scales to measure parental stress.

Assessing the coping skills and providing better ways to stress management and improving coping skills.

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