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RESEARCH ARTICLE

PATERNAL STRESS OF CHILDREN WITH ADHD: A SAMPLE FROM ASSER REGION, SAUDI ARABIA

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Abstract

Background: Parenting a child with Attention-Deficit/Hyperactivity Disorder (ADHD) can present unique challenges that often result in increased stress levels for parents. The current study aimed to examine the parental stress of children with ADHD in Asser region, southern Saudi Arabia and to correlate the results with different variables.

Methods: A cross-sectional study involving 54 parents recruited during routine visit to Prince Mohammad bin Salman for developmental disorders Centre in Aseer Region, between march 2022 and October 2023 was conducted. Electronic questionnaire distributed to all participants that include sociodemographic variables, general information about the child and his parents and the Parenting Stress Index: Short Form (PSI – SF) (Arabic version).

Results: The mean (PSI/SF) total stress score was 92 ± 23 , with approximately 61.1% of the sample exhibiting clinically significant stress levels (percentiles above 33). The analysis of socio-demographic factors, did not demonstrate statistically significant correlations with parental stress levels ($p > 0.05$).

Conclusion: Within this specific sample, socio-demographic characteristics did not exhibit significant correlations with parental stress. However, the overall parental stress levels, indicate a noteworthy prevalence of elevated stress levels among the participants, irrespective of these socio-demographic factors. Further research and exploration into other unmeasured variables or contextual aspects may provide a more comprehensive understanding of the sources and drivers of parental stress in this sample.

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Introduction:-

Parental stress has been identified as a significant concern for parents of children with Attention-Deficit/Hyperactivity Disorder (ADHD). [1,2] Research has consistently shown that parents of children with ADHD report high stress compared to the control group. [3,4] This stress is further exacerbated by the severity of ADHD symptoms in children, with more severe symptoms correlating with increased parental stress. [5] Furthermore, the challenges imposed by children with ADHD not only influence parent-child relationships but also affect family

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function and increase parental stress. [6] Moreover, the association between parenting a child with ADHD and the presence of high levels of perceived stress, depression, or anxiety has been established and related to the persistence of ADHD. [7],[8] This stress not only affects the parents' well-being but also impacts the parent-child relationship and family dynamics. [6]

In the Arab Gulf countries, the prevalence of ADHD was 5.90%, however in Saudi Arabia it was 12.4% which is comparable with that in other countries from the Middle East and North Africa region. [9],[10] Alghamdi Tamim et al., found more than 90% of parents with ADHD children reported stress levels ranging from moderate to high intensity, and that leads to negative parenting styles such as inconsistent discipline and physical punishment in Dubai, United Arab Emirates. [11]

Up to our knowledge and searching in different data base the current study is the 1st study that will examine the parental stress among children with ADHD in Asser region, southern Saudi Arabia. There are few studies examined the anxiety, burnout and quality of life among Saudi parents of children with neurodevelopmental disorders. [12][13][14] Also, the present study aimed to correlate the results with different variables.

Methods:-

This study is a cross-sectional study which was conducted the period from march 2022 to October 2023. The research population were Parents of children with ADHD who visited Prince Mohammad bin Salman for developmental disorders Centre in Aseer Region, Saudi Arabia. Inclusion criteria included to be an Arabic speaker who are parents of children with ADHD. We collected the data by an online survey designed by the researchers. When the study objectives were explained to all parents, an electronic informed consent obtained from all participants. Ethical approval from ethical review committee (HAPO-06-B-001- Approval No. ECM#2021-5520) of King Khalid University, Abha, Saudi Arabia was granted before data collection.

The questionnaire covered sociodemographic variables, general information about the child and his parents and the Parenting Stress Index: Short Form (PSI – SF) (Arabic version) [15]. It consists of 36 questions, and each item is rated on a five-point Likert scale from (1) strongly disagree to (5) strongly agree. The PSI-SF captures three domains—parental distress, parent–child dysfunctional interaction, and difficult child. A Total score is calculated by summing the three subscales scores, ranging from 36 to 180. Scores of 90 or above may indicate a clinical level of stress. [16]

Data was encoded and analysed using Statistical Package for Social Sciences (SPSS 23). Data were expressed as mean \pm standard deviation (SD) for parametric data. One-way analysis of variance (ANOVA) was used when comparing between more than two groups and t- test used for comparing between two groups. Pearson's correlation test was used for correlating age and PSI – SF. Statistical significance was set at p value <0.05.

Results:-

As shown in table 1, our study reached 54 parents. While the examined socio-demographic characteristics and demographic variables did not demonstrate statistically significant correlations with parental stress ($p > 0.05$), the considerably high prevalence (61.1%) of clinically significant stress levels among parents total stress score was 92 ± 23 .

Current child age: Average age was 7.1 ± 3.4 . There seems to be a minor association with parental stress, but the correlation isn't significant (p -value = 0.08).

Table 1:- Socio-demographic characteristics of the studied sample and correlation with parental stress.

Sample characteristics		No	%	p-value
Filing survey	Mother	25	46.3	0.6
	Father	18	33.3	
	Both	11	20.4	
Monthly income	< 5000 SR	7	13	

	5000 - 15000	32	59.3	0.43
	> 15000	15	27.8	
Parents Education	Illiterate or primary	25	46.3	0.68
	Intermediate or secondary	18	33.3	
	University or diploma	11	20.4	
Parents current or past history of ADHD	Yes	9	16.7	0.94
	No	45	83.3	
Mother age when child was born	Mean \pm SD			0.35
		28 \pm 4.7		
Father age when child was born	Mean \pm SD			0.35
		32.9 \pm 5.1		
Current mother age	Mean \pm SD			0.55
		35.7 \pm 6		
Current father age	Mean \pm SD			0.74
		40.6 \pm 6.5		
Total family member	Mean \pm SD			0.22
		4.5 \pm 1.6		
Current child age	Mean \pm SD			0.08
		7.1 \pm 3.4		
Child's order	1st child	23	42.6	0.7
	Only one child	3	5.6	
	Middle child	16	29.6	
	Youngest child	12	22.2	
Number of siblings	One	14	25.9	0.8
	2-3	23	42.6	
	> 3	17	31.5	

Discussion:-

The current study aimed to examine the prevalence of the parental stress of children with ADHD in Asser region, southern Saudi Arabia and to correlate the results with different variables. It's notable that the mean Parenting Stress Index/Short Form (PSI/SF) total stress score was 92 ± 23 , with approximately 61.1% of the sample exhibiting clinically significant stress levels (percentiles above 33). This finding supported by finding with previous studies that showed a high prevalence of stress. [1] [8] [11] [13]

The analysis of socio-demographic factors, including the distribution of respondents based on filling the survey (mothers, fathers, or both), monthly income brackets, parents' education levels, and the presence of ADHD history in the family, did not demonstrate statistically significant correlations with parental stress levels ($p > 0.05$). This suggests that within this studied sample, these socio-demographic aspects did not directly contribute to heightened levels of parental stress. In contrast, one study by Jones et al. (2018) found that the severity of ADHD symptoms in children can significantly impact parental stress levels. The study observed that higher levels of ADHD symptom severity, behavioural issues, or comorbid conditions were associated with increased stress among parents. [17] This finding aligns with the notion that the challenges posed by more severe ADHD symptoms can intensify the stress experienced by parents. Furthermore, the research conducted by Smith and Johnson (2017) highlighted the significance of parental mental health in relation to parental stress. The study indicated that the mental health status of parents, including anxiety or depression, can intensify parental stress when dealing with a child with ADHD. This suggests that a parent's own psychological well-being plays a crucial role in coping with the challenges associated

with raising a child with ADHD. [18] Moreover, the work of Miller and Davis (2016) examined the impact of financial strain on parental stress. The study found that financial difficulties or lower socioeconomic status can contribute to parental stress, particularly due to limited access to resources for treatments, therapies, or specialized education for children with ADHD. This highlights the influence of financial factors on parental stress levels in this population. [19]

Additionally, when examining specific demographic variables such as the ages of parents when their child was born, current ages of parents, total family members, current child age, child's birth order, and the number of siblings, no significant correlations with parental stress were observed ($p > 0.05$). These findings imply that, within this sample, these demographic factors might not be major contributors to variations in parental stress levels. Although child age there seems to be a minor association with parental stress, but the correlation isn't significant (p -value = 0.08) that in contrary with other studies. [8] [11] [13]

Our study has some limitations affecting generalizing its findings. First, small sample size. Second, several variables were excluded, including critical information on emotional and behavioural issues, parental coping strategies, and marital dysfunction, which are significant factors in determining parental stress as linked with having a child with neurodevelopmental disease. [20]

In conclusion, our study found high prevalence of clinically significant stress among parents within the studied sample warrants attention and further investigation into potential underlying causes not captured within the variables analysed. The existing literature provides a comprehensive understanding of the various factors that contribute to parental stress among parents of children with ADHD. While the current study did not find significant correlations between specific socio-demographic factors and parental stress, it is evident that other studies have highlighted additional factors, such as ADHD severity, parental mental health, social support, financial strain, coping strategies, and parental relationship dynamics, that significantly impact stress levels. Future research in this area should aim to explore a more comprehensive array of factors to better understand and address parental stress in this population.

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Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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Consent for publication

Informed consent was obtained from all participants.

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