

Correlation between Parental Stress, Emotional needs Satisfaction and Quality of Life among Parents of Children with Attention Deficit Hyperactivity Disorder

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Abstract

Background: Parents of a child with attention deficit hyperactivity disorder exposed to numerous detrimental effects on their quality of life as well as the fulfillment of their emotional needs satisfaction. **Aim:** Assess the correlation between parental stress, emotional needs satisfaction and quality of life among parents of children with attention deficit hyperactivity disorder. **Design:** This study performed by using a descriptive correlational research design. **Setting:** Outpatient clinics of Psychiatric Mental Health and Addiction Hospital was using a setting for the study. **Sample:** A purposive sample of 100 parents of children with ADHD was selected from the above mentioned settings. **Tools:** Tool (1): A structured Interviewing Questionnaire Sheet, Tool (2): Parental Stress Scale, Tool (3): Emotional needs satisfaction Scale and Tool (4): Quality of Life Scale. **Results:** Findings showed that half of the studied parents had high stress level and more than half of them have had moderate level of emotional needs satisfaction while less than three quarter of the studied parents had poor level of quality of life **Conclusion:** Total parental stress, total emotional needs satisfaction and total quality of life were all highly statistically significant negatively correlated among the parents included in the study, whereas total emotional needs satisfaction and total quality of life were highly statistically significant positively correlated **Recommendation:** Involvement of parents in psycho- educational programs to lower stress levels, improve their parenting satisfaction and quality of life.

Key Words: ADHD, Emotional needs satisfaction, Parental stress, Quality of life

Introduction:

An attention deficit hyperactivity disorder (ADHD) is a prevalent psychiatric disorder that onset at the childhood- also experienced a significant increase in prevalence over the past few years and continues to do so (El-Bakry et al., 2022). ADHD is defined by existing of pervasive, continuous, and impairing symptoms of inattention, hyperactivity, and impulsivity that appear before the age of 7 years, with the potential to persist into adulthood. ADHD comprises three subtypes: the inattentive, hyperactive/impulsive, and combined subtypes (Al-Habib et al., 2021).

The DSM-5 specifies the following for ADHD: These clinical features typically manifest prior the age of twelve, persist for at least 6 months, and disrupt social and daily life functioning to an extent that is developmentally inappropriate. Additionally, five or more symptoms of ADHD are present (Anastopoulos et al., 2020).

Parental stress refers to excessive anxiety and tension regarding a parents responsibilities and interactions with their children. The parents of a child with ADHD are concealed patients who require protection from emotional and physical damage. Stress may be

experienced by parents regardless of their child's illness severity; however, parents will experience severe stress following diagnosis of their children by ADHD. Stress, melancholy, and anxiety may be perceived as a psychological status that is a result of a response to stress (Uludağ et al., 2020). An unexpected stressful event that impacts the family is the delivery of a child of challenged mentally or another disabled child (Benjamin & Dorianne, 2020). Parents emotional needs whom had ADHD children are a state or condition that must be fulfilled for them to experience happiness and peace for them to acquire pleasure and tranquility. This equilibrium is maintained when parents' emotional needs are satisfactorily addressed and addressed. It is indispensable for maintaining wholesome habits. Feelings of frustration, pain, or dissatisfaction may arise when they are not met (Johnson, 2022). People are born with the innate resources to assist them in fulfilling their essential physical and emotional needs. If the primary fundamental needs of parents with ADHD are being met and resources are being effectively utilized, they are not at harm of developing psychological health issues. Conversely, the mental health and well-being of individuals may be compromised if any of these needs are not satisfied or if the resources are being abused (Deci & Ryan, 2020).

Additionally, the quality of life (QOL) is the capacity of individuals to consistently function in a normal manner and to derive satisfaction from their involvement in daily activities. Sufficient vitality for emotional stability, self-help, physical mobility, social contacts, independence from others, as well as appropriate sleep and rest, are all essential for the maintenance of these daily activities. The ADHD children management can have an impact on the daily lives of parents. This has the potential to disrupt social roles, restrict daily activities, affect on health also emotional and physical balance finally create a poor the QOL. Furthermore, it has the potential to generate economic complications (Bektas et al., 2022).

Furthermore, the parents are essential members of their children's health teams and make as the primary nurse for their affected children. In addition to their

socioeconomic status, they may encounter more significant obstacles in providing for their affected children than other parents, including increased therapy expenses, childcare difficulties, and governmental support. These issues may have a detrimental impact on childcare, exacerbate the tension of parents, and ultimately impact their QOL (Mirzaei et al., 2021).

A psychiatric and mental health nurse can analyze the behavioral attitudes, psychosocial interaction, and planned interventions. Additionally, they can motivate compliance with the treatments, elucidate the complications and severities, and administer the necessary interventions. Furthermore, nurses can engage in communication with the family to guarantee that they comprehend the most effective method of how the ADHD children require emotional support. Due to its scientific and theoretical characteristics Each mental health nurse has the capacity to participate in such activities through interdisciplinary, evolutionary analysis to contribute the treatment of ADHD, thereby enhancing the coping strategies of ADHD. This is the basic understanding (Paidipati et al., 2023).

Significance of the study:

ADHD is the second most common chronic illness in children that consider a behavioral condition. It is a neurodevelopmental disorder that is endemic and prevalent, effects 7% of children worldwide, 7.47% of African children at school-age and adolescents, and 1.3 to 16% in Arab countries. (Ayano et al., 2023). It is estimated that ADHD is present in 5-10% of children who are of school age in Egypt, and in approximately 2- 4% of adults (El-Monshed et al., 2020). Moreover, children ,and parents which perceive ADHD as a burden with ADHD experience challenges and impairments in academic, social, and affective domains, as well as essential biological functions. (National Institution of Mental Health, 2020)

Providing care to member in a family with a disability especially ADHD is one of the most difficult types of chronic stress, is one of the most challenging forms of chronic stress. To assess the relationship between the QOL of parents of children with ADHD, emotional needs satisfaction (ENS), and parental stress, it is imperative to conduct this study. This is because it will have an impact on their emotional needs and, consequently, their QOL (Jansen et al., 2022).

Aim of the study:

Assess the correlation between parental stress, emotional needs satisfaction and quality of life among parents of children with attention deficit hyperactivity disorder.

Research Questions:

- What are the levels of parental stress, emotional needs satisfaction and quality of life among parents of children with attention deficit hyperactivity disorder?
- What is the correlation between parental stress, emotional needs satisfaction and quality of life among parents of children with attention deficit hyperactivity disorder?

Subject and Methods**Research design:**

A descriptive correlational research design was implemented to accomplish the objectives of this study.

Setting:

The current study was carried out at the Psychiatric Mental Health and Addiction Hospital at the area of outpatient clinics. The outpatient clinics consisted of 6 outpatient clinics. It were located on the ground floor of the hospital. It serve the children and adolescents with psychiatric and mental disorders such as, ADHD, autism, epilepsy and mental retardation for treatment and follow up. Out-patients pediatric clinics work two days / week (Monday and Thursday) from 9 am to 1 pm.

Sample:

This study utilized type of a purposive sample to select 100 parents who had children with ADHD.

Inclusion criteria of the parents:

- Primary care giver to child
- Agree to included in the study.
- Free from history of neurological and psychological disorders

Study tools :**Tool (1):- A Structured Interviewing Questionnaire sheet:**

After reviewing some a scientific research papers, the researchers created the questionnaire. It was written in a language that was appropriate for the parents' level of comprehension and formatted in Arabic, it composed two parts.

Part 1: Socio-demographic characteristics of parents:

It was consisted of 6 items; parent's age, sex, marital status, educational level, occupation, and residence.

Part 11: Clinical data for ADHD children:

It composed of 6 items: child's age at onset of signs & symptoms of the disease, child's age at onset of diagnosis of the disease, ADHD subtype, type of treatment which child receives, number of treatment sessions per week and family history of ADHD.

Tool (2): - Parental Stress Scale (PSS):

The scale was developed by **Berry & Jones (1995)**, It was design to measure the levels of parental stress for parents. It is contained 18 items, constitute self-report assessment. Parents were enquired to assess each item on a five-point scale strongly agree (5). agree (4), undecided (3), disagree (2) and strongly disagree (1). In order to ascertain the parental stress score, items 1, 2, 5, 6, 7, 8, 17, and 18 should be reverse-scored in the following order: five (strongly disagree), four (disagree), three (undecided), two (agree), and one (strongly agree).The results of the item scores are then combined. High scores on the scale suggest that parents were experiencing a high level of stress, while low scores suggest that parents were experiencing a low level of stress. Cumulative ratings of the scale may range from 18 to 90.

Scoring system for parental stress scale:

- 18-30 grades suggest a low level stress for parents
- 31-60 grades suggest a moderate level stress for parents
- 61-90 grades means a high level stress for parents
- **Tool (3): Emotional Needs Satisfaction Scale (ENS) :**

The scale was designed by **Brett Culham, (2008)**. The scale composed of 14 items and it was intended to assess the satisfaction of nine emotional needs: the need for attention, security, autonomy, emotional connection to others, and control, feeling part of a broader community, privacy, sense of status within a social group, acceptance and value, and a sense of competence and achievement. Responses are categorized a five-point Likert scale as follows: always (5), often (4), sometimes (3), rarely (2) and never (1).

Scoring system:

- (14-33) grades : Low emotional need satisfaction.
- (34-51) grades: Moderate emotional need satisfaction.
- (52-70) grades: High emotional need satisfaction.

Tool (4) : - Quality of Life Scale (QOLS):

QOLS was developed by **World Health Organization Quality of Life Group, (1997)**; It can assess quality of life by giving the subjective opinion. It was composed of a total of 24 questions divided into four domains: psychological health (6 items), physical health (7 items), environment (8 items) and social relationships (3 items). All items are rated on a five-point scale (5 = an extreme amount, 4 = very much, 3 = a moderate amount, 2= a little & 1= not at all). Higher scores means better quality of life. The four domains are scaled in a positive direction except for three items, which are reversed before scoring.

Scoring system for Quality-of-Life Scale (QOLS):

- (less than 50%) 24 - 59 grades means poor quality of life.
- (50 -75%) 60 - 90 grades means moderate quality of life.
- (more than 75%) 91-120 grades means good quality of life.

Operational design

Validity

Content validity was operated to assure that the used tools measure what it was supposed to measure. Tools were reviewed by a five experts in the field of Psychiatric Mental Health Nursing to detect that the included items clearly and adequately cover the domain of content addressed.

Reliability:

Cronbach's Alpha was used to examine internal consistency of the study tools. Parental Stress scale is 0.918 for total score, Emotional Needs Satisfaction Scale is 0.865 for total score while Quality of Life Scale Scales is 0.947.

Pilot study

After the design of study tools, a pilot study was performed on 10% of the studied sample (10) parents, to ascertain content validity, applicability the clarity and relevance of the tools, and detect the required time needed to complete the questionnaire sheet, also the necessary changes were made. After finishing the pilot study, it was reported that, the tools were clear, applicable relevant and valid.; while, few modifications were made in rephrasing of some sentences in both parental stress scale and QOL scale. No difficulty for process of data collection. pilot study of parents were excluded from the actual study.

Field work:

The field work was performed within two months from the starting of February 2024 to the end of March 2024. The study setting was visited by the researchers two days /week (Monday and Thursday), which this days specified for treatment of children of ADHD from 9Am to 1Pm about 6-7 parents/ day. An interview was carried out for every parent individually in which the average time needed was around (30-45) minutes. At the beginning of interview the researchers greeted the parents, given brief introduction about the study purpose, obtained the consent orally to participate in the study and then each parent was asked to fill study questionnaire sheet, help parents by answered any questions that not unclear or misinterpreted in order to assist in completing study tools accurately.

Ethical considerations:

- The data collection is authorized by the ethical committee of research of the Faculty of Nursing at Benha University, with the code (REC.PSYN.P24).
- Parents' consent was obtained prior of data collection and after an explanation of the study's objectives.
- The questions sheet was completed anonymously, and assigned a code number rather than parents name.
- The parents were provided with assurance that the questionnaire form would be used exclusively for the purposes of the study and disposed at the ending of the study.
- The study sample from selected parents were not adversely affected by the study activities.
- The parents who joined the study were informed to withdraw at any time without providing any justification.

Administrative design:

To collect study data, Dean of the Faculty of Nursing at Benha University issued a written letter requesting approval from the director of the PMH and Addiction Hospital in Benha City Kaluobia Governorate and the General Secretariat of Mental Health in Egypt.

Official sanction was granted by the Human Rights Protection Committee and Research Committee of the General Secretariat of Mental Health in Egypt following the revision of the study protocol and instruments. Official approval was subsequently granted by the director of the PMH and addiction Hospital. The aim and the process of the study were clarified to the administrative personnel.

Statistical design:

The researchers were used SPSS (Statistical Package for the Social Sciences, version 25) to code, organize, input, and analyze the data. For the qualitative descriptive data, percentages and frequencies were utilized. Standard deviation and mean were used for the quantitative data analysis. Correlation analysis used the individual correlation coefficient (r) and chi-square to determine a significance level, statistical significant difference was considered if $p\text{-value} < 0.05$, non-statistical significant difference was considered if $p\text{-value} > 0.05$ and A highly statistically significant difference was considered if $p\text{-value} < 0.01$.

Results:

Table (1) reveals percentage distribution of socio-demographic data of the studied parents. Which that less than one third (32.0%) of the studied parents has 40 years and more with Mean $\pm$ SD (35 ± 9.77), over than half (60.0%) of them is female, more than three quarters (80.0%) of parents are married, over than one third (38.0%) of them has moderate education, less than two thirds (64.0%) of parents are not employing, and more than two third (70.0%) of them reside in rural.

Table (2) shows percentage distribution of clinical data of the children with ADHD. In which that children their age at onset of signs & symptoms, also at diagnosis of the disease ranged from 3 < 6 years (52.0%, 56.0% respectively). As regard to ADHD type, more than two thirds (67.0%) of children diagnosed with combined type and over than half (56.0%) of them treated with both medication and treatment sessions. Also, more than two third (73.5%) who treated with treatment sessions received sessions once per week. Furthermore, less than one third (32.0%) have family history of ADHD and (37.5%) of them from the first degree of kinship.

Figure (1) illustrate percentage distribution of total parental stress level among the studied parents, which that a high stress level is experienced by 50.0% of the studied parents, while less than 40.0% of the parents have a moderate stress level. Additionally, 10.0% of the parents have a low stress level.

Figure (2) describes the percentage distribution of the total emotional needs satisfaction level among the studied parents. Which that over half of them (57.0%) experience moderate levels of ENS, while nearly one-third (33.1%) experience high levels of ENS and (9.9%) is low.

Figure (3) reports the percentage distribution of total level of the quality of life among the studied parents . In which that an insignificant seventy percent (70.0%) of the parents have a poor level of quality of life, while twenty-two percent (22.0%) have a moderate of QOL and Only eight percent (8.0%) have an good of QOL.

Table (3) shows relationship between parents' socio- demographic characteristics and total parental stress level among the studied parents. There is a highly statistically significant relation between total stress level among the studied parents and their marital status. . While there is a statistically significant relation between parents' stress level and their age, sex and educational level .

Table (4) illustrates relationship between clinical data of the children with ADHD and total parental stress level among the studied parents. Which that, there is a highly statistically significant relation between total parental stress

level with child's age at onset of signs & symptoms of the disease Also, there is a statistically significant relation between parents' stress level and age of child at onset of the disease, ADHD subtype, family history with ADHD.

Table (5) demonstrates relationship between parents' socio-demographic characteristics and total emotional needs satisfaction level among the studied parents. While, a statistically significant relation between total level of emotional needs satisfaction and their marital status, and occupation. Also, find a highly statistically significant relation between total level of emotional needs satisfaction with their age and sex.

Table (6) explains relationship between clinical data of the children with ADHD and total parents emotional needs satisfaction level among the studied parents. There is a highly statistically significant relation between total parents emotional needs satisfaction and ADHD subtype Also, present a relation statistically significant between total level of parents emotional needs satisfaction and child's age at onset diagnosis ,signs & symptoms of the disease, type of treatment which the child receives.

Table (7) reveals relationship between parents' socio-demographic characteristics and total quality of life level among the studied parents. In which that there is a highly statistically significant relation between total level of quality of life and their age, and sex. Also, there is a statistically significant relation between total level of quality of life and their marital status, and occupation, while there is no statistically significant relation between total level of quality of life and their educational level and residence.

Table (8) shows relationship between clinical data of the children with ADHD and total quality of life level among the studied parents. In which that a highly statistically significant relation between total of quality of life level and clinical data as ADHD subtype. Also, there is a statistically significant relation with child's age at onset of signs & symptoms of the disease, child's age at onset of diagnosis of the disease, and type of treatment the child receives. On the other hand, there is no statistically significant relation with family history with ADHD.

Table (9) illustrates correlation between mean scores of total parental stress, emotional needs satisfaction and quality of life scales among the studied parents. Which that, there is a highly statistically significant negative correlation between total of parental stress, emotional needs satisfaction and quality of life. While there is a highly positive statistical significant correlation between total emotional needs satisfaction and total quality of life.

Table (1): Percentage distribution of socio–demographic characteristics of the studied parents (n=100).

Socio-demographic characteristics the studied parents	No.	%
Age (years)		
Less than 25 years	10	10.0
25 - less than 30 years	30	30.0
30 - less than 35 years	12	12.0
35- less than 40 years	16	16.0
40 years and more	32	32.0
Mean ± SD		35 ± 9.77
Sex		
Male	40	40.0
Female	60	60.0
Marital status		
Married	80	80.0
Widowed	10	10.0
Divorced	10	10.0
Educational level		
Illiterate	32	32.0
Basic education	22	22.0
Intermediate education	38	38.0
University education	8	8.0
Occupation		
Employee	8	8.0
Free business	28	28.0
Not working	64	64.0
Residence		
Rural	70	70.0
Urban	30	30.0

Table (2): Percentage distribution of clinical data of the children with ADHD (n=100).

Clinical data for children with ADHD	Studied children(n = 100)	
	No	%
Child's age at onset of signs & symptoms of the disease		
< 3 years	36	36.0
3 <6 years	52	52.0
6 <9 years	8	8.0
9 ≤12 year	4	4.0
Mean	3.6 ± 1.7	
Child's age at onset of diagnosis of the disease		
< 3 years	24	24.0
3 <6 years	56	56.0
6 <9 years	12	12.0
9 ≤12 year	8	8.0
Mean SD	3.72 ± 1.4	
ADHD subtype		
Inattention type	20	20.0
Hyperactivity / impulsivity type	13	13.0
Combined type	67	67.0
Type of treatment the child receives		
Medication	32	32.0
Treatment sessions	12	12.0
Both	56	56.0
Number of treatment sessions per week (n=68)		
Once	50	73.5
Twice	11	16.2
Triple	7	10.3
Family history with ADHD		
Yes	32	32.0
No	68	86.0
If yes, The degree of kinship of the child (n=32)		
First degree	12	37.5
Second degree	11	34.4
Third degree	9	28.1

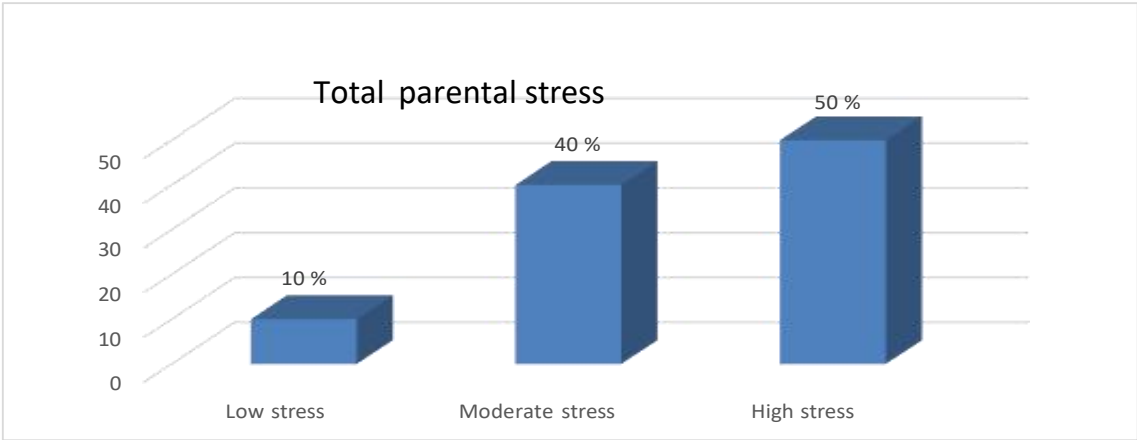


Figure (1): Percentage distribution of total parental stress level among the studied parents (n=100).

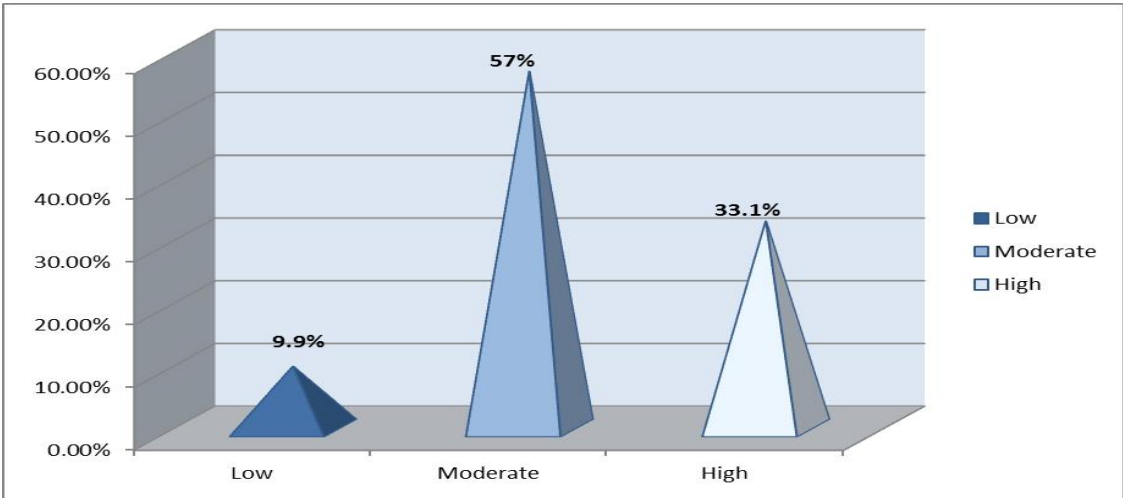


Figure (2): Percentage distribution of total emotional needs satisfaction level among the studied parents (n=100).

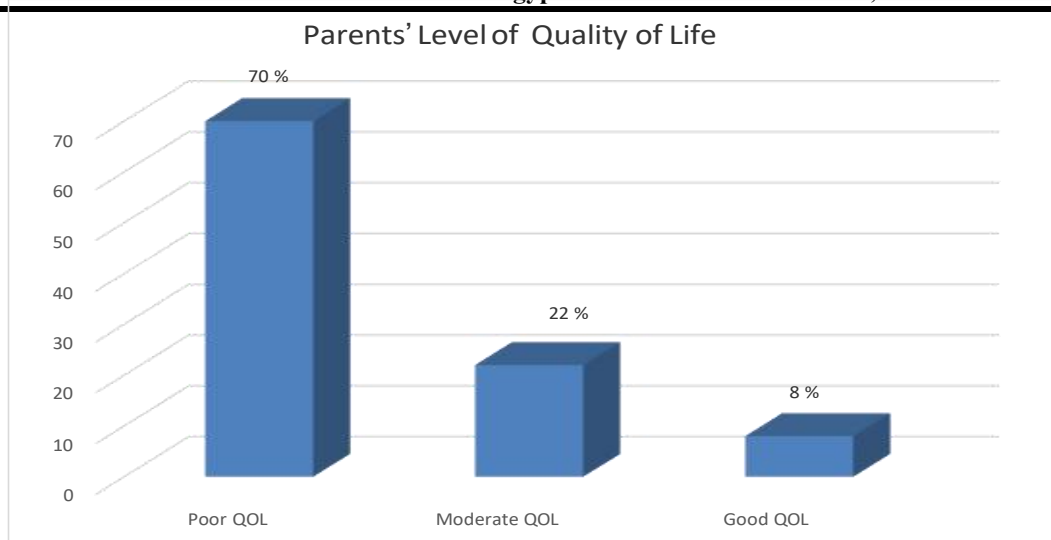


Figure (3): Percentage distribution of total quality of life level among the studied parents (n=100).

Table (3): Relationship between parents' socio-demographic characteristics and total parental stress level among the studied parents (n=100)

Parents' Socio-demographic characteristics	Total parental stress level					χ ²	P-Value
	No	Low stress	Moderate stress	High stress			
Age (years)						16.6	<0.05*
Less than 25 years	10	2	2	6			
25 - less than 30 years	30	2	18	10			
30 - less than 35 years	12	2	4	6			
35 - less than 40 years	16	4	4	8			
40 years or more	32	0	12	20			
Sex						6.7	<0.05*
Male	40	2	22	16			
Female	60	8	18	34			
Marital status						20.4	<0.01**
Married	80	8	40	32			
Widowed	10	0	0	10			
Divorced	10	2	0	8			
Educational level						15.4	< 0.05*
Illiterate	32	6	16	10			
Basic education	22	2	6	14			
intermediate education	38	0	14	24			
University education	8	2	4	2			
Occupation						5.61	> 0.05
Employee	8	0	4	4			
Free business	28	2	12	14			
Not working	64	8	24	32			
Residence						1.05	> 0.05
Rural	70	6	30	34			
Urban	30	4	10	16			

Table (4): Relationship between clinical data of the children with ADHD and total parental stress level (n=100).

Clinical data of the children with ADHD		Total parental stress level						X2	P-Value
		Low		Moderate		High			
		N	%	N	%	N	%		
Child's age at onset of signs & symptoms of the disease	< 3 years	0	0.0	8	28.6	24	48.8	9.18	<0.001**
	3 <6 years	4	20.0	20	71.4	28	53.2		
	6 <9 years	8	40.0	0	0.0	0	0.0		
	9 ≤12 year	4	20.0	0	0.0	0	0.0		
Child's age at onset of diagnosis of the disease	< 3 years	0	0.0	4	14.3	20	38.5	8.774	<0.05*
	3 <6 years	0	0.0	24	85.7	32	61.5		
	6 <9 years	8	40.0	0	0.0	0	0.0		
	9 ≤12 year	8	40.0	0	0.0	0	0.0		
ADHD subtype	Inattention type	15	75.0	5	17.9	0	0.0	13.62	<0.05*
	Hyperactivity / impulsivity type	5	25.0	3	10.7	5	9.6		
	Combined type	0	0.0	20	71.4	47	90.4		
Type of treatment the child receives	Medication	0	0.0	0	0.0	32	61.5	8.200	>0.05
	Treatment sessions	0	0.0	10	35.7	2	3.9		
	Both	20	100.0	18	64.3	18	34.6		
Family history with ADHD	Yes	8	40.0	20	71.4	36	69.2	3.990	<0.05*
	No	12	60.0	8	28.6	16	30.8		

Table (5): Relationship between parents' socio-demographic characteristics and total emotional needs satisfaction level among the studied parents (n=100)

Parents' socio-demographic characteristics	Total emotional needs satisfaction level					X ²	P-Value
	No	Low	Moderate	High			
Age (years)						30.8	<.01**
- Less than 25 years	10	7	0	3			
- 25 - less than 30 years	30	9	18	3			
- 30 - less than 35 years	12	11	1	0			
- 35 - less than 40 years	16	8	4	4			
- 40 years or more	32	14	18	0			
Sex						10.8	<.01**
- Male	40	14	20	6			
- Female	60	40	16	4			
Marital status						12.9	<0.05*
- Married	80	33	40	7			
- Widowed	10	6	4	0			
- Divorced	10	10	0	0			
Educational level						10.4	>0.05
- Illiterate	32	14	14	4			
- Basic education	22	15	5	2			
-intermediate education	38	20	18	0			
- University education	8	2	4	2			
Occupation						12.7	<0.05*
- Employee	8	2	6	0			
- Free business	28	12	14	2			
- Not working	64	38	20	6			
Residence						2.4	>0.05
- Rural	70	34	30	6			
- Urban	30	14	12	4			

(*) Statistically significant at $p < 0.05$. (**) highly statistically significant at $p < 0.01$.

Table (6): Relationship between clinical data of the children with ADHD and total emotional needs satisfaction level among the studied parents (n=100)

Clinical data of the children with ADHD		Total emotional needs satisfaction level						X2	P- Value
		Low		moderate		High			
		N	%	N	%	N	%		
Child's age at onset of signs & symptoms of the disease	< 3 years	0	0.0	8	28.6	28	53.8	11.14	<0.05*
	3 <6 years	4	20.0	20	71.4	24	46.2		
	6 <9 years	8	40.0	0	0.0	0	0.0		
	9 ≤12 year	4	20.0	0	0.0	0	0.0		
Child's age at onset of diagnosis of the disease	< 3 years	0	0.0	4	14.3	20	38.5	7.976	<0.05*
	3 <6 years	0	0.0	24	85.7	32	61.5		
	6 <9 years	12	60.0	0	0.0	0	0.0		
	9 ≤12 year	8	40.0	0	0.0	0	0.0		
ADHD subtype	Inattention type	15	75.0	5	17.9	0	0.0	13.66	<0.001**
	Hyperactivity / impulsivity type	5	25.0	3	10.7	5	9.6		
	Combined type	0	0.0	20	71.4	47	90.4		
Type of treatment the child receives	Medication	0	0.0	0	0.0	32	61.5	8.246	<0.05*
	Treatment sessions	0	0.0	10	35.7	2	3.9		
	Both	20	100.0	18	64.3	18	34.6		
Family history with ADHD	Yes	12	60.0	20	71.4	36	69.2	4.970	>0.05
	No	8	40.0	8	28.6	16	30.8		

Table (7) :Relationship between parents' socio-demographic characteristics and total quality of life level among the studied parents (n=100)

Parents' socio-demographic characteristics		Total quality of life level				χ ²	P-Value
		No	Poor QOL	Moderate QOL	Good QOL		
Age (years)						30.8	<0.01**
- Less than 25 years	10	8	0	2			
- 25 - less than 30 years	30	8	20	2			
- 30 - less than 35 years	12	10	2	0			
- 35 - less than 40 years	16	8	4	4			
- 40 years or more	32	16	16	0			
Sex						10.8	<0.01**
- Male	40	12	24	4			
- Female	60	38	18	4			
Marital status						12.9	<0.05*
- Married	80	34	38	8			
- Widowed	10	6	4	0			
- Divorced	10	10	0	0			
Educational level						10.4	>0.05
- Illiterate	32	14	14	4			
- Basic education	22	14	6	2			
-intermediate education	38	20	18	0			
- University education	8	2	4	2			
Occupation						12.7	<0.05*
- Employee	8	2	6	0			
- Free business	28	10	14	4			
- Not working	64	38	22	4			
Residence						2.4	>0.05
- Rural	70	34	32	4			
- Urban	30	16	10	4			

(*) Statistically significant at p<0.05. (**) highly statistically significant at p<0.01.

Table (8): Relationship between clinical data of the children with ADHD and total quality of life level (n=100)

Clinical data of the children with ADHD		Total quality of life level						X2	P-Value
		Poor		Moderate		Good			
		N	%	N	%	N	%		
Child's age at onset of signs & symptoms of the disease	< 3 years	0	0.0	8	28.6	28	53.8	10.14	<0.05*
	3 <6 years	8	40.0	20	71.4	24	46.2		
	6 <9 years	8	40.0	0	0.0	0	0.0		
	9 ≤12 year	4	20.0	0	0.0	0	0.0		
Child's age at onset of diagnosis of the disease	< 3 years	0	0.0	4	14.3	20	38.5	9.974	<0.05*
	3 <6 years	0	0.0	24	85.7	32	61.5		
	6 <9 years	12	60.0	0	0.0	0	0.0		
	9 ≤12 year	8	40.0	0	0.0	0	0.0		
ADHD subtype	Inattention type	15	75.0	5	17.9	0	0.0	15.63	<0.001**
	Hyperactivity / impulsivity type	5	25.0	3	10.7	5	9.6		
	Combined type	0	0.0	20	71.4	47	90.4		
Type of treatment the child receives	Medication	0	0.0	0	0.0	32	61.5	9.256	<0.05*
	Treatment sessions	0	0.0	10	35.7	2	3.9		
	Both	20	100.0	18	64.3	18	34.6		
Family history with ADHD	Yes	12	60.0	20	71.4	36	69.2	2.970	>0.05
	No	8	40.0	8	28.6	16	30.8		

Table (9): Correlation between mean scores of total parental stress, total emotional needs satisfaction and total quality of life scales among the studied parents (n=100).

Correlation	R	P-value
Total Parental stress & Total Quality of Life	-.384	.000**
Total Parental stress & Total Emotional needs satisfaction	-.256	.000**
Total Emotional needs satisfaction & Total Quality of Life	0.488	.000**

** Highly statistically significant

Discussion:

Attention Deficit Hyperactivity Disorder is not just a disorder of childhood; its symptoms can continue into adolescence and carry over into adulthood in nearly 70% of children with ADHD, as it is one of the prevalent chronic disorders affecting millions of children globally.

Parents may react to the diagnosis of ADHD in their children with depressive symptoms, anxious or empty mood, restlessness, and insomnia or oversleeping also feelings of hopelessness or pessimism, feelings of guilt or helplessness and difficulty concentrating or making decisions (Conlon, 2020).

In the current study result showed that, less than one third of the studied parents had 40 years, more than half of them were females, this result might be due to mothers are considered the first caregiver for their children and more responsible for caring. The majority of parents were married, It could due

to the nature of this study that assessed the variables for parents. This finding consistent with **Sutan et al., (2018)** reported that mean of parents' age was 35, over than half were mothers, and the most parents were married. While, this result was in inconsistent with **Wang et al., (2018)** revealed that over than half of the parents were 40 years old or more and were males.

Also, more than one third of the studied parents had moderate level of education. less than two thirds of parents were not having occupation and less than three quarters of them lived in rural areas , this result might be due to higher percentage of studied parents were mothers who were housewife lived in rural area, the life with their families and provide emotional support from life in rural area and psychiatric and mental health hospital serves a large sector of villages around it. This finding was similar to the study done by **Al-Buraiki et al., (2021)** Which that over than one third of the studied participants had intermediate education, less than two third of them were not working and the most of them lived in rural area. By opposite way, this result was in disagreement with **Talaat, (2017)** that half of the studied sample had a job and the majority of them were lived in urban area.

Regarding clinical data of the children with ADHD. More than half of children their age at beginning of symptomatology of the disorder ranged from three to less than six years. From the researchers point of view; this could be due to the caring responsible of child observed fewer warning signs at early age when the child became more interactive with the surroundings; and notice child development is different from his peers. The result of this study come in same line with a study of **El-Sadek et al., (2021)** found that the mean age at onset of signs & symptoms appear was 4.7 ± 1.5 years. On the other hand, this result contradicted with a study of **Al-Saad et al., (2021)** which that the age of onset of symptoms of ADHD was increase from 7 years to 12 years.

Regarding age at onset of diagnosis of the disease that more than half of the studied children their age was three to less than six years,. From point of view of researchers; this could be due to it is the age of preschool level which the child start to go to the nursery school. At the time of the physician need obtain information from at least 2 places (home & school) to diagnose the disease. This result was in same line with **Al-Habib et al., (2021)** in which, most cases are diagnosed when children are 3 to 7 years old, but sometimes it's diagnosed later in childhood.

Concerning to family history with ADHD, less than one third of children had positive family history with ADHD from the first degree of relationship to the studied children. It might because that the most affective causative reseon of the disease is the genetic factor which plays an important role in causing the disease especially if the degree of kinship was closer.

Regarding to total level of stress among the studied parents, which that only one tenth had low stress, less than half had moderate stress and one half had high stress level. From researchers point of view, the diagnosis of ADHD, pattern of management and side effect of treatment lead to physical and psychological stress among parents of those children. This agree with, **Sherief et al., (2018)** stated that, one half of parents had severe stress. Conversely, this result disagree with **Irwanto et al., (2020)** reported that less than one fifth of parents given caring for their ADHD children had severe stress and more than half of them had moderate stress.

Concerning total of emotional needs satisfaction level among the studied parents .It

revealed that more than half of the studied parents reported moderate emotional needs satisfaction. This might be due to attributed to adequate emotional support they receive, parents adequately prepared to deal with the emotional needs of children, more likely seeking to social and emotional support, sharing their feelings with colleagues, providing opportunities for parents to develop range of coping strategies. According to **Moore et al., (2022)**, parents who have high emotional need satisfaction are more open, flexible, and curious toward new situation, can control their own emotions, and capable of motivating their children. This result was congruent with the study performed by **Başoğlu et al., (2019)** and reported that moderate level of emotional needs satisfaction.

Regarding to total quality of life level among parents under the study, there was less than one tenth of parents had good level of quality of life and less than three quarter had poor level of quality of life. According to the researchers opinion, it could be due to following diagnosis of child with ADHD, parents had a feeling of many psychological and social problems. Such as stress, anxiety insomnia, fatigue, isolation, fear, and depression which may affect by negative way on the quality of life (QOL) of those parents. This result was agree with **Vercasson et al., (2020)** that less than three quarter of parents had poor level of quality of life. Conversely, this result was inconsistent with the study of **Yu et al., (2018)** reported that good QOL of more than half of family caregivers for ADHD children.

Accordingly relationship between parents' socio demographic characteristics and total parental stress level, there was a strong significant relation found between total parental stress level and their marital status. So that the researchers reported this result due to married parents had most responsibility; couple provide cooperation to each other to tolerate responsibility of child care and treatment than divorced or widowed. This result was same line with **Bemis et al., (2018)** reported that there was a highly statistically

relationship between total stress level among the studied sample of parents and their marital status. Conversely, this result was in disagreement with **Zarina et al., (2017)** stated that there was no relation between total stress level and their marital status.

Additionally, the result of present study illustrate that, which a statistically relationship between total parental stress level with age, sex and educational level of studied parents. According the researchers point of view, this result might be due to mothers take the large part of child's care duties and home care and younger parents may experience heavy burden. This result was in consistent with **McCarthy et al., (2018)** found that the presence of relation between parents' stress level and their age and sex. On the other hand, this result was in disagree with **Zarina et al., (2017)** reported that there was total stress level, age, sex and educational level of study participants were not related to each other.

Concerning to relationship between the clinical data of the children and total parental level of stress, There was a highly relationship between child's age at onset of appearance of signs & symptoms of ADHD and total parental stress. According the researchers opinion; this might be due to parents noticed little and alarm signs at early when the child start interaction with others and his living environment. the parents became very worry and felling of stress and anxiety about their children. This finding congruent with a study carried out by **El-Sadek et al., (2021)** reported that there highly statistically relation between child's age at onset of signs & symptoms of the disease and total parental stress.

Regarding relationship between parents' total emotional needs satisfaction level and their socio demographic characteristics, there was a strong relationship between total emotional needs satisfaction level among the studied parents and their age, and sex. The researchers

See that, this might be due to the mother had hormonal changes and more sensitive than father and when they younger were less capable to responsibility and life changes. The result of this study came agree with **Rohmah et al., (2018)** reported that present a highly relation between emotional needs satisfaction level with age, and sex among the studied sample.

Accordingly relationship between the clinical data of the children and their total of emotional needs satisfaction level, that a highly relationship between ADHD subtype and total emotional needs satisfaction level. From the researchers opinions; this might be due to, high levels of ADHD symptoms associated with inadequate of emotional responses as externalized (anger, aggressiveness) or internalized (sadness, moodiness) and children with ADHD experience more difficulties in social relationships with parents, peers and siblings than their non-ADHD peers which affect negatively on parents satisfaction. This result was consistent with **Lemes et al., (2017)** reported that highly relation between ADHD subtype and total emotional needs satisfaction.

Concerning relationship between parents' total quality of life level and their socio demographic characteristics, there was a highly statistically relation between total quality of life level and parents age and sex. according researchers opinion, this result might because parents don't have knowledge about ADHD and its complications which made heavy over load on their routine activities which might affect their quality of life, also, woman have the primary role of dealing with the children. This result was disagree with **Rohmah et al., (2018)** reported that there was no relation between total quality of life and age or sex of study participants. While the result was agree with **Mondal et al., (2020)** found that there was a good significantly relation between parents age, sex and their quality of life.

Regarding to relationship between the clinical data of the children and their total quality of life level, that a highly statistically significant relation between ADHD subtype and total quality of life. From the researchers opinion this might be in order to that, the symptoms increase and severe as in the combined type which usually lead to poor academic performance which QOL become inadequate for their parents. This result was consistent with a study performed by **Conlon, (2020)** reported that subtypes of ADHD had an effect on the QOL of their parents.

The present study showed that there was highly statistically significant negative correlation between total parental stress, total emotional needs satisfaction and total quality of life among the studied parents. From the researchers point of view, this result might be due to stress, anxiety, fear and depressive symptoms, which that these psychiatric problems occurred in the majority of parents, and causing negative impact on parents' emotional needs satisfaction and their quality of life. This result consistent with, **Yildirim et al., (2021)** reported that there was highly negative correlation between total parental stress, total quality of life and emotional need satisfaction among his studied parents.

Furthermore, the current study revealed that there was positive correlation between total level of emotional needs satisfaction and quality of life among the studied parents. According to the researchers point of view, this result could be due to when the parents being emotionally satisfied, have an active engagement in life, and maintain emotional wellbeing. All of this activities let them have a successful social life with a good effect on quality of life. This finding was as same line with result of study conducted by **Barker, (2020)** reported that highly positive correlation between total emotional needs satisfaction and quality of life among parents of ADHD children .

Conclusion:

Based on the findings of the current study, it can be concluded that less than three quarters of the studied parents had a poor level of quality of life, also more than half of them had a moderate level of emotional needs satisfaction, while half of them had a high stress level. Also, there was a highly statistically significant negative correlation between total parental stress, total emotional needs satisfaction and quality of life. While there is a highly statistically significant positive correlation between total level of emotional needs satisfaction and quality of life among the studied parents.

Recommendations

- A psycho-educational program is necessary for parents to decrease their stress levels, improve emotional well-being, and enhance their overall quality of life.
- Programs aimed at providing social support and raising awareness to promote acceptance and prevent bullying of children with ADHD.
- Conduct more extensive research using a larger sample size to ensure the results can be applied more broadly.

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