

Relation between Attention Deficit Hyperactivity Disorder Among School Age Children and Parent's Stress and Sense of Competence

Samia Salah Nagy *, Nadia Ebrahim Sayied**, Fatma Nagy Kotb***, Safaa Mohammed Zaki****

*Demonstrator of Psychiatric Mental Health Nursing, Faculty of Nursing - Minia University.

** Assistant Professor of Psychiatric Mental Health Nursing, Faculty of Nursing - Assuit University.

*** Lecturer of psychiatric Mental Health Nursing, Faculty of Nursing, Minia University.

****Lecturer of psychiatric Mental Health Nursing, Faculty of Nursing, Minia University.

Abstract

This study aimed to assess the relation between attention deficit hyperactivity disorder among school age children and parent's stress and sense of competence. Design: A descriptive correlational research design was utilized in this study. The study sample included one hundred parents having children with ADHD. The study was conducted at the children and adolescents outpatient clinic in Minia hospital for psychiatric health and addiction treatment. Four tools were utilized to measure the variables of the study included; child's and parents socio-demographic data, parent disruptive behavior disorder (DBD) Rating Scale, parenting stress index scale, and parent sense of competency scale (PSOC). Results: it was found that more than three quarters of the children had combined type of ADHD. More than two thirds of parents had high level of stress & the majority of the parents were not competent. Conclusion: There were highly significant positive correlations between total ADHD and total parent's stress ($p=.007$) & there were highly significant negative correlations between parents sense of competence and total parent's stress. Recommendations: Counseling clinics for parents of ADHD children are needed to; ensure an effective parents response to the needs of ADHD children, increase awareness, coping, competence and to decrease parent's stress.

Keywords: ADHD- parent's stress - sense of competence

Introduction

Attention deficit hyperactivity disorder (ADHD) is the most common neurobehavioral disorder of childhood characterized by persistent hyperactivity, impulsivity and inattention and it considers one of the leading diagnosed disorders in school age children around the world; it affects children and can continue into adulthood(1). The symptoms of ADHD are present for six months or more to a degree that is much greater than others of the same age and cause problems in at least two settings (such as school, home, or recreational activities) in order to receive a diagnosis of ADHD (2).

ADHD is thought to be the result of complex interactions between genetic, environmental and neurobiological factors. The Diagnostic and Statistical Manual of Mental Disorders (DSM -5) indicated that there are three subtypes of ADHD of which an individual can be classified into predominantly inattentive type, predominantly hyperactive-impulsive type and combined type. (3) The effects of ADHD are not confined to the individual alone but go beyond and can affect his/her immediate social context, especially the school and family context. (4)

The demands of parenting are usually associated with some stress and elevated levels of stress may affect the parent-child relationships and parenting practices. This is especially the case of families have children with special needs conditions or disorders like ADHD. (5) Moreover, parent caregiver experience is impacted by the needs, expectations and distress of a child with ADHD. As primary caregiver parents of children with ADHD face two major challenges: caring for their child with disabilities, which includes management of problematic behavior and balancing their own stress while overseeing the well-being of the rest of the family. (6)

Parental sense of competence is related to specific parenting behaviors, great breadth of knowledge regarding child development and are more likely to express flexible, less authoritarian child-rearing beliefs and great use of proactive techniques to handle child behaviors and less use of punitive responses. (7) Moreover, parents' perceptions of their roles as parents significantly impacts their interactions

with their children. (8) Children with ADHD makes parent's hard to concentrate, also make them feel irritable, restless and might have more trouble controlling their temper, planning things out, or sticking to a schedule. All these things may affect their roles as parents and their sense of competence (9).

Nurses have an important role in relation to parents with a child who has ADHD. They are responsible for revealing early signs of special needs in children to follow-up and give support to those children and their parents. Nurses observe, assess and interact with the child and parents to collect the data needed to establish an accurate mental health diagnosis (10).

Significance of the Study

Attention-deficit/hyperactivity disorder (ADHD) is a common neurobehavioral condition which affects 5% to 10% of the pediatric population worldwide. The rate of prevalence is 11 %, and has increased throughout even recent years—from 7.8 % in 2003 to 9.5 % in 2007 and to 11.0 % in 2012. This involves an increase of 3 % per year since 1997. (11) In Egypt, few studies investigated the epidemiology of ADHD, the reported prevalence of ADHD among primary school children ranged between 6.5% and 8% in Menoufia Governorate (12), the overall prevalence of ADHD was 6.5% in Minia Governorate among sample of school children (ages: 4 to 12 years) (13).

The children of ADHD have aggressive behaviors contribute to diminish academic and social functioning and its impact on quality of life for their families. Parents with children of ADHD feel aggression and violence toward these negative behaviors and the demands of their children. The family need emotional support and must make adjustment to care for their needs; modifying their behaviors and performing daily living activities toward their children. So, this study aimed to assess relationship between attention deficit hyperactivity disorder among school age children and parent's stress and sense of competence.

Aim of the Study

This study aimed to assess the relation between attention deficit hyperactivity disorder among school age children and parent's stress and sense of competence.

Research Questions:

- What is the strength of the relationship between ADHD and parent's stress?
- What is the strength of the relationship between ADHD and sense of competence?
- Is there a relation between parent's stress and sense of competence?

Subjects and Method:

Research Design

A descriptive correlational research design was used in this study.

Research Setting:

This study was conducted at the children and adolescent outpatient clinic of Minia hospital for psychiatric health and addiction treatment .The outpatient clinic works two days per week (Monday, and Wednesday from 9 am to 12 pm). The hospital serves Minia governorate and its districts.

Sample

A convenience sample of 100 children and their parents were included in the study.

Inclusion Criteria

- For parents:-
 - Both Gender.
 - Parents having children with ADHD.
 - Parents agree to participate in the research.
- For children:-
 - Age of child ranges from (6-12) year.
 - All children diagnosed with all types of ADHD by the psychiatrist responsible for treatment using Diagnostic and Statistical Manual of Mental Disorders (DSM 5) as diagnostic criteria.

Exclusion Criteria:-

- For parents: - Signs of major medical condition, mental retardation, psychosis, and bipolar disorder.
- For children:-
 - Children who were diagnosed as (mentally retarded, autistic disorders, conduct, oppositional and deviant disorder) would be excluded from the study.

Data collection tools:-

The following tools were utilized for collecting data in this study.

1-A Structured Interviewing Questionnaire: It was developed by the researcher and revised by supervisors which divided into two parts include data about ADHD children and their parents.

Part I: personal data of parents: such as parents age, gender and level of education, occupation, family history, family size and residence.

Part II: personal data of child: such as child age, gender, school grade and child's behavior with family.

2-Parent disruptive behavior disorder (DBD) Rating Scale (Mainly for ADHD)

Parent disruptive behavior disorder (DBD) Rating Scale (Mainly for ADHD) it was developed by Pelham (1992). It contains 45 items for (ADHD, conduct disorder, oppositional disorder). The researcher selected 18 items to assess of inattention type; hyperactivity type and combined type of ADHD. This scale includes inattention symptoms 9 items six or more items must be endorsed on the parent DBD to meet the criteria for diagnosis of Attention-Deficit/Hyperactivity Disorder Predominantly inattention Type. Impulsivity / Over activity symptoms 9 items six or more items must be endorsed on the parent DBD to meet the criteria for diagnosis of Attention-Deficit/Hyperactivity Disorder Predominantly Hyperactive-Impulsive Type.

If 6 or more items are endorsed for Attention-Deficit/Hyperactivity Disorder – inattention type and 6 or more items are endorsed for Attention Deficit/Hyperactivity Disorder-hyperactivity/impulsivity type, then criteria is met for Attention Deficit/Hyperactivity Disorder, Combined Type. The scoring system was as the following 4-point likert scale. Not at all = 0, Just a Little = 1, Pretty Much= 2, and Very much = 3, scores of the items sum –up. Total score for (DBD) ranged from (0-54), Low level ranged from (0-18), moderate level ranged from (18-36) and high level ranged from (37-54). (14)

3-Parenting Stress Index -short form scale (PSI/SF)

It was developed by (Abidin, 1995) and utilized to measure stress associated with parents of children with Attention Deficit Hyperactivity Disorder younger than 12 years of age. It was composed of 36-items with three subscales. Each item was rated on a 5-point Likert-type scale anchored by 1 “Strongly Disagree” to 5 = “Strongly Agree”. It contains three subscales (parental Distress subscale 12 items, Parent-Child Dysfunctional Interaction subscale 12 items, and Difficult Child subscale 12 items. The total score for (PSI/SF) ranged from (36-180) (Low level ranged from (36-84), moderate level ranged from (85-132) and high level ranged from (133-180). (15)

4-Parent Sense of Competency Scale (PSOC)

Parent Sense of Competency Scale was developed by (wellston 1978). The PSOC consisted of 17 items. Each item was rated on a 6 point Likert scale anchored by 1 = “Strongly Disagree” to 6 = “Strongly Agree. Nine (9) items on the PSOC are reverse coded. System score ranged from (17-102). A higher score indicates a higher parenting sense of competency (60-102), Low score indicates Low parenting sense of competency (17-59). (16)

Content Validity

These tools were translated into Arabic language and the content validity of the translated tools were checked and back translation technique was done by five panels of experts in psychiatric nursing to test the content validity of the tools (Assuit and Cairo Universities, Faculty of Nursing, Psychiatric Nursing department) and the necessary modifications were done.

Reliability

Tools	Cronbach's alpha
ADHD	0.93
Parenting stress index scale	0.82
Parent sense competency scale	0.95

Internal consistency was measured to identify the extent to which the items of tools measure the same concept and the extent to which the items are correlated with each other. Internal consistency estimated reliability by Cronbach's alpha coefficient. Cronbach's alpha coefficient of 0.00 indicated no reliability and a coefficient of 1.00 indicates perfect reliability.

Pilot Study

Pilot study was conducted on 10 parents having children with ADHD (10%) who met the inclusion criteria to investigate and ensure the feasibility, objectivity, applicability, clarity and adequacy of the study tools and to determine possible problems in the methodological approach or tool. The results of the pilot study used to test the proposed statistical and data analysis methods. The tools were completed without difficulty, adding support to the validity of the instrument. The time needed to complete the tool was 30-45 minutes according to the needed explanation. No modifications were done in the study tools based on the pilot study and the sample was included to the total study sample.

Methods of data collection

An official permission was granted from the dean of the faculty of nursing Minia University directed to the head of psychiatric health and addiction treatment at Minia Hospital. Children with ADHD and their parents were interviewed and oral consent was obtained on individual basis to explain the nature and purpose of the study. A structured interview was conducted in one room of the outpatient clinic; questions were asked and recorded by the researcher. Measures were taken to protect patient's ethical rights. Data were collected by using a socio-demographic data sheet, Parenting Stress Index (PSI) and ADHD Symptoms Checklist. The researcher was available at the outpatient unit 2 days per week (Monday, and Wednesday from 9 pm to 12 pm). The researcher conducted interviews with all Children with ADHD and their parents and collected

data from them; interview taken about 30-45 minutes depending on the degree of understanding and responses of the respondent. Data collection was conducted over a six months' period extending from March 2018 till Augusts 2018.

Each parent was interviewed individually, after explaining the purpose of the interview and getting agreement of the mother to participate in the research. The researcher assured the voluntary participation and confidentiality to each subject who agreed to participate. The questionnaires were read, explained to the studied sample and the responses were recorded by the researcher for eliminating the systematic error and for more validation of the parent's information, the child's files were revised to help in completion of the needed information.

Ethical consideration

A written initial approval was obtained from the research ethical committee of the Faculty of Nursing, Minia University. Oral informed consent was obtained from the parents after explaining the nature and benefits of the study. Each assessment sheet was coded and patient's name was not appearing on the sheets for the purpose of privacy and confidentiality. Children and their parents were assured that they could withdraw at any time from the current study without any effect on their treatment and care.

Statistical Analysis:

The collected data were coded, categorized, tabulated, and analyzed using the Statistical Package for the Social Science (SPSS 20.0). Data were presented using descriptive statistics in the form of percentages, frequency, mean and standard deviation. Inferential statistical tests of significance such as Friedman's ANOVA, Pearson correlation, and independent t-test were used to identify group differences and the relations among the study variables. Level of significance at $p < 0.05$ was used as the cut off value for statistical significance.

Results

Table (1):- Socio-demographic characteristics of the parents having children with ADHD (n=100).

Characteristics	(N=100)	%
Age / years		
-20-30years	26	26.0
-31-40years	45	45.0
-<41 years	29	29.0
Educational level		
Illiterate	48	48.0
Secondary school	5	5.0
Preparatory school	42	42.0
University	5	5.0
Family number		
1-3	6	6.0
4-6	79	79.0
7-10	15	15.0
History of disease		
present	23	23.0
Not present	77	77.0
Residence		
Rural	83	83.0
Urban	17	17.0

Table (1): showed that, less than half (45 %) of the parents were at the age group from 31 – 40 years and more than three quarters of them (79%) had 4-6 of the family number. Also, this table presented that (48%) of the parents were illiterates. In addition, most of the studied sample (77%) didn't have past history of attention deficits hyperactivity disorders and the majority (83%) of them live in rural area.

Table (2):- Socio-demographic data of ADHD child (N=100).

Characteristics	(N=100)	%
Age		
6-8 years	61	61.0
9-12 years	39	39.0
School grade		
First	49	49.0
Second	15	15.0
Third	16	16.0
Fourth	8	8.0
Fifth	4	4.0
Six	3	3.0
First preliminary	5	5.0
Child live with		
Both parents	93	93.0
One parent only	7	7.0
Child behavior		
Disruptive	39	39.0
Aggressive	61	61.0

Table (2):- demonstrated that, more than half (61%) of children with ADHD were at the age group from 6 – 8 years. Also, this table showed that less than half (49%) of them were in the first school grade and only (3%) of them were in six school grade. In addition, the majority of the study sample (93%) lived with both parents, and (61%) of them had aggressive behaviors.

Table (3): Frequency distribution of ADHD level among children (N=100)

Types of ADHD Level of ADHD	Low level		Moderate level		High level		Mean +SD
	N	%	N	%	N	%	
1-Inattention type	3	42.9%	4	57.1%	0	0	9.00+4.00
2-Hyperactivity type	0	0	9	60%	6	40 %	9.80+3.01
3-Combined type	6	7.7%	12	15.4%	60	76.9%	29.71+7.33

Table (3) demonstrated that, more than three quarters of the children (76.9%) had high level of ADHD according to the combined type. While (60%) had moderate level according to hyperactivity type. In addition, (57.1%) had moderate level according to inattention type.

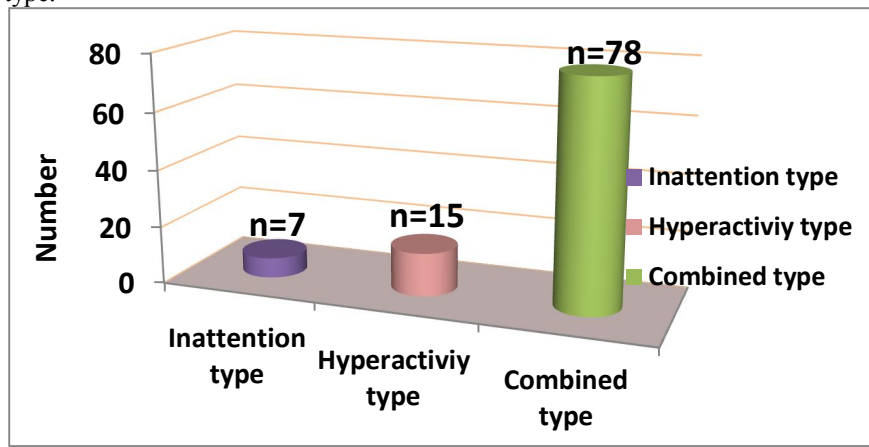


Figure (1): Types of ADHD

Figure (1) showed that, more than three quarters of the children had combined type of ADHD (78%).

Table (4): Differences between ADHD and parents socio-demographic characteristics (N=100)

Variable	ADHD				
	N	N0%	Mean + SD	t	P
-Gender	Male	٢٦%	7.15 ± 23.1	3.22	.002*
	Female	٦٤%	9.10 ± 28.7		
-Job	Work	٢٠%	6.09 ± 25.7	0.56	0.57
	Not work	٨٠%	9.42 ± 27.1		
- History of disease	present	٢٢%	7.89 ± 31.3	2.97	0.004**
	Not present	٧٧%	8.69 ± 25.3		
- Residence	Rural	٨٣%	8.87 ± 26.3	1.09	0.278
	Urban	١٧%	8.66 ± 28.8		

Statistically significant difference (*P value < 0.01)

Table (4) revealed that, there were statistically significant differences between gender and history of disease regarding ADHD (P = .002& 0.004 respectively) and it was observed that, the highest mean score of ADHD was among females (9.10 ± 28.7).

Table (5) :Frequency distribution of parent's stress regarding to the level of the parenting stress index (N=100)

Subscales of parenting stress	Low level		Moderate level		High level		Mean ±SD
	N	%	N	%	N	%	
1-Parental Distress subscale	0	0	28	28.0	72	72	45.6±6.40
2-Child Dysfunctional Interaction subscale	0	0	31	31.0	69	63.0	45.5±6.32
3-Difficult Child subscale	0	0	30	30.0	70	65.0	46.1±6.33
Total scale	0	0	89	32.3%	211	70.3%	137.3±5.32

Table (5): demonstrated that, more than two thirds (70.3%) of the parents had high level of stress. In addition the total mean score of the parenting stress index scale was (137.3±5.32). While, only (28%) of them had a moderate level of stress and the mean score was (45.6±6.40).

Table (6): Differences between parent's stress and parent socio-demographic characteristics (N=100)

Variable	parent's stress				
	N	NO%	Mean + SD	T	P –value
Gender	Male	36%	15.9± 128.7	3.91	0.000**
	Female	64%	17.2 ±142.1		
Job	Work	20%	15.7 ± 128.7	2.51	0.013*
	Not work	80%	17.4 ± 139.4		
History of disease	present	23%	14.3 ± 138.7	.443	0.659
	Not present	77%	18.4 ± 136.8		
Residence	Rural	83%	18.7 ±136.6	0.798	0.427
	Urban	17%	9.95 ±140.4		

***P< 0.01 Significant**

****P<0.001 highly significant**

Table (6) showed that, there were highly statistically significant differences between parent's gender and job regarding parent's stress (p≤0.000 & 0.013 respectively). While, it was observed that the highest total mean score was among female parents (15.9 ±142.1), not working parents (17.4 ± 139.4), parent with history of ADHD (14.3 ± 138.7) and parents living in urban area was (9.95 ±140.4).

Table (7): Frequency distribution of parents competence regarding to level of the parents sense of competence (N=100).

Items	Not competent		Competent		Mean ± SD
	N	%	N	%	
Parent competence	87	87%	13	13%	54.83±5.32

Table (7) demonstrated that, the majority (87%) of the parents had children with ADHD were not competent. While, (13%) of them were competent.

Table (8): Differences between parent's sense of competence and parent's socio demographic data

Variable	Parents sense of competence				
	N	NO%	SD +Mean	T	P –value
Gender	Male	36%	5.73 ± 56.3	2.15	0.03*
	Female	64%	4.91 ± 53.9		
Job	Work	20%	5.14 ± 57.1	2.17	0.032*
	Not work	80%	5.24 ± 54.2		
History of disease	Found	23%	6.31 ± 54.8	0.040	0.968
	Not found	77%	5.03 ± 54.8		
Residence	Rural (83)	83%	5.37 ± 55.1	0.905	0.368
	Urban (17)	17%	5.05 ± 53.7		

(Significant at *P< 0.05).

Table (8) illustrated that, there were statistically significant differences between gender and job regarding parent's sense of competence ($p \leq 0.03$ & 0.032 respectively). While, there were no statistically significant differences between history of disease and place of living regarding parents sense of competence.

Table (9) the correlation between ADHD and parents stress and parents sense of competence (n=100)

Variable	Inattention Type	Hyperactivity Type	Combined type	Total ADHD	Parent Distress subscale	Parent child dysfunctional Interaction subscale	Difficult child subscale	Total parents stress	Parents sense of competence
Inattention Type	1	.739 .000**	.906 .000**	.939 .000**	.177 .078	.229 .022*	.168 .095	.208 .038*	-.176 .705
Hyperactivity Type	-	1	.866 .000**	.925 .000**	.272 .006**	.248 .013*	.302 .002**	.228 .003**	.025 .929
Combined type	-	-	1	.951 .000**	.221 .027*	.249 .013*	.252 .011*	.261 .009**	-.016 .871
ADHD	-	-	-	1	.238 .017*	.256 .010*	.248 .013*	.269 .007**	.003 .973
Parental distress Subscale	-	-	-	-	1	.784** .000	.798 .000**	.935 .000**	-.280 .005**
Parent child dysfunctional interaction Subscale	-	-	-	-	-	1	.735 .000**	.911 .000**	-.221 .027
Difficult child Subscale	-	-	-	-	-	-	1	.917 .000**	-.257 .010**
Total parents stress	-	-	-	-	-	-	-	1	-.275 .006**
Parents sense of competence	-	-	-	-	-	-	-	-	1

Table (9) illustrated that, there were highly significant positive correlations between hyperactivity type, combined type and total ADHD with inattention type. Also, there were significant positive correlations between combined type and total ADHD with hyperactivity type. Moreover, there were significant positive correlations between combined type and total ADHD.

In addition, this table showed that, there were highly significant positive correlations among subscales of parenting stress (parent distress subscale, parent child dysfunctional subscale, difficult child subscale) and all types of ADHD (inattention type, hyperactivity type, and combined type). At the same line, there were highly statistically significant positive correlations was found between total ADHD and total parent stress ($r=.269$, $p=.007$).while, there were highly significant negative correlation were found between parent's sense of competence and subscales, total parents stress.

Discussion:

As regards to socio-demographic characteristics of parents having children with ADHD, it was found that, the highest percentages of the studied sample were illiterates, while secondary school and university education were lowest percentage (table 1). This might be due to the majority of the studied parents were living in rural area, were less knowledgeable about ADHD and with low educational level those factor were adversely affected their care and management of the ADHD child so; the children deteriorated to severe level of ADHD symptoms. This finding was incongruent with (17) who found that, the highest percentage of parents was average qualified, and the minorities of parents were illiterate. Also (18) found that, the highest percentage of parents was preparatory / secondary school education and the minorities of parents were illiterate.

Concerning the history of ADHD, the current study illustrated that, the majority of the studied parents didn't have a past history of attention deficits hyperactivity disorder (table 1). This might be due to that ADHD is the result of complex interactions between, genetic, developmental, neurological and psychosocial factors and the highest percentage of studied sample were mothers and their developmental history of pregnancy period and delivery process were normal and might be due to people didn't know difference between child normal hyperactivity and abnormal activity. In addition, the majority of parents still considering

child with ADHD stigmatizing their life so, they can avoid psychiatric treatment for fear of stigma. This result was supported by (19) who found that, more than three quarters of parents had a negative family history of ADHD, while less than one quarter had positive family history of ADHD.

Moreover, the current study represented that, more than three quarters of the parents (79 %) had 4-6 of the family number (table1). This might be due to the nature of people in rural areas preferred to have more children and no family planning. This higher number of children was associated with more difficulty in the parenting role and lead to marital stress, increased financial burden, parents feel overwhelmed, guilt and worry by responsibilities of their children disability and mothers complain about the burden of caring toward their children of ADHD. This result was congruent with the study carried out by (20) who found in his study about (71%) of parents had (4-6) of the family number. This finding was contradicted with the study carried out by (21) who found that, most of the sample (76.7%) has family size of 1-3 numbers.

As regards to socio-demographic characteristics of ADHD children, the present study demonstrated that, more than half of children with ADHD were at the age group from 6 – 8 years and were in first grade school (table, 2). It might be due to this age characterized by pervasive developmental changes and ADHD begin in early childhood and the main complain in this age is impulsivity, hyperactivity and lack of

attention in duties of schools. This result also was consistent with the result of (22) & (23) who reported that, the majority of children's age included in the samples were 7-8 years and the majority of the children were in first grade of school.

The present study demonstrated that, more than two thirds (61%) of children had aggressive behaviors, while (39%) had disruptive behaviors (table, 2). This result might be due to ADHD children often deal with a social rejection from peers and their neighbors. Parents and teachers often complain about not being able to control the behavior of these groups of children, may complain of their aggressiveness and refusal to follow rules. The children often feel not accepted by others so, their aggressive behaviors increased. This result was supported by (24) who found that, (76.7%) of children had aggressive behaviors while (33.3%) had unstable behaviors.

Concerning the ADHD characteristics, the current study presented that, the majority of the children included in the study had combined type (ADHD), while the minority was predominantly inattentive type (Fig, 1) and more than three quarters of them had high level of ADHD according to the combined type (table,3). This result was supported by (25) who conducted a study about the prevalence of attention-deficit/hyperactivity disorder in Fayoum city (Egypt) among school age children found that, the combined ADHD subtype was the most prevalent. In the same line, this finding was in agreement with a study by (26) who conducted a study about the prevalence of attention-deficit/hyperactivity disorder among primary school children found that, the combined ADHD subtype was the most prevalent, hyperactive-impulsive subtype was the second and inattentive was the third.

As regarding difference between parent's socio-demographic data regarding ADHD, the present study indicated that, there was statistically significant difference between genders of the parents regarding ADHD and it was observed that the highest mean score of parents were among females (table, 13). This might be due to that mothers who were more frequently involved in their child care, spend more time taking care for their children and more aware of their symptoms and the effects of their behaviors. Also, mothers tried to cope with their children problems and were trying to get more information about the child disease.

This result was congruent with (27) who found that, there were significant differences between genders of the parents and ADHD children because of in modern life, the females have entered the workforce and working outside home in addition to their responsibility at homes and caring for their children. The current study was in disagreement with (28) who found that, the mean score of parents having children with ADHD was high in males than in females in his study. This might be due to that fathers commonly play the central figure of authority in the family and he is the one who take the principal responsibility for disciplining their child.

Regarding stress among parents having children with ADHD, the current study also demonstrated that, more than two thirds of the parents had high level of stress (table, 5). This result might be due to that the parents were afraid of failure of their children in their school due to their distraction and lack of concentration and most of them had feeling of sadness and depression for disturbance or disorganization at home caused by their children. This result was supported by a study carried by (29) who found that, the majority of parents have children with ADHD had high level of stress;

physical, social, financial and psychological stress. In the same line (30), (31) & (32) reported that, high level of parental stress is common in parents of children with ADHD.

As regarding difference between parent socio-demographic data and parent's stress, concerning the difference between parents' genders regarding parents stress, the present study result revealed that, there was highly statistically significant difference between gender and parents stress. It was observed that, the highest mean score of parent stress was among females (table, 6). This result could be due to that mothers take care for their children than fathers. Moreover, unacceptable behaviors of ADHD children and where the mothers display more negative reactions toward their children's behaviors and use more punishments to control their hyperactivity these behaviors lead to more parenting stress. This result was in agreement with (33)& (34) who reported that, the mothers were more distressed than fathers, and that mothers are taking more responsibility in the upbringing and everyday life in families with a child with ADHD.

Regarding parents job, the present study revealed that, there was statistically significant difference between parents' job and parental stress, where parents who do not working had the highest mean score of stress (table, 6). This result might be due to that parents who are not working had low income, high financial cost of medications and the cost of visiting psychiatric clinics visits; additionally child's behavior might lead to increase of problems or conflict between husband and wife leading to disturbance in family functioning and marital stress. This result was in agreement with (35) who reported that, some mothers gave up their jobs to care for their children and to meet the demands of medical treatment for their children.

Regarding parent's sense of competence among parents having children with ADHD, the current study demonstrated that, the majority of the parents having children with ADHD were not competent (table, 7). This might be due to that the children with ADHD have greater pressure demands and efforts on their parents in addition to their duties toward the other siblings and home activity. Beside the attention of the parents was pulled in different directions toward the child with ADHD and other family members, parent's feelings of resentment by the child who requires more attention all these factors combined to create a parenting role that can quickly become overwhelming. This result was congruent with (36) who suggested that, parents of children with ADHD tend to consider themselves less competent in their role as parents.

As regarding relationship between parent socio-demographic data and parent's sense of competence, the present study also proved that, there was statistically significant difference between gender of parent and parent's sense of competence and the highest mean score of parent's sense of competence among male parents (table, 8). This result might be due to fathers' nature of responses to potentially stressful situations was different than mothers and become less stressful and more competent than mothers. This finding was supported by (37) who conducted a study about the relationship between parental stress, self-esteem and competency levels and their perception of their children's behaviours found that, statistically significant relationship between gender of parent and competency levels.

Regarding correlations between the study variable, the present study indicated that, there was highly significant positive correlation between ADHD and total parent's stress

(table, 9). This result might be due to parents' responsibility to provide extra supervision and care at home, while managing more parental demands outside of the home. Beside children with ADHD experiencing frequent academic, behavioral and social problems at school with increased demands which frequently associated with more stress in marital relation with negative impact on parents' emotional well-being and family functioning.

This result was supported by a study carried by (38) who found that, there were highly significant positive correlations between ADHD and parent stress due to the mothers complain about the burden of care which includes the emotional burden of children's conditions and unable to do their discipline demands, thus causing frustration, anger and more strict demands placed on the parents and their children. Moreover, this finding was in agreement with (39) who showed that, there was significant positive correlation between ADHD and parent stress, found most of the parents reported having to care for their hyperactive child was their main reason for feeling stressful.

Concerning correlation between parent's stress and parent's sense of competence the present study reported that, there was highly significant negative correlation between parents competence and total parental stress (table, 19), this might be due to ADHD- related characteristics of the child uniquely produce stressors that adjust parent's behaviors, family function and the parents have to face more challenges to deal with noncompliance situations, school, peer and siblings difficulties. These difficulties can also lead to increased parenting stress and decrease parenting role. Parents may have a hard time dealing with the challenges that come with caring for a child with ADHD.

This result was in agreement with (40) who showed that, the experience of parenting is different (i.e. greater stress, lower feelings of competence) for parents who perceive their child to have greater behavior problems, when compared to those parents who perceive lesser behavior difficulties. In the same line (41) who found that, families with a child of ADHD feel more stressed, less effective and less satisfied, when faced with a child who displays elevated rates of problematic behavior and increased rates of maternal depression and negative feelings about parenting competence.

Conclusions

Based on the results of the present study it could be concluded that:

- There were highly significant positive correlations between total ADHD and total parent's stress ($p=.007$) & there were highly significant negative correlations between parents sense of competence and total parents stress.

Recommendation:

A structured psycho- educational program should be developed for parents having children with ADHD to increase their knowledge about caring and dealing with ADHD children.

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