Relationship between Feeling of Burden and Psychological Capital among Caregivers of Children with Attention Deficit Hyperactivity Disorder

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Background: Caregivers of children with ADHD often experience stress and anxiety because of increasing demands of the child condition. These challenges contribute to a heavy feeling of burden and reduce psychological capital of them. As a result, their psychological capital may decline over time. **Aim**: This study aimed to assess relationship between feeling of burden and psychological capital among caregivers of children with attention deficit hyperactivity disorder. **Research design:** A descriptive correlational research design was utilized to achieve the aim of the study. **Setting:** The study was conducted at the children outpatient clinics at Psychiatric and Mental Health Hospital and Addiction Treatment at Benha city, Qalubia governorate which is affiliated to General Secretariat of mental health. **Subject:** A purposive sample of (٦٠) caregivers of children with ADHD was utilized in this study. **Tools:** Three tools were used for data collection: ***Tool (١):*** **-** A- structured interviewing questionnaire sheet included socio- demographic data of studied caregivers, socio- demographic and clinical data of the affected children as well as caregivers' knowledge about ADHD. ***Tool (٢):-*** Zarit burden interview scale & ***Tool (٣):-*** Psychological capital questionnaire. **Results:** The result of the present study revealed that one quarter of the studied caregivers who have satisfactory level of total knowledge about ADHD and more than half of the studied caregivers experience moderate burden. Also, the minority of the studied caregivers have high level of psychological capital. **Conclusion:** there is highly statistically significant negative correlation between total burden and total knowledge and total psychological capital mean scores among caregivers of children with ADHD **Recommendations:** psycho-educational nursing programs should be applied as an immediate measure for all caregivers of children with ADHD in all hospitals to improve their psychological capital and hence reduce their feeling of burden.

Key words: ADHD, Burden, Caregivers, Psychological capital.

Introduction:

Attention deficit hyperactivity disorder (ADHD) is a very common childhood-onset psychiatric condition of which the rates have risen over the past few decades a nd continue to raise. ADHD is characterized by pervasive, persistent and impairing symptoms of impulsivity / hyperactivity and/or inattention that occur before the age of seven year with the possibility of extending into adult life. ADHD has three subtypes which include the inattentive subtype, the hyperactive/impulsive subtype and the combined subtype **(Alnakhli et al., ٢٠٢٠).**

Children with ADHD are emotionally unstable, more sensitive, distressed easily and experience difficulties in maintaining attention or controlling their physical energy or movement and it is difficult for them to remain confined to a place and not to touch things, which might infect them. This disorder not only would affect the child, but it would also affect the comprehensive and wide system of the family, as caregivers of children with ADHD would experience more stress, increasing family burden, decreasing family functioning and low quality of life **(Samanta et al., ٢٠٢٢).**

Children with ADHD put the family caregivers in a dilemma regarding burden of the management of the children and handling their psychological wellbeing. Burden is a negative physical and psychological state induced among caregivers due to demands of providing care to a person with an illness or disability. ADHD places a significant burden on caregivers, economically as well as physically, socially and emotionally. Moreover, parents of children diagnosed with ADHD are more likely to present with marital problems (**Peñuelas-Calvo et al., ٢٠٢١).**

Caregivers can be affected by the disease especially on the quality of life and more likely develop psychological, social and physical problems and increased levels of distress, decreased parenting esteem and feelings of parental incompetence which can affect their psychological capital. Psychological capital is a set of positive psychological resources that can be developed and managed to improve performance and success and it can be improved through efforts and learning **(Sarwar et al., ٢٠٢٢).**

Psychological capital include four different resources which include Self efficacy which is the confidence to put in considerable effort to succeed at challenging task, Hope which commonly associated with positive expectancy towards the future, Resilience which considered the individual's capability to successfully cope with adverse circumstances, uncertainty and conflict and Optimism which is the cognitive process directed at positive outcomes or expectancies of a bright and prosperous future **(Walter & Liran, ٢٠٢٢).**

Developing positive psychological capital will serve as protection against the potentially deleterious impact of negative effect of ADHD and consequently facilitate mental health of children and their caregivers. The beneficial role of psychological capital on children with ADHD include that the children will be expected to achieve good grades in academic tasks, similar to the expectation of performing well and may be more likely to believe they can succeed in daily life (self-efficacy and optimism), find out solutions (hope), and bounce back quickly in stressful events (resilience). Moreover, psychological capital has a positive effect on caregivers of ADHD children as it can gives rise to positive mental and psychological state and can be beneficial for caregivers that may play a more influential and functional role in enhancing the parents well-being **(Wang et al., ٢٠٢٢).**

Psychiatric and mental health nurse plays an important role in using effective nursing interventions and supportive psycho-educational programs to decrease feeling of burden and improve psychological capital among caregivers of children with ADHD. The psychiatric and mental health nurse should educate caregivers about new ways to reduce their children's hyperactivity, increasing their attention and engaging them in more meaningful activities to reduce inappropriate behaviors to improve the parent–child relation and reduce parental burden and stress level **(Liaquat et al., ٢٠٢٣).**

Psychiatric and mental health nurse should educate parents to find their strengths and weaknesses, deal with existing problems more effectively and have a more positive feeling about their relation with their children and creating a commitment to long-term treatments for chronic disease. Furthermore, the psychiatric and mental health nurse should helping parents to identify the most accessible places with little costs who are specialized that give effective care for children and the proficient teachers who are specialized in dealing with those children which can in turn decrease the economic burden on caregivers of children with ADHD **(Aliye et al., ٢٠٢٣).**

Significance of the study:

ADHD considered the most prevalent psychiatric disorders and the second most common chronic illness in children. The

prevalence rate of ADHD worldwide estimated to be about ٧.٢٪ (١٢٩ million) children aged between ٥ to ١٩ years. In United States of America the prevalence rate of ADHD among children aged between ٢-١٧ years estimated to be about ٨.٤٪ (٥.٤millon children)**.** While in Arab countries varies considerably between ١.٣٪ to ١٦٪ and studies conducted in Africa reported prevalence of ADHD which ranges between ٥.٤٪ to ٨.٧٪ among school children and ١.٥٪ in the general population. In Egypt, the prevalence of ADHD according to a study conducted on a sample of school children was ٢٠.٩ % among the studied sample. Another study conducted in Egypt revealed a higher prevalence rate of ٩.٣٪ among preschoolers **(Abd Elmassehh et al., ٢٠٢٣&Aliye et al., ٢٠٢٣).**

ADHD often persists into adulthood if not managed well and it considered a risk factor for other mental disorders as conduct disorders, oppositional defiant disorder, anxiety disorders and depression. ADHD may lead to undesirable outcomes for children including educational underachievement, difficulties with employment and interpersonal relations and can also increase burden on children's caregivers and increase their psychological distress which in turn can decrease their psychological capital **(Younis et al., ٢٠٢٣).**

Several studies had reported higher levels of burden among caregivers of children with ADHD which include a study done in Hyderabad and found that the burden of caregiving was found in (٥٤.٣٪) of caregivers of ADHD children. In addition to that, another study had been conducted at Benha city, Egypt and found that more than two thirds of caregivers of children with ADHD had moderate to severe burden of care and psychological distress **(Liaquat, ٢٠٢٣ & Abd El Massehh et al., ٢٠٢٣).**

Aim of the study:

The aim of this study was to assess the relationship between feeling of burden and psychological capital among caregivers of children with attention deficit hyperactivity disorder

Research design: -

A descriptive research design was utilized to achieve the aim of the study.

Research setting: -

This study was conducted at the children outpatient clinics at Psychiatric and Mental Health Hospital and Addiction Treatment at Benha city, Qalubia governorate which is affiliated to General Secretariat of mental health. Children outpatient clinics are working from (٩ Am to ٢ Pm) ٦ days/week except Friday and holidays and specified ٢ days (Monday and Thursday) for examination and following up the children with ADHD.

Research subject:-

-A purposive sample of (٦٠) caregivers of children with ADHD were attended at the above-mentioned setting. The sample size calculated by using the following formula:

$$n=\frac{N\times p(1-p)}{\left[\left[N-1\times\left(d^2\div z^2\right)\right]+p(1-p)\right]}$$

(Thompson, ٢٠١٢).

-The sample was taken according to the following inclusion criteria:(١) Caregivers whose children aged from ٦ - ١٨ years, (٢) Caregivers from both sexes and have willingness to participate in the study (٣) Caregivers who free from psychiatric disorders, neurological disorders and visual and hearing impairments and (٤) Caregivers whose children are free from other psychiatric disorders.

Tools of data collection:-

In order to fulfill the aim of the study, the data was collected by using the following tools.

Tool (١): - A Structured Interviewing Questionnaire Sheet:

The questionnaire was developed by the researcher based on scientific review of literature and consists of three parts:

Part (١): Socio- demographic data of the studied caregivers such as degree of relation, age, marital status, level of education, residence, occupation, number of family members and family income.

Part (٢): Socio- demographic and clinical data of the affected children: -

A- Socio- demographic of the studied children such as age, sex, educational level of education, type of school that the child attend and child birth order)

B- Clinical data of the affected children such as subtype of ADHD, family history, number of sleep hours, type of treatment, number of treatment sessions and sourceof health services).

Part (٣): caregivers' knowledge about ADHD such as definition, causes, symptoms, diagnosis, treatment of ADHD, medication, behavior therapy and ways for dealing with the child.

Tool (٢): Zarit burden interview scale:

This scale was originally developed by **Zarit et al., (١٩٨٥)**. It is the most commonly used scale for assessment the level of burden among caregivers of children with ADHD. It consists of ٢٢ items which rated on a three point likert scale ranging from ٠=never, ١= sometimes and ٢= always.

Scoring system:

Item scores are added up to give a total score ranging from (٠ to ٤٤), with higher scores indicating greater burden

- No burden if scores (٠-١٠)
- Mild burden if scores (١١-٢٠)
- Moderate burden if scores (٢١-٣٠)
- Severe burden if scores (٣١-٤٤).

Tool (٣): Psychological capital questionnaire (PCQ): -

The scale was originally developed by **Luthans et al. (٢٠٠٧)**. It is the most commonly used scale for assessment of psychological capital. It consists of ٢٤ items that divided into four subscales which measure four main categories (hope, self-efficacy, resilience and optimism). Each of the four subscales has ٦ items which assessed on a ٣-point scale ranging from ١= disagree, ٢= somewhat agree and ٣= strongly agree. There are **three reversed items** number ١٣.٢٠.٢٣.

Scoring system:

The total scores of psychological capital questionaire ranged from (٢٤ to ٧٢) with higher scores indicated higher level of psychological capital. To get the total score of the scale the researcher firstly, reversed of scores of the three items (١٣, ٢٠ & ٢٣) and then each scale item was graded and then added together to give total score.

Scoring system indicated the following:

- Low if scores (< ٥٠٪) ٢٤-< ٣٦ grades
- Moderate if scores (٥٠-< ٧٥٪) ٣٦ -< ٥٤ grades
- High if scores (> ٧٥٪) ٥٤ – ٧٢ grades

Methods of study

Field work:-

The present study was conducted in four phases.

١- Preparatory phase:-

This phase was the first of the thesis, it included reviewing of past, current, local, and international relevant literature and different studies related to the topic of research. Textbooks, articles, magazines, periodicals and internet were used to get a clear picture of all aspects related to the research topic. This helped the researcher to be acquainted with magnitude and seriousness of the problem and guided the researcher to prepare the required data collection tools.

Content validity of the tools:

- Arabic translation was done by researcher for psychological capital questionaire and tested for their translation.
- Modifications were made in the style and paraphrasing of questions that measure caregivers' knowledge about ADHD. These modifications were made with the objective of its accuracy and consistency.
- The researcher also, made rephrasing of some sentences in Arabic translation in both burden scale and psychological capital scale to become easier and more understandable for all studied caregivers.
- Content validity of tools was done by jury of ٥ experts in Psychiatric & Mental Health Nursing, who checked the relevancy, comprehensiveness, clarity and applicability of the questions. According to their opinions, modifications were done and the final form was developed.

Reliability of the tools:

Reliability of tools: The internal consistency of the tools was checked by Alpha Cronbach reliability analysis.

Tools	No. of items	Alpha Cronbach	Indicator
knowledge of the studied caregivers about ADHD	١٠	٠.٧٤٨	Strong reliability
The Zarit burden interview scale	٢٢	٠.٧٨٩	strong reliability
Psychological capital questionnaire	٢٤	٠.٩١٩	strong reliability

Ethical considerations:

- An approval from the ethical committee from faculty of nursing, Benha University was obtained to conduct the study.
- The researcher assured voluntary participation for every selected caregiver involved in the sample and the purpose of the study was explained.
- A written consent was obtained from all the studied caregivers of children with ADHD after informing them about the purpose of the study and they were informed about their right to withdraw from the study at any time without giving any reason.
- Data confidentiality and caregiver's privacy were secured throughout the study.

A pilot study:

- Before starting data collection, a pilot study was conducted to assess the clarity and applicability of the study tools and identify the time needed to fill each tool. It was carried out on ١٠٪ of the study subjects, (٦ caregivers of children with ADHD) who were excluded from the main study sample. After collecting pilot study, it was found that each caregiver took ٤٥-٥٠ minutes to fulfill tools of the study.

Field work:

- Data collection of this study was carried out at the children outpatient clinics at Psychiatric and Mental Health Hospital and Addiction Treatment at Benha city, Qalubia governorate. A comfortable place was chosen for interviewing the studied caregivers.
- Each studied caregiver was interviewed individually to collect the necessary data in privacy using all study tools, (Socio-demographic data of the studied caregivers, socio- demographic and clinical data of the studied caregiver's children, knowledge of the studied caregivers about ADHD, zarit burden interview scale and psychological capital questionaire).
- Researcher began data collection by introducing herself to the studied caregivers and they were informed about their rights to withdraw from the study at any time.

The study tools were collected ٢ days/week (Monday & Thursday) at ٩ A.M. to ٢ P.M. while ٦ women were interviewed per day. Each interview lasted for ٤٥-٦٠ minutes depending on the response of the interview.

Statistical analysis:

The collected data organized, tabulated and statistically analyzed using Statistical Package for Social Science (SPSS) version ٢٥ for windows, running on IBM compatible computer. Descriptive statistics were applied (e.g. frequency, percentages, mean and standard deviation). Test of significance, qualitative variables were compared using Chi square test, quantitative variables were compared using paired t test. Correlation coefficient test (r) was used to test the correlation between studied variables. Linear regression model was used to analysis of the predictors of knowledge, burden and psychological capital among caregivers of children with ADHD. Reliability of the study tools was done using Cronbach's Alpha. **Significance levels were considered as follows:**

- Highly statistically significant $P < ٠.٠٠١$**
- Statistically significant $P <٠.٠٥$*
- Not significant $P \geq ٠.٠٥$

Results:

Table (١): Shows that, more than three quarters of the studied caregivers (٧٨.٣٪) are mothers, less than half of them (٤٦.٧٪) are between ٣٠-<٤٠ years old, with Mean ±SD age is ٣٨.٧١±٧.٥٤ years. Less than three quarters of them (٧٠.٠٪) are married. Less than half of them (٤٦.٧٪) have secondary education. Majority of them (٨٠.٠٪) aren't work. Majority of them (٨٣.٣٪) live at rural areas. Majority (٨٥.٠٪) of them have ٤-٦ members and less than three quarters of the studied caregivers (٧١.٧%) haven't enough income.

Table (٢): Shows that, more than half of the studied children (٥٨.٣٪) are between ٦-<٩ years old, and the Mean ±SD age is ٧.٨٥±٤.٦٦ years. the Majority of them (٨١.٧٪) are males. The vast majority of them (٩٠.٠٪) have primary education. More than half of them (٥٦.٧٪) are at governmental schools with integration classes and less than half of them (٤٠.٠٪) are the first child.

Table (٣): Illustrates that, less than three quarters of the studied children (٧٣.٣٪) have combined type (attention deficit hyperactivity disorder). More than half of the studied children (٥١.٧٪) have family history (nearly two thirds of them (٦٤.٥٪) are second degree relatives). Less than half of them (٤٨.٣٪) sleep ٦ < ٨ hours daily. Majority of them (٨١.٧٪) receive medications and behavioral treatment sessions and majority of them (٨١.٧٪) receive health services from governmental health sector.

Figure (١) shows that, one quarter (٢٦.٧٪) of the studied caregivers who have satisfactory level of total knowledge about ADHD

Figure (٢) Shows that, more than half of the studied caregivers (٥٨.٣٪) experience moderate burden

Figure (٣): Shows that, the minority (١٨.٣٪) of the studied caregivers have high level of psychological capital

Table (٤): Shows that, there is highly statistically significant negative correlation between total burden and total knowledge and total psychological capital mean scores among caregivers of children with ADHD.

Table (١): percentage distribution of the studied caregivers according to their socio-demographic data **(n=٦٠).**

Socio-demographic data of the studied caregivers	Studied caregivers (n=٦٠)	
	No	%
Degree of relation		
Father	٣	٥.٠
Mother	٤٧	٧٨.٣
Brother	١	١.٧
Sister	٢	٣.٣
Grandmother	٤	٦.٧
Uncle	٢	٣.٣
Aunt	١	١.٧
Age (years)		
٢٠-<٣٠	١٦	٢٦.٧
٣٠-<٤٠	٢٨	٤٦.٧
٤٠-<٥٠	١٢	٢٠.٠
≥٥٠	٤	٦.٦
Mean ± SD ٣٨.٧١±٧.٥٤		
Marital status		
Single	٣	٥.٠
Married	٤٢	٧٠.٠
Widowed	٧	١١.٧
Divorced	٨	١٣.٣
Education level		
Illiterate	٣	٥.٠
Read and write	٤	٦.٦
Primary education	٣	٥.٠
Preparatory education	٩	١٥.٠
Secondary education/Diploma	٢٨	٤٦.٧
High education	١٣	٢١.٧
Occupation		
Working	١٢	٢٠.٠
Not working	٤٨	٨٠.٠
If the answer is "working", what is the type of work? (n=١٢)		
Employee at governmental sector	٦	٥٠.٠
Employee at private sector	٤	٣٣.٣
Free work	٢	١٦.٧
Residence		
Rural	٥٠	٨٣.٣
Urban	١٠	١٦.٧
Number of family members		
٣ members	٣	٥.٠
٤-٦ members	٥١	٨٥.٠
More than (٦) members	٦	١٠.٠
Family income		
Not enough	٤٣	٧١.٧
Enough	١٣	٢١.٧
Enough and can be saved	٤	٦.٦

Table (٢): Percentage distribution of socio-demographic data among the studied children **(n=٦٠).**

Socio-demographic data of the studied children	Studied children (n=٦٠)	
	No.	%
Age (years)		
٦-<٩	٣٥	٥٨.٣
٩-<١٢	١٩	٣١.٧
١٢-<١٥	٤	٦.٧
١٥-١٨	٢	٣.٣
Mean ± SD ٧.٨٥±٤.٦٦		
Sex		
Male	٤٩	٨١.٧
Female	١١	١٨.٣
Education level		
Primary education	٥٤	٩٠.٠
Preparatory education	٤	٦.٧
Secondaryeducation/ Diploma	٢	٣.٣
Type of school that the child attends		
Governmental schools	١٩	٣١.٧
Private schools	٤	٦.٦
Governmental schools with integration classes	٣٤	٥٦.٧
Experimental schools	٣	٥.٠
Child birth order		
First child	٢٤	٤٠.٠
Second child	١٣	٢١.٧
Third or more	٢٣	٣٨.٣

Table (٣): Percentage distribution of the clinical data among the studied children **(n=٦٠).**

Clinical data of the studied children	Studied children (n=٦٠)	
	No.	%
Type of attention deficit hyperactivity disorders		
Predominantly inattentive type	٧	١١.٧
Predominantly hyperactive / impulsive type	٩	١٥.٠
Combined type	٤٤	٧٣.٣
Is there a family history for this disease?		
Yes	٣١	٥١.٧
No	٢٩	٤٨.٣
If the answer is "yes", what is the degree of relationship? (n=٣١)		
First degree relatives	١١	٣٥.٥
Second degree relatives	٢٠	٦٤.٥
Number of sleep hours		
< ٣ hours	٤	٦.٧
٣ - < ٦ hours	٢٧	٤٥.٠
٦ - < ٨ hours	٢٩	٤٨.٣
Type of treatment the child receives		
Medications only	١١	١٨.٣
Behavioral treatment only	٠	٠.٠
Both medication and behavioral treatment	٤٩	٨١.٧
Number of treatment sessions per week (n=٤٩)		
Once	٢٦	٥٣.١
Twice	٢١	٤٢.٩
Three times	٢	٤.٠
Source of health services for family		
Governmental health sector	٤٩	٨١.٧
Private health sector	٠	٠.٠
More than one source	١١	١٨.٣

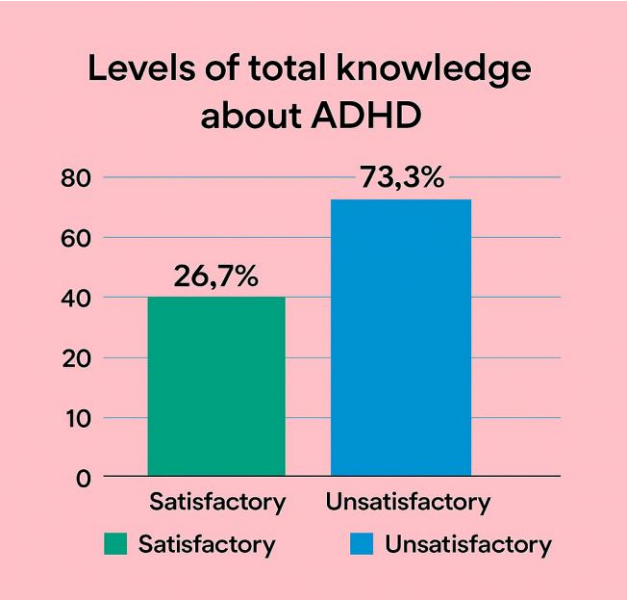

Figure (١): Levels of caregivers' knowledge about ADHD pre and post implementation of psycho-educational nursing program **(n=٦٠)**.

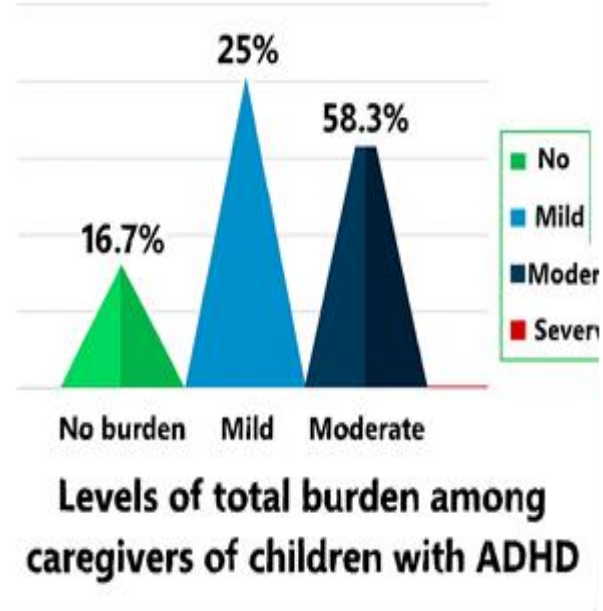

Figure (٢): Levels of burden among caregivers of children with ADHD pre and post implementation of psycho-educational nursing program **(n=٦٠)**.

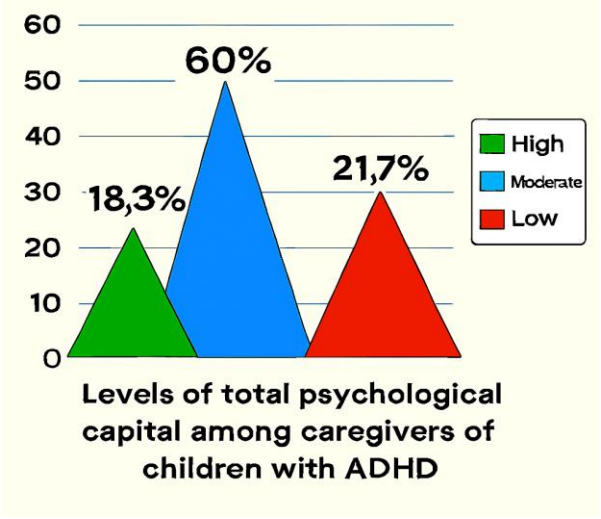

Figure (٣): Percentage distribution of total level of caregivers' psychological capital among caregivers of children with ADHD **(n=٦٠)**.

Table (٤): Correlations between total knowledge about ADHD, total burden and total psychological capital mean scores among the studied caregivers **(n=٦٠).**

Variables		Total knowledge score	Total psychological capital score
Total knowledge score	**R** **p**		٠.٦٨٩ ٠.٠٠٠**
Total burden score	**R** **p**	-٠.٦٦٤- ٠.٠٠٠**	-٠.٩١٥- ٠.٠٠٠**

Discussion:

Data emerging from the present study showed that, less than half of the studied caregivers are aged ٣٠-<٤٠ years, and the Mean ±SD of age is ٣٨.٧١±٧.٥٤ years. From researchers' point of view this might be due to more than three quarters of the studied caregivers are mothers and less than three quarters of them are married at this study and less than three quarters of them are married most of mothers has children at school age and the most common age of marriage in Egypt is ٢١ years so that the age of ٣٠ and more is the logical ages of parents have school age children.

Regarding educational level, less than half of the studied caregivers have secondary education. From researchers' point of view these results could be due to the sample taken from governmental hospital which serves many rural areas and according to rural culture many girls didn't have the interest to reach high level of education as secondary education may be seen as the most attainable level of education for girls.

The present study results illustrated that the majority of the studied caregivers weren't work from researchers' point of view these results could be due to an increased percentage of unemployment in rural areas and mothers preferred housework rather than employment. Furthermore, As regard to family income, less than three quarters of the studied caregivers mentioned that, their income is not enough this due to the child with ADHD has special needs and their medication ae expensive and the hospital doesn't provide all the necessary medication for the ADHD children All of this contributes to not having enough income, especially in the case of increasing in their daily living finance and the cost of treatment and follow-up for their children.

Concerning to caregivers residence, the present study results illustrated that the majority of the studied caregivers live at rural areas. From researchers' point of view these results could be due to the sample taken from governmental hospital which serves many rural areas. Moreover, the results of the present study reveals that, the majority of the studied caregivers consist of ٤-٦ members and more than three quarters of the studied caregivers are mothers this may be due to that Egyptian family culture that, mothers have more responsibility compared to fathers in caring for children with ADHD; have more interactions with health-care providers, teachers, and school staff.

Regarding socio–demographic data of ADHD children, the current study reveal

that, more than half of the studied children are aged ٦-<٩ years with the Mean ±SD of age is ٧.٨٥±٤.٦٦ years this may be due to that most of children diagnosed with ADHD when go to school when ask him to keep calm and give attention for their studying and this the time that physician need obtain information from at least ٢ places (home & school) to diagnose the disease. The results of this study was in accordance with a study conducted by **Hamed, (٢٠٢٢).**Which entitled (The Effect of Behavioral Training Program on Stress among Parents of Children with Attention Deficit Hyperactivity Disorder) and revealed that the mean age of the studied Children was ٧.٣٦+١.٩٧.

Regarding sex, the majority of them are male from researcher point of view may be due to that the prevalence rate of ADHD most common at males more than females especially the most common type affect the studied children is the combined type attention deficit hyperactivity disorder also may be because hormonal changes between two sexes. Hormonal influences on the organization of behavior place males at greater risk for early developing disruptive behavioral disorders, so males tend to exhibit hallmark symptoms of hyperactivity

As regard to educational level, the vast majority of the studied caregivers have primary education from the researcher point of view may be due to that more than half of the studied children are aged ٦-<٩ years this is the age of primary education. As well as, more than half of them are at governmental schools with integration classes this may be due to that the academic achievement of those children become poor due to their poor performance and attitude make the school need to join them to integration classes for enhancement their academic achievement.

Furthermore, the results of the present study reveal that less than half of the studied children are the first child from the researcher point of view this may be due to that higher prevalence was reported in the first child birth order may be attributed to increased risk of complicated pregnancy in primigravida and the lack of experience of mothers to deal with the first baby while on the second or third child she become have enough experience and doesn't need to go to the clinic much.

Regarding clinical data of ADHD children the current study reveal that less than three quarters of the studied children have combined type (attention deficit and hyperactivity). This may be due to that the combined type is the most prevalent type affect children especially males. As regard to family history, more than half of the studied children have family history in which less than two thirds of them are second degree relatives. From researcher point of view may be due to that the most dangerous risk factor of the disease is the genetic factor which plays an important role in causing the disease.

Regarding to sleeping hours, less than half of the studied children sleep ٦ < ٨ hours daily hours this may be due to that they take medication prescribed for them regularly and effect of of medication make the child calm and sleep at least٦ hours. As well as, the majority of them receive medications and behavioral treatment sessions. Furthermore, the majority of them receive health services for family from governmental health sector from researcher point of view this may be due to that governmental hospital which give health support considered the appropriate place for ADHD children for receive treatment and follow up and most of the services in addition to this its necessary because most of schools need documented governmental reports about the child with ADHD before enrolling to it.

Regarding total levels of caregivers knowledge about ADHD, these present result clarified that, three quarter of the studied caregivers who have unsatisfactory level of total knowledge about ADHD. these results

may be attributed to many caregivers didn't have enough knowledge about the definition, symptoms, stimulant drugs, its effect and actions when dealing with ADHD child. This knowledge gab because of caregivers with ADHD children may not receive accurate information from schools, healthcare providers, or media and ADHD often misunderstood as a bad behavior and misdiagnosed, especially in rural areas where mental health education is lacking. Furthermore pediatric and psychiatric services may not prioritize parental education during diagnosis or treatment and also mental health stigma can discourage families from seeking help or discussing behavioral concerns.

The current study result was in accordance with the study of **Hussein, (٢٠٢٤)** which entitled *(*Assessment of mothers knowledge and practice regarding care for their children with attention deficit hyperactivity disorder) and reported that The majority of the studied mothers had unsatisfactory total score level of knowledge about ADHD. In contrast, this present result was congruent with the study of **Alhefdhi et al., (٢٠٢٤)** which entitled (Exploring quality of life, discrimination, and knowledge of parents of ADHD children in Saudi Arabia: A cross-sectional study) and revealed that, a significant portion of the parents with ADHD children believed that they don't have satisfactory information about ADHD.

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Regarding the total level of burden among the studied caregivers, the current results illustrates that, more than half of the studied caregivers experienced moderate burden. From researcher point of view before program implementation this could be due to that most of the studied caregivers has unsatisfactory knowledge level and frequent behavioral issues of their children like impulsivity and inattention that can lead to negative school interactions, such as repeated calls or meetings about the child's behavior, limited opportunities for enjoyment due to fear of meltdowns or conflict because of any comments about the child behavior.

Moreover, the result of this study was in the same line with the study of **Abdelwahab et al ., (٢٠٢٤)** which entitled (Relation between care burden, parenting style and resilience among caregivers of children with attention deficit hyperactivity disorder) that revealed that nearly three quarter of caregivers had moderate burden. In addition , this result was parallel with a study done by **De-Lorient et al (٢٠٢٣)** which entitled (Relationship between sociodemographic factors and caregiver burden among mothers of elementary school students with ADHD symptoms in Surabaya: a cross-sectional study) and revealed that more than one third thirds had moderate burden.

Regarding total psychological capital level among the studied caregivers the minority of the studied caregivers have high level of psychological capital. From researcher point of view before program implementation, these results could be due to that caregivers had reduced self-efficacy stemming from repeated parenting struggles and perceived failure to manage the child's behavior effectively, also may feel judged or misunderstood by others, leading to withdrawal from social networks, financial pressure and limits access to support services. In addition to this the child's behavioral challenges increase parental burden, which in turn reduces psychological capital, making it harder to cope creating a vicious cycle that can be difficult to break.

This present results were agreed with a study conducted by **Haddad et al., (٢٠٢٤)** who conducted a study entitled (Comparison of Parenting Stress and Psychological Capital of the Parents of Children with Attention Deficit/hyperactivity, Oppositional Defiant Disorder and Typically Development Children) revealed that showcased lower levels of psychological capital compared to parents of typically developing children and

those with Attention Deficit/Hyperactivity Disorder (ADHD).

Concerning correlations between total knowledge about ADHD and total psychological capital mean scores among the studied caregivers, there is highly statistically significant negative correlation between total burden and total knowledge and total psychological capital mean scores among caregivers of children with ADHD

From researcher point of view, caregivers who had poor knowledge about ADHD had moderate level of psychological capital, this could be due to caregivers had lower ADHD knowledge due to lack of education and awareness that result in have lower psychological capital because they felt less confident, hopelessness and become not emotionally prepared for caring their child. This results were supported by ***Susmarini, & Shin, (٢٠٢٤)*** who conducted a study entitled (Family resilience and caregiver's well-being across different age groups of children with ADHD in the United States) and revealed that there was highly statistical significant negative correlation among the studied variables.

Finally, it can be said that there is a great relationship between feeling of burden and psychological capital among the studied caregivers. So, we can say that when feeling of burden increased psychological capital is decreased among caregivers of children with ADHD.

Conclusion:

Based on the results of the present study, the following conclusions were formulated:

there is a great relationship between feeling of burden and psychological capital among the studied caregivers. as three quarter of the studied caregivers who have unsatisfactory level of total knowledge about ADHD and more than half of the studied caregivers experienced moderate burden Also, the minority of the studied caregivers have high level of psychological capital.Also, there was a highly statistically significant negative correlation between between total burden and total knowledge and total psychological capital mean scores among caregivers of children with ADHD.

Recommendations:

Based on the findings and conclusion of this present study, the following recommendations are suggested:

- Implementation of educational programs about ADHD focused on building psychological capital (e.g., hope therapy, resilience training, mindfulness-based stress reduction). all children outpatient clinics for better understanding of the disease.
- Provide workshops and coaching for caregivers to strengthen self-efficacy, optimism, and goal-setting skills.
- Application of the study using a larger sample in different correlational settings to generalize the results.
- Offer accessible counseling services or peer support groups to reduce emotional distress and prevent burnout.

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