Mariam Sudkey Abd El massehh<sup>1</sup>, Naglaa Fathi Mohamed <sup>2</sup> and Eman Nabawy Abo Zeid<sup>3</sup> (1) Nurse Specialist in Fever Hospital, Qalyubia governorate, (2) Assistant Professor of Psychiatric and Mental Health Nursing, Faculty of Nursing-Benha University, and (3) Lecturer of Psychiatric and Mental Health Nursing, Faculty of Nursing-Benha University.

#### **Abstract**

Background: Pandemic covid 19 posed unique challenges for caregivers of children with attention deficit hyperactivity disorder. caregivers of those children reported higher levels of burden, depression, anxiety and stress during pandemic. Aim of study: Was to examine burden of care and psychological distress among caregivers of children with Attention Deficit Hyperactivity Disorder (ADHD) during covid 19. **Research design:** A descriptive correlational design was utilized to achieve the aim of study. **Setting**: This study was carried out in pediatric outpatient psychiatric clinic in Benha Psychiatric health and Addiction treatment Hospital in Benha city. **Study subject:** Purposive sample of 120 caregivers having children with ADHD, males and females, were included in the study. Tools of data collection: Three tools were utilized to collect data. Tool I: structured interview questionnaire sheet to assess socio demographic, clinical data and knowledge of caregivers about ADHD. Tool II: The Zarit burden interview scale. **Tool III:** Depression, Anxiety and Stress Scales (DASS -21). Results: More than two thirds of the studied caregiver had moderate level of burden of care, more than half of the studied caregivers had moderate psychological distress level and more than third of studied caregiver had severe psychological distress level, and minority percent of studied caregiver had mild psychological distress. **Conclusion:** There was a statistically significant positive correlation between total burden of care and total psychological distress among studied caregivers. **Recommendations:** Implementation psycho educational program to reduce burden of care and psychological distress among caregivers of children with ADHD.

**Keywords:** Attention-deficit/hyperactivity disorder; Burden of care; Caregivers; COVID-19; Psychological distress.

#### Introduction

The covid-19 pandemic is causing a number of challenges for many people particularly those with ADHD and their caregivers who may be vulnerable to stress due to the pandemic and therefore display increased behavioral problems. Social isolation may be especially harmful for children with ADHD. Navigating life from home can lead to major changes in child's daily life. For instance, children with ADHD may have difficulty waking up and falling asleep at the same time when they don't have to leave their home. These disruptive changes in daily life of children with ADHD may trigger new or worsening symptoms of ADHD or other mental health conditions, such as anxiety or depression. Therefore, Practicing preventive measures, creating a routine and a calm environment, exercising and socializing digitally may help all relieve these symptoms (Klein, 2020).

Attention deficit hyperactivity disorder is a complex disorder that characterized by an

ongoing pattern of inattention hyperactivity and/or impulsivity that interferes with functioning development. It caused by multiple factors making it difficult to identify the exact causes. Genetic and environmental factors, and their interactions, are known to contribute to this disorder. Environmental factors include maternal smoking during pregnancy and duration of breastfeeding. In recent years, the results of several studies have indicated that lifestyle factors including the number of hours spent sleeping or watching television may also influence the onset of ADHD (National Institute of Mental Health, 2019).

Furthermore, the children with ADHD experience difficulties in maintaining attention or controlling their physical energy or movement. It is difficult for them to remain confined to a place and not to touch things, which might infect them. As a result of being confined to one place, their hyperactivity increases along with heightened impulses and it becomes difficult for the caregivers to engage these children in meaningful activities. In addition, children have emotionally pent up feelings of distress which may turn inwards into emotional fear or outwards towards acting out behavior . They might feel separated or alone as they have limited knowledge and level of maturity to understand the implications of the current pandemic (Liu et al., 2020 and Cortese et al., 2020).

Accordingly, there is a need for home-based interventions for these children to reduce their distress and that of their family members. It can be said that the interventions need to focus on channelizing the high energy levels of the children in more productive indoor activities, addressing emotional disturbances (such as irritability, anxiety, and boredom), controlling disruptive behaviors, and reducing the time of screen media use. Based on these inputs, interventions were planned and included strategies such as token

economy, contingency management, effective communication skills, time out, activity scheduling to channelize the energy, and supervised and controlled screen use. Therefore, the usual psycho-education about the disorder, needs to focus on some of these interventions (**Agarwal et al., 2020**).

Caregivers of children with ADHD in comparison to the parents of normal children have decreased performance in their parental and non-parental roles. As the child ages, physical, mental, social, and psychological exhaustion would grow more on the caregiver and would have adverse consequences on the condition of other children and their marriage .Therefore, this disorder would have a significant influence on the parents, other members of the family, and the child him/herself. Moreover, the mental aspect of the caregivers and their mental and social burnout in general and their psychological condition had repeatedly been mentioned in extracted subclasses and codes. Previous studies about children with ADHD had clearly stated that those children would affect the family environment and their parents' marital status and would decrease parents' mental health and consequently increase the burden of care (Pahlavanzadeh et al., 2018).

Therefore, caregivers may play an important role in creating a daily schedule of rehabilitation sessions for their children to help reduce any increase in their anxiety. Past work demonstrated that any infectious diseases outbreak (including COVID-19) has a negative impact on the psychological state of the general population. Moreover, certain caregivers might have found them difficult to implement because of several reasons including lack of support from healthcare providers in form of communication and interaction, low self-efficacy, low level of knowledge and ability to carry out homecare therapy and poor functioning of child (Lillo-

### Navarro et al., 2019; Rajkumar, 2020 and Xiang et al., 2020).

Nurses have an important role in helping caregivers of children with ADHD to reduce their psychological distress and burden which increased as a result of covid 19 pandemic . Nurses can educate caregivers about new ways to reduce their children's hyperactivity and engaging them in more meaningfull activities . Nurses should participate in psycho-education programmers for caregivers and children with ADHD.

Moreover, nurses caring for ADHD children should take environmental and behavioral settings into consideration. Assessment of ADHD typically involves the comprehensive evaluation of information gathered from a number of sources, including parents/carers, family members, teachers, partners and colleagues, depending on the age of the patient. The nurse should accept the child as he is and approaching the child at his current level of functioning. She should not use baby talk nor direct him as to his chronological age; encourage him to express his thoughts or emotions and respond to him therapeutically. Use simple and direct instructions, and she may repeat her instructions more than once and at times, she may utilize visual aids or pictures in order for him to relate well; in educating the child, the lessons should only be brief in duration due to his short attention span. Implement scheduled routine every day. Make his routine predictable and something like ritualistic so that it will only be easy for him to grasp for his independent functioning (Belleza, 2021).

#### Significance of the study:

The prevalence rate of ADHD world wide estimated to be about 7.2% (129 million)children aged between 5-19 years. In U.S.A the prevalence rate of ADHD among children aged between 2-17 years estimated to be about 8.4% (5.4millon children).

According to a study of the prevalence of ADHD symptoms among a sample of Egyption school children, the prevalance of ADHD was 20.9 % of the studied sample. Moreover, ADHD showed a positive correlation with conduct disorder, learning problem, psychosomatic disorder, impulsivehyperactive disorder, and anxiety disorder.(EL saved et al., 2018; Centers of Disease Control and prevention, 2020 and Children and Adult with Attention Deficit Hyperactivity Disorder, 2020).

The covid 19 out break was associated with worsening of ADHD symptoms in the form of increase (slight or marked) in hyperactivity, irritability, and disruptive behavior in half of the children with ADHD. Covid 19 led to significant distress for the caregivers for children with ADHD. Further, due to more free time, fewer outdoor activities, these children are more prone to indulge in the use of screen media. However, in this unprecedented situation of lockdown it is not known how the children with ADHD and their caregivers are dealing with the child's hyperactivity. Therefore, it is very important to identify and manage problematic behaviors of the child during the lockdown, to reduce burden on their caregivers (Children and Uniecef India, 2020; Miranda, 2020 and Shah et al., 2019). Therefore, it became necessary to assess burden of care and psychological distress among caregivers of children with attention deficit hyperactivity disorder during covid 19.

#### Aim of the study:

This study aims to examine burden of care and psychological distress among caregivers of children with attention deficit hyperactivity disorder during covid 19.

#### **Research Questions:**

1. What is the burden of care among caregivers of children with ADHD?

- 2. What is the level of psychological distress among caregivers of children with ADHD?
- 3. Is there a relation between burden of care psychological distress among caregivers of children with ADHD?

#### **Subject and Methods:**

The subject and methods of the current study were designed

#### Research design:

A descriptive correlation design was be utilized to fulfill the aim of this study

#### **Research setting:**

The study was conducted at the outpatient clinics for children with ADHD, at Benha psychiatric mental health and Addiction hospital ,Qaluobia Governorate, which is afflitated to general secretraite. The in-patient wards in Benha psychiatric and mental health has 7 departments hospital, departments, 1 female department, emergency department and addiction department) with capacity of 219 beds serving the patient with psychiatric and mental disorder. The total nursing number is 225 nurses.

### Research subject:

#### Sample size:

A purposive sample from children with ADHD who aged from 6-18 years and free from any mental / psychological disabilities and their caregivers was taken from the above mentioned setting during six months

#### Sample technique:

A convenient sample of (120) caregivers was included from the above setting during the period of study.

#### **Tools of data collection:**

The data was collected using the following tools:

#### Tool I: Structured **Interview Questionnaire:**

It was developed by the researcher based on scientific review of literature, that will be consisted of three parts:-

Part one: Socio-demographic data of children: to elicit data about children's characteristic which includes age, sex, level of education.

Part two: Socio-demographic data of caregivers: which includes age, sex, degree of relation, level of education, job.

Part three: Knowledge of caregivers about ADHD: It was developed by the researchers to assess knowledge of caregivers about ADHD. The responses was indicated as correct, incorrect and don't know responses. Correct response =2, while incorrect response=1 and don't know response =0.

Knowledge of caregivers about ADHD score include the following:-

0 - 44 = Poor Knowledge

45 -55= Moderate Knowledge

56 -74 = Excellent Knowledge

Tool (II): The Zarit burden interview scale: This scale developed by (Zarit et al., 1985). It consist of 22 items which assessed on a five point likert scale ,ranging from 0=Never, • 1=Rarely 2=Sometimes frequently, 4=nearly always.

#### **Scoring system:-**

Item scores are added up to give a total score ranging from (0 to 88), with higher scores indicating greater burden. Interpretation of score include the following:-

21-40=mild burden of care.

41-60=moderate burden of care.

0-21=little or no burden of care.

61-88=Severe burden of care.

### Tool (III): Tool Three: Depression, **Anxiety and Stress Scales (DASS -21)**

This scale was originally developed by Lovibond & Lovibond, (1995). It is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. It was translated into Arabic version by the researcher. Each of three DASS-21 scales contains 7 items, items number (1, 2, 3, 4, 5,6, 7) to assess level of depression, Items number (8, 9, 10, 11, 12, 13,

14) to assess level of Anxiety and items number (15, 16, 17, 18,19, 20, 21) to assess level of stress. The scale is rated items scores are added up to give a total score ranging from (0 to 63), with higher scores indicates greater burden Interpretation of score include the following

- mild = 0-20.
- moderate =21-41.
- severe =42-63.

#### **Validity of tools:**

Arabic translation was done by research for tools of the study and tested for their translation. validity of tools was done by a group of five experts in psychiatric and mental health nursing field at faculty of nursing Benha university and Menofia university, to check the relevancy, clarity, comprehensiveness and applicability of the questions. According to their opinion, some modifications were done and the final form was developed. The modification in the Arabic form of the three tools modification of some words to give the right meaning of the phrases.

#### **Reliability of tools:**

Tool	Alpha Cronbach
ADHD	.871
Knowledge of	
Questionnaire	
The Zarit	.902
burden interview	
scale	
Depression,	.882
Anxiety and	
Stress Scale	

#### **Ethical consideration:**

An informed consent for participation in the study was taken from the caregivers after complete explanation of the purpose of the study. Before data collection, the participant was informed that the participation in the study is voluntary, and no name was included in the questionnaire sheet. They was given an opportunity to refuse to participate and they will be notified that they can be withdrawen at any time. Moreover they was assured that the information was remain confidential and will be used for the research purpose only.

#### **Pilot study:**

Before staring of data collection pilot study was carried out after the development of the tools and before embarking the field work on 10% of the total sample to ascertain the clarity and applicability of the study tools and identifying time needed for each caregivers to fill the tools and to find out any problems that might interfere with data collection. According to the result of pilot study no modification were done. Therefore, the pilot study sample was included in the total sample.

#### Field Work

Before starting data collection an official permissions were obtained from the director of the General Secretariat of Mental Health and the director of Benha Psychiatric / Mental Health Hospital and the other authorized personnel from various settings requesting their cooperation and permission to conduct the study. Next the researcher started the process of data collection, by including Parents fulfilling the inclusion to fill the questionnaire according to the following steps:

- The researcher started the process of data collection by introducing herself to the caregivers.
- An oral consent was obtained from each caregivers.
- A brief description for the purpose of the study and the type of questionnaires required to fill was given to each caregivers.
- Data collection was done through interviewing with the caregivers individually in out-patient psychiatric clinic for children.

• The researcher collected data from caregivers one day/ weeks every (Monday) from 9 Am to 1 PM. The researcher collected data from approximately (5) caregivers per day equal 20/month. Each interview lasted for 15-20 minutes, depending on the response of the caregivers. This process of data collection took 24 weeks from the beginning of January 2022 to the end of June 2022.

#### **Statistical analysis:**

Upon completion of data collection, the collected data were organized, tabulated; statistically analyzed by using an IBM personal computer with Statistical Package of Social Science (SPSS) version 22. Data were presented using descriptive statistics in form of number and percentage, mean, standard division, and Qualitative variables were comparing using the chi- square test. For quantitative data, person correlation coefficient (r) was used for correlation analysis and degree of significance was significant identified. Α statistically difference was considered if p-value was< 0.05. A highly statistically significant difference was considered if p-value was< 0.001.

#### **Results:**

**Table (1):** Shows that the Mean  $\pm$  SD of the studied caregiver's aged 35  $\pm$  9.77. Regarding sex, it revealed that majority (89.2%) of the studied caregivers were female. As for marital status, majority of them (92.5%) were married, (93.3%) are mother /father for those children. Also, three quarters of them (75%) have enough income, also about half (49.2%) of them have free governmental health supports. Moreover half of studied caregivers aged between 30<40, have intermediate educational level, and more

than half of them didn't work and live in urban area.

**Table (2):** Shows that more than two thirds (70.8%) of the children's age is from 6 -<10 year, most of them (83.3%) are boys, about two thirds of them (58.3%) had primary education, more than half of them(52.5%) were the first in the birth order of, most of them (85.8%, 93.3%) didn't have troubles in the relationship between parents and Male treatment any sibling.

**Figure (1):** Shows that about half (49.9%) of the studied caregiver had poor knowledge, one third (30.8%) of studied caregiver had moderate knowledge, and less than one quarter (20%) of studied caregiver had high knowledge level.

**Figure (2):** Shows that more than two thirds (65.8%) of the studied caregiver had moderate burden of care level, more than one quarter (26.2%) of studied caregiver had sever burden of care level, and less than one tenth (8%) of studied caregiver had mild burden of care level

**Figure (3):** Shows that more than half (55%) of the studied caregivers had moderate psychological distress more than one third (42.5%) of studied caregiver had severe psychological distress, and the minority (2.5%) of studied caregivers had mild psychological distress.

**Table (3):** Illustrates that, there is a statistically significant positive correlation between total burden of care and psychological distress subscales (p-value= 0.038). While there is a statistically significant negative correlation between total knowledge and total caregiver psychological distress subscales (p-value= .023). Also, there was statistically significant negative correlation between total knowledge and care giver total burden of care (p-value= .015).

Table (1): Percentage distribution of socio-demographic characteristics of the studied caregivers.

Socio-demographic characteristics (n=120).	No.	0/0
Age (years)	12.00	1
20<30	40	33.3
30 < 40	64	53.3
40 < 50	14	11.7
50 +	2	1.7
Mean ± SD	$35 \pm 9.77$	ļ.
Sex		
Male	13	10.8
Female	107	89.2
Marital status		1
Married	111	92.5
Widowed	3	2.5
Divorced	4	3.3
Separated	2	1.7
Educational level	·	
Illiterate	3	2.5
Read and write	4	3.3
Basic education	26	21.7
Intermediate	61	50.8
University education	23	19.2
Post graduate	3	2.5
Degree of relation to child		
Mother /Father	112	93.3
Sister/Brother	2	1.7
Uncle / Unte	6	5.0
Occupation		
Free work	52	43.3
Work	68	56.7
Income		
Not enough	90	20.8
Enough	25	75.0
Enough and save	5	4.16
Residence		
Rural	54	45.0
Urban	66	55.0
Source of family health services		
Through health insurance	19	15.8
Free governmental health support	59	49.2
Non-governmental health source	7	5.8
More than one source (from the above sources)	35	29.2

Table (2): Percentage distribution of socio-demographic characteristics of the studied children.

Socio-demographic characteristics (n=120)	No.	%					
Age (years)							
- 6-<10	85	70.8					
- 10 -<14	35	29.2					
$Mean \pm SD \qquad \qquad 8 \pm 5.24$							
Sex							
- Boys	100	83.3					
- Girls	20	16.7					
Educational level							
- illiterate	42	35.0					
- Primary Education	70	58.3					
- Preparatory Education	8	6.7					
Birth order of child							
- First	63	52.5					
- Second	47	39.2					
- Third	10	8.3					
Troubles in the relationship between parents							
-Yes	17	14.2					
-No	103	85.8					
Male treatment any sibling							
- Yes	8	6.7					
- No	112	93.3					

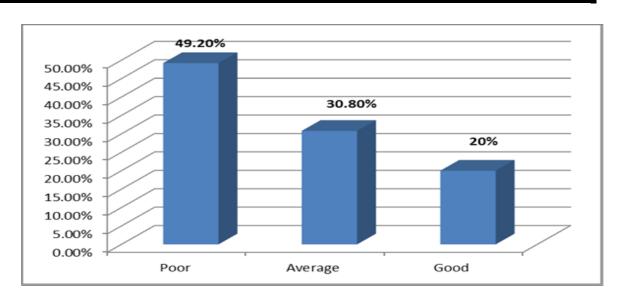


Figure (1): Total level of knowledge about ADHD among the studied caregiver (n=120).

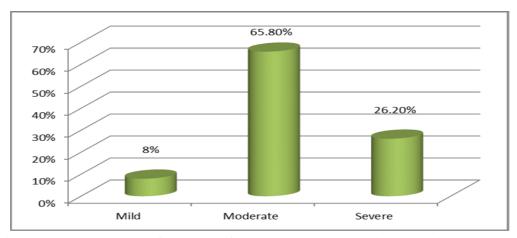


Figure (2): Total level of burden of care among the studied caregiver (n=120).

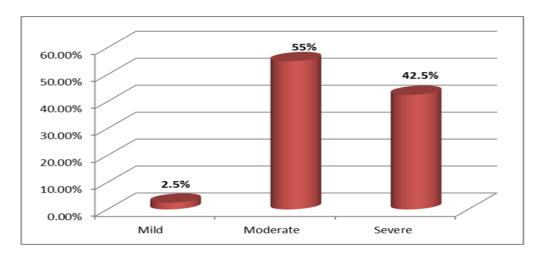


Figure (3): Total level of psychological Distress among the studied caregiver (n=120).

Table (3) correlation matrix between study variables (total knowledge, total burden of care and psychological distress subscales)

Study variables	Total knowledge		Total burden of care		Psychological distress subscales	
	r	P	r	P	r	P
Total			004	.015*	0.1	000*
knowledge	-	-	094	.013	01	.023*
Total burden of	004	.015*			100	0.00*
care	094	.013	-	_	.190	.038*
Total						
Psychological	01	.023*	.190	.038*	-	-
distress						

#### **Discussion**

This result was in consistent with (**shafik et al., 2021**), who conducted their study about "Caregivers burden and related factors in Iranian mothers of children with Attention-Deficit Hyperactivity Disorder" and showed that the age of the caregivers in their study ranged between 30 to 40 years.

This result was in consistent with (Adeosun et al., 2017), who conducted a study on "The burden on caregivers of children with attention-deficit hyperactivity disorder in Lagos Nigeria" and displayed that more than one third of their studied caregivers attained intermediate education.

This study findings supported by (Al-Balushi et al., 2019), who carried out their study about "Predictors of burden of care among caregivers of drug-naive children and adolescents with ADHD" and revealed that majority of studied caregivers weren't employed and live in urban areas. This result was in accordance with (Abou-Abdou et al., 2018) who conducted study on "Mindfulness Based Intervention Program for Mothers of Children with Attention Deficit Hyperactivity Disorder at Fayoum university hospital, Egypt" and reported that more than three quarter of them were housewives, and lived in urban areas.

This result was in agreement with (Shafik et al., 2021), who conducted their study on "Needs and health problems of family caregivers and their children with attention deficit hyperactivity disorder" and most caregivers were females .occupation about more than half of them were not working.

This result was same line with (Mostafavi et al., 2020), who conducted their study about "Caregivers burden and related factors in Iranian mothers of children with Attention-Deficit Hyperactivity Disorder" and found that the most of the caregivers were married.

This result was consistent with (Adeosun et al., 2017), who conducted a study on "The burden on caregivers of children with attention-deficit hyperactivity disorder in Lagos Nigeria" and displayed that majority of caregivers were mothers of children with ADHD.

This study finding supported by (Al-Balushi et al., 2019), who carried out their study about "Predictors of burden of care among caregivers of drug-naive children and adolescents with ADHD" and revealed that majority of studied caregivers had enough income.

This study finding supported by (**Abou-Abdou et al., 2018**) who conducted study on "Mindfulness based intervention program for mothers of children with attention deficit hyperactivity disorder" and revealed that majority of studied caregivers.

This result was supported by (Al-Balushi et al., 2019), who conducted a study about "Predictors of burden of care among caregivers of drug-naive children and adolescents with ADHD" and found that about two thirds of children their age ranged between 6 to 10 years.

This finding supported by ( **Abd El Moneam** et al., 2018), who carried out their study about "Evaluation of Psycho-Educational Intervention for Children Having Attention Deficit Hyperactivity Disorder and Their Parents" and showed that more in males about two thirds.

This result was congruent with (Fossati et al., 2019), who carried out their study about "Resilience as a moderator between objective and subjective burden among parents of children with ADHD" and founded that more than two thirds of them had Elementary education level.

This finding was similar to the study done by (**Shafik et al., 2021**), who showed that regarding rank of the child about half of them

arranged as a first order between siblings, regarding Level of education of children more than two thirds of them had study in the primary stage.

These study findings were consistent with (Bernabe & Mariano., 2019), who conducted their study about "Depression, anxiety, and caregivers burden among adult caregivers of Pediatric patients with neurodevelopmental dsorders" and showed that weren't troubles in the relationship between parents and Mal treatment any sibling.

This result was in agreement with (Alnakhli et al., 2020), who carried out their study about "Assessment of burden on Caregivers of Children with Attention Deficit- Hyperactivity Disorder in Al-Madinah, Saudi Arabia" and revealed that duration since diagnosis was one year or more among majority of them. Majority of them followed a management. History of having other children in the family with ADHD was reported among minority of children.

This result is accordance with (Mostafavi et al .,2020), who reported at their study "Caregiver burden and related factors in Iranian mothers of children with Attention-Deficit Hyperactivity Disorder" that majority of studied sample receiving a medication.

This result was accordance with (Adeosun et al., 2017), who revealed at their study that the most common subtype of ADHD among the children was combined, this result was in disagreement with (Al-Balushi et al., 2019), who indicated at their study Predictors of Burden of Care among Caregivers of Drug-Naive Children and Adolescents With ADHD" that about two thirds of sample have Hyperactive ADHD group

These findings were in the same line with **Shafik et al.**, (2021), who conducted a study about "Needs and Health Problems of Family Caregivers and Their Children with Attention Deficit Hyperactivity Disorder" and found that

about two fifths of the caregivers had poor knowledge regarding ADHD and more than half of them had average knowledge and minority of them had good knowledge. Moreover, this finding was supported by Lamichhane & Sharma, (2019), who carried out a study about "Knowledge on Children's Attention Deficit Hyperactivity Disorder among School Teachers in Chitwan" and revealed that more than two thirds had inadequate knowledge while about one third had adequate knowledge about ADHD.

These results were in accordance with Adeosun et al., (2017), who reported in their study that about one quarter of caregivers had sever burden of care, about two thirds of them had moderate burden and the minority of caregivers had little burden .Moreover ,this study findings were consistent with Bernabe &Mariano., (2019), who conducted their study about "Depression, Anxiety, and Caregivers Burden Among Adult Caregivers of Pediatric Patients with Neurodevelopmental Disorders" and showed that almost half of their studied caregivers had moderate level of burden.

Furthermore, these results were incongruent with Mostafavi et al., (2020), conducted a study about "Caregiver burden and related factors in Iranian mothers of children with Attention-Deficit Hyperactivity Disorder" and found that minority of caregivers had severe burden and about half of them had mild burden. In addition to that these findings were incongruent with Al-Balushi et al (2019), who conducted a study about "Predictors of Burden of Care among Caregivers of Drug-Naive Children and Adolescents With ADHD" and found that more than two thirds of studied sample had no burden.

This result was supported by **Alnakhli et al.**, (2020), who carried out their study about "Assessment of Burden on Caregivers of Children with Attention Deficit- Hyperactivity

Disorder in Al-Madinah, Saudi Arabia" and reported two thirds of the studied caregivers had moderate psychological distress, more than one third of the studied caregivers had severe psychological distress. These findings were inconsistent with **Abou-Abdou et al.**, (2018), who revealed at their study "Mindfulness Based Intervention Program for Mothers of Children with Attention Deficit Hyperactivity Disorder" that the majority of their studied sample had severe psychological distress.

These study findings supported by Abou-Abdou et al., (2018), who displayed at their "Mindfulness Based Intervention study Program for Mothers of Children with Attention Deficit Hyperactivity Disorder" that there was statistically significant association between level of caregivers' burden and total psychological distress. On the other hand these study findings were disagreement with Bernabe., & Mariano., (2019), who revealed at their study "Depression, Anxiety, and Caregiver Burden Among Adult Caregivers of Pediatric Patients with Neurodevelopmental Disorders" that there was no significant correlation between caregivers knowledge and total psychological distress.

These study findings consistent with **Ali et al., (2020),** who reported at their study "Psychological distress and life satisfaction in mothers of attention-deficit/ hyperactivity disorder children" that decrease in care giver knowledge about ADHD and decrease in burden of care lead to increase in psychological distress.

#### **Conclusion:**

There were more than two thirds of the studied caregivers had moderate level of burden of care, and more than half of the studied caregivers had moderate psychological distress, and half of the studied caregivers had poor knowledge, one third of studied caregiver had moderate knowledge, and less than one quarter of studied caregiver had high

knowledge level. Moreover, there was a statistically significant positive correlation between total burden of care and total psychological distress among studied caregivers, Furthermore, there was statistically significant negative correlation between total knowledge and total caregivers' psychological distress subscales, and there was a statistically significant negative correlation between total knowledge and caregivers' total burden of care

#### **Recommendations:**

-ADHD child and family - centered nursing care; and encouraging advocacy for the access and utilization of mental health services. Sharing any positive improvements in the behavior of ADHD children with their parents as an indicator that ADHD child is capable to change toward the best. This might have positive impact on the psychological wellbeing of the parents.

- Psychological education and guidance for caregiver using posters, course and workshops to increase parents 'awareness in parenting at behaving with their ADHD children. Teachers and educators of children with ADHD should empower parents with strategies to deal with disruptive behaviors of their child i.e., parent should be part any remedial intervention with ADHD child.
- Application of Psychological programs to minimize psychosocial disorder for more beneficence.
- More researches are needed on teaching and evaluating strategies for designed caring perspective on intervention to overcome psychological distress and burden of care and psychological

#### References:

Abd El Moneam, S., Abd El-Fattah, R., El-Boraie. A., and El-Etreby, R., (2018). Evaluation of Psycho-Educational Intervention for Children Having Attention Deficit Hyperactivity Disorder and Their

Parents, Journal of Nursing a nd Health Science. Volume 7, Issue 4, PP 15-24.

**Abou-Abdou, S., Soltan, R., Ali, A. and Abed Elmenem, H.** (2018). Mindfulness Based Intervention Program For Mothers Of Children With Attention Deficit Hyperactivity Disorder, Journal of Nursing and Health Science, Volume 7, Issue 5, PP 39-49.

Adeosun, I., Ogun, O., Adegbohun, A., Ijarogbe, G., and Fatiregun, O. (2017). The Burden on Caregivers of Children with Attention-deficit Hyperactivity Disorder in Lagos Nigeria: Prevalence and Correlates, Journal of Education, Society and Behavioural Science. 22(1): Pp 1-7.

Agarwal, N., Jain, P., Pathak, R., and Gupta, R. (2020). Telemedicine in india: A tool for transforming health care in the era of COVID-19 pandemic, J Educ Health Promot .2020;9: 190. Published online 2020 Jul 28 .doi:10.4103/jehp.jehp\_472\_20 PMCID: PMC7482629.

Al-Balushi, N., Al-Alawi, M., Al Shekaili, Al-Balushi, M., Mirza, H., Al-Huseini, S., Panchatcharam, M., Al-Sibani, N., Cucchi, A., and Al-Adawi, S. (2019). Predictors of Burden of Care among Caregivers of Drug-Naive Children and Adolescents With ADHD: A Cross-Sectional Correlative Study From Muscat, Oman, Journal of Attention Disorders, Vol. 23(5) 517–525.

Ali, N., Hejair, R., Alekri, E., Jahrami, H.(2020). Psychological distress and life satisfaction in mothers of attention-deficit/hyperactivity disorder children, International Journal of Medical Science and Public Health, Vol 9 | Issue 9.

Alnakhli, J., Almutari, S., and Al-Dubai, A. (2020). Assessment of Burden on Caregivers of Children with Attention Deficit-Hyperactivity Disorder in Al-Madinah, Saudi Arabia, International Journal of Medical Research & Health Sciences, 9(11): Pp10-17.

**Belleza, M. (2021).** Attention Deficit Hyperactivity Disorder, last Updated on February 11, 2021, available at https://nurseslabs.com/attention-deficit-hyperactivity-disorder/Accessed at (10/7/2021

**Bernabe, D., Mariano, P.(2019).** Depression, Anxiety, and Caregiver BurdenAmong Adult Caregivers of Pediatric Patients with Neurodevelopmental Disorders: A Descriptive Cross-Sectional Study

Centers of Disease Control and prevention(CDC), (2020). Data and statistics on children's mental health.available at: https://www.cdc.gov/childrensmentalhealth/d ata.html, Acessed at (5/7/ 2021)

Children and Unicef India, (2020). Psychosocial support for children during COVID-19: A manual for parents and caregivers Available at: https://www.unicef.org/india/reports/psychosocial-support-children-during-covid-19,Accessed at (21/5/2020)

Children and adults with attention-deficit /hyperactivity disorder (CHADD), (2020). General Prevalence of ADHD, available at:https://chadd.org/about-adhd/general-prevalence, Acessed at (9/7/ 2021).

Cortese, S., Asherson, P., and Simonoff, E. (2020). How can ADHD be managed during the COVID-19 pandemic? ,Lancet Child Adolesc Health; 4(6): 412-414

EL-Sayed, M., Mahmoud eL-mogy, M. Hassan ali, M., Mohamed M., and Ghowinam, M. (2018). Prevalence of ADHD Symptoms among a Sample of Egyptian School Age Children, Article 79, Volume 86, June, June 2018, Page 1719-1725 XMLPDF (417.22 K). The Departments of Pediatrics and Psychiatry Medicine, Faculty of Medicine, Al-Azhar University, Cairo, Egypt

Fossati, M., Negri, L., Fianco, A., Cocchi, G., Molteni, M., Fave, D. (2019). Resilience as a moderator between objective and

subjective burden among parents of children with ADHD, DOI: 10.1016/j.apnu.2019.11.001.

**Klein, A. (2020).** How to manage ADHD during COVID-19 pandemic.Available at https;//www.medical new today.com.Accessed 27-3-2021at 9.pm.

Lamichhane, S., and Sharma, P. (2019). Knowledge on Children's Attention Deficit Hyperactivity Disorder among School Teachers in Chitwan, 5(1):Pp1-11.

Lillo-Navarro, C., Montilla-Herrador, J., Escolar-Reina, P., Oliveira-Sousa, S., García-Vidal, J., and Medina-Mirapeix, F.(2019). Factors associated with parents' adherence to different types of exercises in home programs for children with disabilities. Journal of Clinical Medicine, 8(4):456. doi: 10.3390/jcm8040456.

Liu, J., Bao, Y., Huang, X., Shi ,J., and Lu, L. (2020). Mental health considerations for children quarantined because of COVID-19. Lancet. Child Adolesc. Health.;4(5):347–349. doi: 10.1016/S2352-4642(20)30096-

**Lovibond, S., and Lovibond, P. (1995).**Manual for the Depression Anxiety &Stress Scales (2<sup>nd</sup> Ed)Sydney: Psychology Foundation ;Australian Physiotherapy Association. Published by Elsevier Inc.Volume56,Issue 3,P.204.

Miranda, A., Marco, R., and Grau ,D. (2020). Parenting stress in families of children with attention-deficit/hyperactivity disorder, the impact of ADHD subtype and oppositional defiant disorder comorbidity [Internet] Bingley, West Yorkshire, UK: Emerald Group Publishing Limited; 2007,cited 2020 Jun 16

Mostafavi, M., Areshtanab Namdar, H., Ebrahimi, H., Vahidi, M., Amiri, S., and Norouzi S. (2020). Caregiver burden and related factors in Iranian mothers of children with Attention-Deficit Hyperactivity Disorder, Nursing and Midwifery Studies Pp 194-156.

National Institute of Mental Health (NIMH), (2019). Attention deficit

hyperactivity disorder in children. Available at:https://www.nimh.nih.gov/health/topics/att ention-deficit-hyperactivity-disorder-

adhd/#part\_145444.Accessed at 27-7-2021

**Pahlavanzadeh, S., Mousavi, S. and Maghsoudi, J.(2018).** Exploring the Needs of Family Caregivers of Children with Attention Deficit Hyperactivity Disorder: A Qualitative Study.2018

**Rajkumar, R. (2020).** COVID-19 and mental health, A review of the existing literature, Asian Journal of Psychiatry, 2020;52 doi: 0.1016/j.ajp.2020.102066.

Shah, R., Chakrabarti, S., Sharma, A., Grover, S., Sachdeva, D., and Avasthi, A. (2019). Participating from homes and offices: proof-of-concept study of multi-point videoconferencing to deliver group parent intervention for training attentiondeficit/hyperactivity disorder. Asian Psychiatr ;41:20-22

Shafik, A., El-Afandy, M., Allam, N., (2021). Needs and Health Problems of Family CareGivers and Their Children with Attention Deficit Hyperacivity Disorder, Journal of Nursing and Health Science, Volume 10, Issue 1, PP 07-23

Xiang, M., Zhang, Z., and Kuwahara, K. (2020). Impact of COVID-19 pandemic on children and adolescents' lifestyle behavior larger than expected, Prog Cardiovasc Dis, S0033-0620(20)30096-7,Retrieved at:https://doi.org/10.1016/j.pcad.2020.04.013 Accessed at 13-4-2020

Zarit, H., Orr, K., and Zarit, M. (1985). The hidden victims of Alzheimer's disease: Families under stress. New York: New York Uni-versity press.

# عبء الرعاية والمعاناة النفسية بين مقدمي الرعاية للأطفال الذين يعانون من اضطراب فرط الحركة وتشتت الانتباه أثناء جائحة كوفيد 19

### مريم صدقى عبدالمسيح عبدالله - نجلاء فتحي العطار - إيمان نبوى أبوزيد

إن جائحة كوفيد -19 تتسبب في عدد من التحديات للعديد من الأشخاص، لا سيما المصابين باضطراب فرط الحركة وتشتت الانتباه ومقدمي الرعاية لهم الذين قد يكونون عرضة للإجهاد والتوتر بسبب الوباء وبالتالي يعانون من مشاكل سلوكية متزايدة. وقد تكون العزلة الاجتماعية ضارة بشكل خاص للأطفال المصابين باضطراب فرط الحركة وتشتت الانتباه . يمكن أن يؤدي التنقل في الحياة من داخل المنزل إلى تغييرات كبيرة في حياة الطفل اليومية. لذلك هدفت هذه الدراسة إلى إختبار عبء الرعاية والمعاناة النفسية بين مقدمي الرعاية للأطفال الذين يعانون من اضطراب فرط الحركة وتشتت الانتباه أثناء كوفيد 19 وقد اجريت هذه الدراسة في العيادات الخارجية للأطفال الذين يعانون من اضطراب فرط الحركة وتشتت الانتباه بمستشفى بنها للصحة النفسية والعقلية بمحافظة القليوبية . حيث كشفت النتائج عن تطبيق نموذج تعزيز الصحة له تاثير ايجابي على معلومات ونمط حياة مقدمي الرعاية الذين لديهم اطفال فرط الحركة وتشتت الانتباه .كما اوصت الدراسة انه ينبغي توجيه جهود إضافية نحو الأباء والأمهات الذين لديهم أطفال يعانون من اضطراب نقص الانتباه وفرط الحركة لأنهم مجبرون على التعامل مع سلوك الطفل المخل وعواقبه . وقد تشمل هذه الجهود ، على سبيل المثال لا الحصر المشورة الأسرية . تدعم برامج التدريب وجلسات المجموعات والنقاشات.

NSBU 1092