

# Effectivity of Online Stress Management Training for Mothers of Children with ADHD in terms of Cognitive Knowledge

Fitri Lestari Issom<sup>1</sup>, Iriani Indri Hapsari<sup>1</sup>, Adhissa Qonita<sup>1</sup>

<sup>1</sup>Faculty of education Psychology, University of Jakarta, Jakarta, Indonesia

Fitrllestarii@unj.ac.id, Iriani@unj.ac.id, AdhissaQonita@unj.ac.id

**Keywords:** ADHD, Stress management, Mother, Parenting Stress

**Abstract:** Parents with children diagnosed with Attention Deficit Hyperactivity Disorder or ADHD are vulnerable to parenting stress. Mothers of children with ADHD experience more parenting stress because they feel they have failed in their role in parenting. There are various concerns that mothers of children with ADHD have that can trigger parenting stress, that also can have a negative association with both parents and ADHD children themselves. An intervention is needed to prevent the negative impacts of parenting stress on mothers with ADHD children. This study aims to see the effectiveness of online stress management training in terms of cognitive knowledge for mothers of children with ADHD. The research method is a quasi-experimental study that is measured through cognitive pre/post-test. The intervention provided stress management training in three days. The respondents of this study were 10 mothers of ADHD children who had a moderate and high level of parenting stress. The results showed that there was no difference in cognitive knowledge scores. The result of the T-Test analysis shows the significance value was 0.102 (>0.05). Therefore, online stress management training is less effective in increasing cognitive knowledge for mothers of children with ADHD. This result is influenced by the education level of the participant and the participant often gets information related to ADHD materials from a group of parents with ADHD children. However, the qualitative data shows additional information that shows that they increased information related to managing stress instead of ADHD.

## 1 INTRODUCTION

Attention Deficit and Hyperactivity Disorder (ADHD) is a developmental disorder that quite often occurs in children and adolescents, moreover, this disorder is experienced by around 63 million children and adolescents worldwide (Polanczyk, Salum, Sugaya, Caye & Rohde, 2015). It was also found that 3-7% of children of school age were diagnosed with ADHD (*American Psychiatric Association*, 2000 in Berkeley, 2006). ADHD fundamentally is equal to a developmental disorder with characteristics of inattention, perseverance, easily distracted or experienced distraction, difficulty in controlling movement and in carrying out regulation when compared to children in general (Berkeley, 2006). With the symptoms shown, ADHD is a chronic condition that later affects individual functioning (*American Psychiatric Association*, 2013).

In children and adolescents with a diagnosis of ADHD, there are various problems that arise due to the appearance of symptoms of both inattention, hyperactivity, and impulsivity which are one of the main characteristics of ADHD (*American Psychiatric Association*, 2013). The symptoms shown will affect various *settings* of their own lives both at home and at school. According to Sciberras (2016, in Leitch et al., 2019), ADHD conditions are associated with health and behavioral issues including behavioral problems, anxiety, and depression for both children and parents. The research of Leitch et al. (2019) mentioned as it happens, parents with ADHD children basically love their child, but on the other hand, they may behold in disfavor for their child because the problems that arise can make feelings of hopelessness, sadness, guilt, anger, helplessness, frustration, isolation, and depression that they end up experiencing. Currently, there are a lot of studies that find out that parents with ADHD children experience more stress in their role in parenting

compared to other parents, one of which is proven by Firmin (in Karimzadeh et al., 2020) which confirms that they will experience stress more easily. Stress itself is equally interpreted as pressure or demand placed on a person to adapt and adjust (Nevid, Rathus, and Greene, 2014). The issue of stress occurs in various circles, including them (parents with ADHD children). Having a child with their own disorder or disability is often a stress factor in the family environment.

The existence of various sources of stress in parents with children who have a diagnosis of ADHD makes them may experience stress in parenting with ADHD. It also affects the system in a family, where they show higher levels of parenting stress compared to a child with a diagnosis of autism and has poor health conditions such as HIV and asthma (in Theule, Wiener, Tannock & Jenkins, 2013). Parenting stress alone is explained as anxiety and tension that transcends boundaries and is specifically related to the role of parents and the interaction of parents with the child (Abidin, 1995). The parenting stress model proposed by Abidin (1995) also suggests that it pushes toward the malfunctioning of parental care of the child, essentially explaining that it will give rise to a mismatch of their responses in the face of conflicts with their children in this study are children with ADHD.

Families with ADHD children can interfere with family functioning, marital relationships, and parent-child relationships. This problem can lead to negative emotional expression, more dispute communication, reduced efficacy and quality of life, also psychopathological parental, as well as increased levels of parenting stress and maternal psychological stress (Leitch et al., 2019). Parenting stress itself is experienced by the father and mother, however, according to Rabiner (2016) in general, mothers feel more parenting stress than fathers because they feel that they have failed in their role in parenting. In parenting with ADHD children generally, mothers interact more with the child, which makes them more impressionable with the circumstances indicated by the child with this condition. Mothers with ADHD children themselves are expected to be able to optimize child welfare by conditioning the existing parent-child relationship and their environment (Hapsari et al., 2020).

High levels of parenting stress are associated with an increase in the formation of psychopathological behaviors in parenting (Kazdin, in Leitch et al., 2019). Mothers of children with

ADHD who have high parenting stress tend to see a lot of negative sides or weaknesses of themselves so it affects not only the mother but the family and child with their own ADHD diagnosis. The parenting stress experienced is also associated with various negative circumstances for both the child with ADHD and his parents, where this can deteriorate the symptoms of ADHD in the child, decrease the intervention response that the child gets, decrease the quality of the relationship between parent and child also decrease the psychological well-being of the parents themselves (Theule et al., 2013).

In general, treatment to reduce the symptoms experienced by children and adolescents with ADHD diagnosis has been done quite a lot. However, on the other hand, parents, especially mothers who interact directly with children, have not done much, especially interventions that are specifically designed to deal with the parenting stress experienced by parents with ADHD children (Treacy, Tripp & Baird, 2005). Whereas interventions targeted at parenting stress tend to fulfill the mental health of parents, especially mothers who actually have a big role in parenting in children with ADHD (Theule et al., 2013). This shows that the stress experienced by mothers with adolescents who have a diagnosis of ADHD is fairly high so they need to be helped in order to prevent them from feeling like they have failed to cope with the stress they feel. It is necessary to make some collaboration with mothers to encourage them to prioritize their self-care and search for their social support appropriately (Rabiner, 2016). Therefore, several interventions regarding parenting stress are important for mothers with ADHD which can help them to be better and do parenting optimally so their children can have better development.

This study was conducted to provide stress management training to reduce the level of parenting stress experienced by mothers with children who have a diagnosis of ADHD. In this study, it focused on measuring maternal stress management training with ADHD children, as measured by their cognitive skills. Meanwhile, the measurement of stress levels will be discussed in another article. This study used quasi experiential as measured through cognitive *pre-post tests* before and after the intervention. The intervention provided was in the form of three days of stress management training. The goal is expected to help increase cognitive awareness about parenting stress in mothers with ADHD children, especially during the *Covid-19* pandemic. Due to the limited face-to-

face activities and the need for the essential use of technology, the interventions that will be carried out are given through online media.

## 2 RESEARCH METHODS

The purpose of this study was to determine the effectiveness of stress management training for mothers who have children with ADHD through online media during the Covid-19 pandemic. This study uses quantitative research methods with pre-post test experimental methods where this method looks at whether there are differences in cognitive understanding related to ADHD and stress management possessed by participants before and after being given parenting stress management training interventions related to parenting by mothers who have children with ADHD. This research has obtained an ethics permit with number 060/2022 (ETIK/KPIN (Konsorsium Psikologi Ilmiah Nusantara)).

### Participant

The respondents in this study were mothers of children with ADHD whose domiciles were in various regions in Indonesia also who were members of the Teman ADHD (KITA) community. Initially, there were 90 mothers who registered, but as a condition of initial screening of 51 mothers who filled out the parenting stress level measuring instrument parenting stress in parents with special needs who adopted from Daulany & Hadjam (2020) through the google form. Out of 51 mothers, it was found that 6 people had low-stress levels and could not attend the training, so there were only 45 mothers who met the initial participant criteria where there were 36 mothers who had middle-stress levels and 9 mothers who had high-stress levels. In its implementation, 30 mothers with ADHD children were invited to take part in a series of training provided. However, in its implementation, there were only 10 mothers who committed to take part in 3 sessions of training for 3 consecutive weeks.

### Intervention

The intervention provided is in the form of stress management training which is given online through the Zoom Conference. Training is given for three days and will be held every Saturday for three

consecutive weeks on August 14, 21, and 28 of 2022. The training on stress management of mother-care with children with ADHD was compiled by a research team based on an analysis of the needs of the ADHD community (KITA). Training is prepared by paying attention to the literature related to stress models from Lazarus (1993) and paying attention to how a person can carry out the coping stress mechanism proposed by Fred M. Rothbaum (1980), namely primary control and secondary control. From the literature review and needs analysis, the research team designed training with material related to general knowledge about ADHD and parenting stress as well as how to overcome/cope with parenting stress both in terms of primary control and secondary control. The material related to stress coping provided is to understand and try directly the concepts of self-awareness, self-acceptance, forgiveness, positive thinking, doing productive, and relaxation. During the training, many learning methods were used, including providing material, discussing, filling out worksheets according to the material being discussed, and sharing feelings based on daily experiences.

### Measures

The cognitive measuring instruments used in this study were designed by the research team themselves. Cognitive measuring instruments are designed to refer to the material provided regarding ADHD, parenting stress, and coping with parenting stress. Questions are arranged in ten multiple choice questions and two qualitative questions through short answers. Each of the five questions was given related to ADHD material and parenting stress, and two short answers asking related to the intervention provided. Questions are given through the google form given pre and post the training. After being filled in by the mother (pre and post training) the results will be analyzed statistically through the Wilcoxon Signed Rank Test which is used to see the effectiveness between methods when the normality test is met in non-parametric types.

Table 1: List of Cognitive Measuring Instruments Questions.

No	Material/ Type	Question
1.	ADHD/ Multiple Choice	ADHD has three main characteristics, namely...

2		Symptoms of inattention and hyperactivity-impulsivity need to occur consistently in ... Different places.
3		Here are the symptoms of inattention in children with ADHD, except...
4		Treatments/interventions that can be given to children with ADHD include...
5		What should parents not do when they find that their child exhibits ADHD characteristics?
6	Parenting Stress/ Multiple Choice	What is stress in psychology?
7		Some of the duties of parents are below, except...
8		What is meant by parenting stress is...
9		How do stress and health related?
10		Signs of people experiencing stress in parenting, except...
11	Intervention/ Coping Stress/Essay	What are some forms of stress management that moms know about?
12		What is the appropriate process/sequence for

performing such stress management?

### 3 RESULT

Until the third session as the final session of the study, there were 10 participants who took part in the training until it was completed, and the data could be processed. The following is an overview of the participants of the research experimental group:

Table 2: Overview Participants of The Research

	Picture	Frequency	Percentage (%)
<b>Age of Participants</b>	31 - 35	5	50
	36 - 40	2	20
	41 - 45	1	10
	46 - 50	2	20
<b>Total</b>		<b>10</b>	<b>100</b>
<b>Education Level</b>	S1	6	60
	S2	4	40
<b>Total</b>		<b>10</b>	<b>100</b>
<b>Work</b>	Doctor	1	10
	Housewives	6	60
	PNS	3	30
<b>Total</b>		<b>10</b>	<b>100</b>
<b>Number of Children</b>	1 Children	4	40
	2 Children	6	60
<b>Total</b>		<b>10</b>	<b>100</b>

<b>Children's Age</b>	Under 10 years old	9	90
	Over 10 years old	1	10
<b>Total</b>		<b>10</b>	<b>100</b>
<b>Children's Education Level</b>	Not Yet School	1	10
	Kindergarten	1	10
	Elementary School	7	70
	Junior High School	1	10
	<b>Total</b>	<b>10</b>	<b>100</b>
<b>Comorbid with Other Disorders</b>	Has Comorbid	3	30
	No Comorbid	7	70
<b>Total</b>		<b>10</b>	<b>100</b>

The Wilcoxon Signed Ranks Test is carried out by comparing pre-test and post-test values in 1 method. The data is considered to have a difference if it qualifies the p-value < the  $\alpha$  value (0.05). This data test uses a non-parametric data test where the number of samples does not have a minimum sample limit. The non-parametric T-test was performed using the Wilcoxon Signed Ranks Test.

Table 3: Wilcoxon Signed Ranks Test Result

<b>Test Statistics<sup>a</sup></b>	
	Post-Cognitive Test – Pre-Cognitive Test
Z	-1,633 <sup>b</sup>

Asymp. Sig. (2-tailed) ,102

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

It can be concluded that the p-value for looking at the pre-test and post-test values of stress understanding is equal to 0.102 and is greater than the alpha value (0.05). This means that the data obtained is insignificant. The conclusion is that  $H_0$  is accepted, and  $H_a$  is rejected which means there is no difference in cognitive knowledge about parenting stress and coping before and after stress management training

Table 4: Cognitive Score Improvement Data

	Freq- uency	Percent	Valid Percent	Cumulat ive Percent
Valid				
Increased Stress Relief	3	30,0	33,3	33,3
No Change in Understanding Stress	6	60,0	66,7	100,0
Total	9	90,0	100,0	
Missing System	1	10,0		
Total	10	100,0		

From a total of 9 people, 3 people (33.3%) experienced an increased understanding of stress after being given stress management training and 6 people (66.7%) did not experience a change in stress understanding after being given stress management training, 1 person in this group could not process the data because the data obtained experienced an error because the participants did not write their names in the pre-test results taken.

## 4 DISCUSSION

When viewed from demographic data, each group has the most participants with an age range of 31-35 years, has a minimum high school education and the highest is at the S2 level, the most participating professions are as housewives and the number of children owned is an average of 1-2 children. Children with ADHD are in the age range of 5 years to more than 10 years with education levels ranging from kindergarten to junior high school. Most children with ADHD do not have comorbidities with other disorders, but some children have other comorbidities such as autism, learning disorders, etc.

In research, the level of understanding of the theory given by providing cognitive pre-tests and post-tests related to the material is measured. The results obtained that there was no significant difference between the knowledge possessed by the participants before and after the training was given. This slightly less shows the effectiveness of training in the cognitive knowledge of participants. This is related to the level of education of participants who are already quite good, namely in strata 1 and strata 2, plus participants have also joined the parent group with ADHD children so they already know and participate in various sessions related to ADHD. This makes the participants' pre-test scores quite high or as many as 6 participants did not experience changes in cognitive knowledge, only 3 participants experienced an increase in knowledge.

On the other hand, there is an increase in knowledge related to parenting stress, especially in the short fill-in sheet which becomes qualitative data, where some mothers who previously wrote down do not know what needs to be done and how the process/sequence for parenting stress management or just answer with 'me time' now better understand there are many other ways such as various sessions given.

The result of this study qualitatively shows that basically there are differences in knowledge regarding coping stress that they can do when experiencing parenting stress. Therefore, the questions about coping stress are using short answers so they cannot be processed quantitatively. For future research it hoped that more provide item format so they can better describe the actual knowledge increased by the mother with ADHD children.

## REFERENCES

- Abidin, R., Flens, J. R., & Austin, W. G. (2006). The Parenting Stress Index. In R. P. Archer (Ed.), *Forensic uses of clinical assessment instruments* (pp. 297–328). Lawrence Erlbaum Associates Publishers.
- Hapsari, I. I., Iskandarsyah, A., Joefiani, P., & Siregar, J. R. (2020). Parents' Perceptions of Subjective Well-Being in Children with ADHD. *Journal of Psychology and Instruction*, 4(2), 44-51.
- Karimzadeh, M., Koolae, K. A., Davoodi, H. & Heidari, H. 2020. Experience and Worries in Mothers with Children Suffering from ADHD: A Grounded Theory Study. *Caspian Journal of Pediatrics*, 6 (1), 390-8.
- Leitch, S., Sciberras, E., Post, B., Gerner, B., Rinehart, N., Nicholson, J. M., & Evans, S. (2019). Experience of stress in parents of children with ADHD: A qualitative study. *International journal of qualitative studies on health and well-being*, 14(1), 1690091.
- Polanczyk G. V., Salum G. A., Sugaya L. S., Caye A. & Rohde L. A. 2015. Annual Research Review: A Meta-Analysis of the Worldwide Prevalence of Mental Disorders in Children and Adolescents. *Journal of Child Psychology and Psychiatry*, 56(3), 345–365.
- Rabiner, D. (2016). The Stress on Parents of Raising a Teen with ADHD-Moms and Dads Differ. *Journal of Abnormal Child Psychology*. DOI, 10, 1007.
- Theule, J., Wiener, J., Tannock, R., & Jenkins, J. M. (2013). Parenting stress in families of children with ADHD: A meta-analysis. *Journal of emotional and behavioral disorders*, 21(1), 3-17.