

## Relationship Between School-Age Abilities in Online Learning with Stress Levels of Parent During The Covid-19 Pandemic

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### Abstract

*Purpose:* Knowing the relationship between abilities at the developmental stage of school-aged children in online learning and levels stress of parents during the Covid-19 pandemic.

*Methodology:* This research used quantitative analysis through cross sectional approach. Data were collected by survey online link questionnaire approximately 3 weeks. This study examined data from parents with at child 6-12 years of age and educated their children in online learning due to COVID-19 Pandemic. The final sample included 126 parents in Madiun City. Data analysis used chi square with  $\alpha = 0.05$ .

*Results:* The study showed that most parents experienced moderate stress levels as many as 84 respondents (66.7%). The study also showed that there were 52 respondents (66.7%) who were able to follow the online learning process with moderate stress to their parents. Statistical result shows that there is a relationship between ability of school-aged children in online learning to the stress level of parents with p value = 0.002 ( $< 0.05$ ). It explained that ability of school aged children can increase the stress levels of parents.

*Conclusion:* The Covid 19 pandemic has an impact on the learning process of school age children. Online learning needed an additional role for parents to teach children at home. The ability of school-aged children in online learning affected stress levels of parents. Therefore, intervention for mental health in parents is needed to remain balanced an additional role during COVID-19.

### Introduction Section

The 2019 Coronavirus (COVID-19) disease outbreak was first reported in Wuhan, China so that it was later reported to have spread throughout the world and resulted in a global pandemic. Since August 2020, more than 216 countries have reported the spread of the corona virus. Several countries have been forced to implement quarantine and cause a number of their citizens to be isolated. The quarantine resulted in changes to daily activities in the global community, especially school activities which were considered to have the potential for spreading the virus. Changes that occur suddenly in terms of closing educational and learning institutions create problems for developing children and the environment that affects children's development (Shah et al. 2020) (Zhang and Ma 2020).

Approximately more than 2.2 billion children in the world constitute 28% of the world's population. Covid 19 has affected the lives of children around the world. The closure of schools, educational institutions, children's playgrounds is carried out in an effort to prevent the risk of infection transmitted due to Covid-19. This situation can cause problems for children and parents, namely stress, anxiety, and feelings of helplessness in all things. This impact is influenced by developmental age, educational status, special needs, previous mental health conditions, living below the poverty line, and the quarantine applied to prevent infection. Another impact that can be caused to children aged 6-18 years is fear of infected family members (Singh et al. 2020)(Ying et al. 2020).

Coronavirus 2019 were affecting all aspects of life around the world. Isolation, contact restrictions and economic shutdowns force changes in the aspects of the psychosocial environment that affect a country. This situation affects children, youth, and their families in extraordinary ways. Kindergarten schools were closed, restrictions on contact and leaving the house to meet leisure time were canceled. Parents support children to study from home and at the same time parents also have to work from home. Support from outside the family and environmental support began to decline. Apart from worries and anxieties related to COVID-19, the economic situation has deteriorated with high and increasing numbers of unemployment affecting the whole country. This puts a lot of stress on children, adolescents, and families, causing difficulties, mental health problems, and

violence. During the first phase of the COVID-19 outbreak in China, 54% of respondents had moderate to severe mental health problems with frequent signs of depression and anxiety. Certain crises impose different burdens on children (Fegert et al. 2020).

The Covid 19 pandemic in an impact on school students to experience stress, anxiety and depression because the number of people infected with Covid surpassed the 2003 Sars CoV epidemic. The existence of uncertainty in the learning system and academic progress could negatively impact students during the pandemic. This impact results in education authorities needing to develop online-based learning to be able to deliver learning activities. Online platforms can also provide networks for people who waste their time during a pandemic (Wang et al. 2020).

The Covid-19 pandemic has caused families to reorganize their daily lives due to the changes that have occurred. The closure of schools resulted in children having to go to school from home. Parents also have the pressure to be able to work from home and have to send their children home at the same time. Parents who need to keep children safe at home are a tough challenge for parents during the quarantine period. Changes in activities and actions taken during the Covid pandemic create uncertainty and affect feelings of security, triggering symptoms of anxiety and parental self-control. During the quarantine period, the role of parents is required to carry out multiple roles as managers of multiple tasks, increase the risk of conflict due to multiple roles, balance roles, this aspect can have a negative impact on the psychological health of parents (Fegert et al. 2020)(Cusinato et al. 2020).

During the Covid-19 Pandemic, a child was required to carry out school activities through online learning (online). Online learning is learning that aims to continue to get learning interactions through the use of the internet as a communication intermediary with easy access, speed, and connection of communication. Online learning media can be through the use of applications such as google classroom, zoom, whatsapp to support the implementation of online learning. This media can be used remotely which connects students with learning resources to be able to communicate, interact and collaborate (Sadikin and Hamidah 2020).

The purpose of the current study was to describe the relationship between ability of school-aged children with stress levels of parents. Hypothesized that ability of school-aged children following online learning would be associated with stress levels of parents. We also predicted that the ability of school-aged children with low capability to follow online learning would be increased stress levels of parents.

## Methodology

This is a study aimed at describing the relationship of capability aged school with the stress levels of parents during covid-19 pandemic, based on the view of parents. The type of research is a quantitative research analytic study design with a cross sectional approaches. The independent variable in this study is the ability of school-age children to take part in online learning and the dependent variable in this study is the stress level of parents who accompany school-age children's learning during the Covid-19 pandemic.

Parents with aged 20 years old or older with a child among 6 – 12 years old were invited to participate in the study and we were sent an online survey link. The survey was available from July, 2020 to August 2020. The final sample included 126 parents in Madiun City. The instrument to determine children's abilities using 8 question items consisting of the abilities of school age children in their development stage. The instrument to determine the level of stress of parents using the PSS (Perceived Stress Scale) instrument.

## Research Result

Table 1. Characteristic of participants

Variabel	F	%
<b>Age</b>		
20- 35 years old	73	57,9 %
36-50 years old	53	42,1 %

**Parents**

Father	14	11,1 %
Mother	112	88,9 %

Based on the table above, it can be seen that the majority of respondents are aged between 20 - 35 years as many as 73 respondents (57.9%). While the role of parents is mostly mothers as many as 112 respondents (88.9%).

Table 2. Specific character

Variable	F	%
<b>Parent Education</b>		
High School graduate	49	38,9 %
College	77	61,1 %
<b>Employment Status</b>		
Employed	71	56,3 %
Unemployed	55	43,7 %
<b>Salary</b>		
< 2 million	32	25,4 %
2 million- 5 million	51	40,5 %
> 5 million	43	34,1 %

Based on table 2 it can be seen that most of the respondents' education was taking college as many as 77 respondents (61.1%). Most of the respondents were working as many as 71 respondents (56.3%). Most of the respondents have an income in the range of 2 million - 5 million as many as 51 respondents (40.5%)

Table 3. Cross tabulation between the abilities of school-aged children and the stress levels of parents during the Covid-19 pandemic in July to August 2020

Ability of Aged School children during online learning	Stress levels of Parents						Total	%
	Mild Stress		Moderate Stress		Severe Stress			
	n	%	n	%	n	%		
Capable	21	26,9 %	52	66,7 %	5	6,4 %	78	61,9 %
less Capable	4	8,3 %	32	66,7 %	12	25 %	48	38,1 %
Total	25	19,8 %	84	66,7 %	17	13,5 %	126	100 %
p- value	0,002							

Based on table 3, it is known that there are 52 respondents (66.7%) who were capable to take part in the online learning process with moderate stress on their parents. In addition, there were 32 respondents (66.7%) who were less capable to follow the online learning process with moderate parental stress levels. In determining the relationship between the ability of school-age children with the stress level of parents using the Chi Square test. Based on the results of the chi square test, it was obtained p value = 0.002 ( <0.05), so it can be said that there is a relationship between the ability of school-aged children and the stress level of parents during the Covid-19 pandemic.

**Discussion**

In the study conducted to determine relationship between the ability of aged school children with the stress levels of parents, it was determined that there was a statistically significant difference (p<0.05). Based on the results of the study showed that most parents experienced moderate stress levels as many as 84 respondents

(66.7%). The study also showed that there were 52 respondents (66.7%) who were able to follow the online learning process with moderate stress to their parents. Statistical data also shows that there is a relationship between the abilities of school-aged children and the stress levels of parents during the Covid-19 pandemic. It is similar with previous research (Lee et al. 2020) that most parents have severe major depression and moderate anxiety associated with their preparation to educate children at home during pandemic.

Children who are in the developmental stage of school age are in the age range 6-12 years. This development stage is the stage where children are experiencing a phase of social demands such as relationships with peers, lessons at school, moral and ethical concepts, and relationships with the adult world. Peer groups can influence children's behavior because physical, cognitive and social development increases at this stage. Children in the school age phase are also experiencing the ability to improve communication, improve skills, actively make friends, and increase interests and talents. According to the theory of psychosocial development, children at the school age phase are at the stage between persistence and feelings of inferiority (industry vs inferiority). Conflict in school age children between persistence and inferiority. A child in this phase will develop his basic abilities (competencies). In this phase the child also learns about systems, rules, and methods so that a desire to compete arises. This socialization process is strongly influenced by the role of the teacher so that if there are standards that are not in accordance with the wishes of a child, it can cause problems in a child. (Nasir 2011). Children who have better psychological adaptation will minimize the difficulties of their parents in carrying out their dual roles. In addition, parents who have experienced previous psychological difficulties such as loss of work, temporary suspension of work activities that result in decreased income will have an impact on psychological mismatches in the family (Cusinato et al. 2020).

During the Covid-19 pandemic, quarantine and changes in daily routines can have a negative psychological impact on children and parents. Activities carried out from home give rise to aspects of rapid change including prohibition of various activities, closure of schools, travel restrictions, social restrictions, and the decline of local businesses which generate a lot of stress in the community (Cusinato et al. 2020). Quarantine or lockdown is a tool used by the government in managing the Covid19 outbreak/ pandemic. This forces people to stay at home unless there are important things to do such as medical examinations, caring for vulnerable people, buying essential items such as medicine, food and drink or doing other important work (Dubey et al. 2020).

Parents face experiencing a variety of causes of stress related to the quarantine period. Parents have to cope with social distancing, changes in activities at work, some even have to experience unemployment, decreased income and new responsibilities for caring for their children during school hours. Changes due to this quarantine period can exacerbate difficulties and stress due to problems that have previously occurred. Parents must regulate their personal circumstances, work, and ability to educate their children. This quarantine situation has the potential to increase the risk of stress for parents, especially in low-income families. This situation increases the risk of stress in the face of personal stress and has adverse outcomes for the well-being of children. Parents who have low self-esteem, low perceptions of attachment to children, restrictions on parental warfare, depression, anxiety, can affect the quality of care for children and affect character formation in children, as well as behavior in children (Cusinato et al. 2020). Parents who increase their stress level have difficulties to managing academic of children (Brown et al. 2020).

The COVID-19 pandemic has led some families to spend more time together during quarantine. However, factors such as financial insecurity, worries about health conditions, uncertainty over the length of quarantine, lack of social and physical activity, boredom, will have an impact on one's mental health. Parents have many problems during quarantine, namely a less than optimal work environment and additional roles to care for and educate their children for school from home. As a result of this situation, quarantine will have more tension, irritability, family conflicts, and domestic violence or child abuse (Janssen et al. 2020)(Xiong et al. 2020).

Parents with school age children are mostly working parents as many as 71 respondents 56.3%. The Covid-19 pandemic encourages people to limit activities outside the home. Children who are schooling at home were required to be taught by online learning. Working parents will continue to accompany their children to do online learning. Parents serve a dual role as employees and as teachers for children who are studying at home. This situation creates a risk for parents to experience psychological impact due to role demands.

The COVID-19 pandemic and several actions related to social activities can also affect parenting behavior. Parental warmth is usually considered to be one of the main dimensions of sensitive parenting behavior and can include acceptance, support and positive involvement with the child. Parental criticism can be defined as expressing negativity, disapproval, or dissatisfaction with a child. Psychological difficulties due to the COVID-19 pandemic can affect parenting behavior with parents to be more emotionally attractive or critical and irritated, rather than supportive, sensitive and encouraging (Janssen et al. 2020).

The early phases of the Covid 19 outbreak showed moderate to severe psychological effects. Respondents who have a psychological impact due to epidemics and levels of stress, anxiety, and depression are mostly women (Wang et al. 2020). Most of the respondents in the study were mothers as many as 112 respondents (88.9%). Women have a tendency to experience great psychological impact due to the demands of many roles. Parent who has a big role in care of her child is mother. Most of the respondents in this study were parents who working mother and were required to manage multiple tasks at the same time. The working mother would spend the time to working from home, as a caregiver for their children, as a teacher for school-aged children in online learning, taking care of daily needs of their families full day.(Limbers, McCollum, and Greenwood 2020). This activity requires a lot of time and must do balanced. (Uzun, Hamiden Karaca, and Metin 2020). This situation have a deep risk. Therefore, psychological interventions to improve mental health and psychological resilience during a pandemic for all parents need to be increased.

This study has several limitations. This study did not divide the abilities of school-aged children at the basic stage and the final stage of school-aged children. The difference in the stage of ability may affect the level of ability of children in participating in online learning. In addition, the number of children who are following online learning is not explained in this study. The increasing number of children may increase the stress level of parents were teaching children in online learning. We recommend future research to be able examine the impact on the learning process of children by increasing the stress level of parents when teaching school children from home.

Although some literature shows that children are at least vulnerable to the 2019 Coronavirus disease (COVID-19), they have been hardest hit by the psychosocial effects of this pandemic. Home and institutional quarantines may impose a greater psychological burden than the physical suffering caused by the virus. School closures, lack of outdoor activities. Distorted diet and sleep habits are likely to interfere with children's normal lifestyle and are at risk of causing boredom, distress, impatience, disorders and various neuropsychiatric manifestations. Incidents of domestic violence, child abuse, faked online content are on the rise. Children of single parents and frontline workers have special problems Children from marginalized communities are particularly susceptible to infection and may suffer longer. The bad consequences of this pandemic, such as child labor, child trafficking, child marriage, sexual exploitation and death, etc. Parents, pediatricians, psychologists, social workers, hospital authorities, governments and non-governmental organizations have an important role to play in reducing the psychosocial adverse effects of COVID-19 on children and adolescents. To provide basic facilities, social security, health care, and minimize educational disparities among children from all walks of life are top priorities (Ghosh et al. 2020).

International organizations and advisory bodies issued guidelines to consider the mental health needs of during covid19, namely planning tasks in stages, involving children in home activities, educating about health protocols to be accustomed to, social restrictions on interaction, and engaging in creative play. Children should also be encouraged to socialize with classmates through digital forums under parental supervision (Singh et al. 2020).

## Conclusion

The ability of school age children who were able to take part in online learning was 78 respondents (61.9%) with the stress level of their parents at moderate stress levels as many as 84 people (66.7%). There is a relationship between the ability of school-age children to take part in online learning and the stress levels of parents during the Covid-19 pandemic.

During the Covid-19 pandemic, the policy to quarantine school-age children made them have to carry out education online. Online education requires the role of parents in the learning process and mentoring. The



existence of an additional role for parents can increase the risk of negative psychological impact on parents. This research can be needed as an implication of policies that are enforced during the online learning period as well as the impact on the mental health of parents. The implications can be used to buffer the mental health pandemic of parents and estimate risk / benefit ratios such as homeschooling to prepare for future learning.

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