



The Incidence of Stress in Adolescents at Senior High School

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Abstract: At the end of 2019, the emergence of a viral infection, namely an outbreak of the coronavirus disease commonly known as COVID-19 was first detected in Wuhan, China. The COVID-19 pandemic period is a non-natural disaster that has an impact on mental and psychosocial health that can be experienced from all walks of life, especially at the age of adolescence. During the COVID-19 pandemic, anxiety, sleep disturbances, depression, and stress increased in adolescence.

To find out whether there is a relationship between the impact of COVID-19 and the incidence of stress in adolescents at senior high school.

The design of this study used a quantitative method with a descriptive correlation design using a cross-sectional approach. Data retrieval using Google Forms in the form of a questionnaire. The sampling method used total sampling with a sample of 153 respondents in adolescents at senior high school. **Result:** The results of the statistical test analysis using the Pearson Product Moment with the results of the Pearson correlation -0.612 and the P value = $0.000 < 0.05$, indicating a strong relationship between the impact of COVID-19 and the incidence with a negative relationship, which means the higher the impact of COVID-19, the higher the impact of COVID-19. lower incidence of stress.

There is a strong relationship between the impact of COVID-19 and the incidence of stress in adolescents at senior high school.

Keywords: COVID-19, stress, adolescent, senior high school

1. INTRODUCTION

At the end of 2019, the emergence of viral infections was first discovered in Wuhan, China. This phenomenon is known as coronavirus more commonly known as COVID-19. The WHO declared on March 11, 2020, that the coronavirus is a pandemic or outbreak. COVID-19 cases around the world are increasing. Data from July 2020 was

13,224,909 cases in 215 countries infected

with the coronavirus, with 574,903 deaths until September 2, 2020, in 216 countries with reports of 25,602,665 cases (WHO, 2020).

As of January 1, 2021, 81.9 million confirmed cases of COVID-19 worldwide (WHO, 2020). On March 2, 2020, Indonesia announced that the first case of COVID-19 continued to

increase and spread rapidly throughout Indonesia with the 4th place in Asian Countries with a total of 623,309. On November 24, 2021, the number of positive coronavirus cases in Indonesia reached 4,254,443 with a total of 4,102,700 recovered cases and 143,766 deaths (4 May 2021). On March 22, 2020, the first COVID-19 case was detected in East Kalimantan, with a total of 9 positive Covid-19 cases. According to data from the East Kalimantan Provincial Government Covid-19 Task Force, on August 9, 2021, 132,280 confirmed Covid-19 cases with 400,611 suspected cases and 4,048 deaths due to the virus (Pemprov Kaltim, 2021).

According to (3, 2020) The COVID-19 virus is a non-natural disaster that has an impact on mental and psychosocial health that can be experienced from all circles, especially in adolescence. Because adolescence is a transitional stage from childhood to adulthood, adolescents experience many psychological, social, and biological changes, and adolescents age stages that are vulnerable to emotional and behavioral development (Dated September 2021). During the COVID-19 pandemic, anxiety, sleep pattern disturbances, social isolation, depression, and stress increased in adolescents, because the COVID-19 pandemic forced adolescents to limit social interaction with their peers, causing adolescents to interact a lot online, and adolescents must be laid off to avoid the spread of COVID-19, limited activities outside the home, frustration, boredom, fear of infection, and inaccurate information about COVID-19 (Estikasari et al., 2021).

World Health Organization (WHO) says that the incidence of stress globally is 450 million people and stress is a disease that threatens society ranked fourth in the world. While in Indonesia the incidence of stress amounted to 10% of the total population of Indonesia.

According to the Health Survey (Riskesdas) more than 19 million people aged 15 years and over experience mental-emotional disorders, and in Indonesia in 2018, mental-emotional disorders with stress symptoms in women as many as 22.3% and 21.4% of men. (Sulastri and Hilinti, 2021).

The results of interviews with 10 respondents in high school expressed the opinion that experiencing the impact of the COVID-19 pandemic on mental health and said that the COVID-19 pandemic was very troubling and difficult both in terms of health and economy, during the covid-19 pandemic respondents said that there were positive and negative sides during this pandemic. On the negative side, it makes several people experience fear of leaving the house and contracting COVID-19, while on the positive side, air pollution is reduced because many people who previously carried out activities outside the home become at home. The impact of the COVID-19 pandemic experienced by respondents is that "it is difficult to understand learning because it is carried out online, thus making respondents less interested in learning". Respondents also stated, "Often feel bored, anxious, irritable, difficult to concentrate, frustration, worry and fear if late in submitting assignments so that students experience sleep pattern problems because they have to stay up late to do assignments and respondents often experience stress because of piled up tasks and are required to understand technology in using online applications." So it was found that 9 respondents stated that they experienced the impact of the COVID-19 pandemic on mental health and 1 respondent stated that they did not experience the impact of the COVID-19 pandemic on mental health.

2. RESEARCH METHODS

This study used a quantitative approach with a cross-sectional design. Sampling used a total

sampling of 153 respondents in adolescents in high school. Data collection using questionnaire sheets through Google form. Univariate analysis using frequency distribution on adolescent characteristics and central tension on the independent variable (impact of COVID-19) and dependent variable (stress event), bivariate using Pearson product-moment. The data was processed using the SPSS (Statistical Package for the Social Science) program version 23.

3.RESULT

A. Characteristics of Respondents

Table 1. Frequency Distribution of Respondent Characteristics

No	Characteristics of Respondents	of Frequency	Percentage(%)
1.	Age		
	15 Years	1	0,2%
	16 Years	39	25,4%
	17 Years	103	67,3%
	18 Years	8	5,2%
	19 Years	2	1,9%
	Total	153	100%
2.	Gender		
	Man	69	45,1%
	Woman	84	54,9%
	Total	153	100%
3.	Class		
	MIPA	82	53,6%
	IPS	71	46,4%
	Total	153	100%

Based on the table above, the age characteristics of the majority of respondents aged 17 years as many as 103 (67.3%), most of the respondents were female as many as 84 people (54.9%) and the majority of respondents were as many as 82 (53.6%).

A. Univariate Analysis

Table 2. Impact of COVID-19 on adolescence at senior high school

	Mean	Median	Standard Devias	Standard Error	CI.95%	
					Lower	Upper
Impact of COVID-19	35	34	7	548	33,66	35,82

In the table above, most respondents experienced the impact of COVID-19 with an average score of 35. This means that COVID-19 currently has an impact on respondents by 33.66%- 35.82%.

Table 3. Stress in adolescence at senior high school

	Mean	Median	Standard Deviation	Error Standards	CI.95%	
					Lower	Upper
Stress	14	14	8	684	12,76	15,46

Based on the results of the research in the table above, it was found that the incidence of stress in adolescents in high school did not experience stress with an average value of 14. With a confidence value that respondents do not experience the stress of 12.76%-15.46%.

B. Bivariate Analysis

Table 4. Impact of COVID-19 and the Incidence of Stress in adolescents at senior high school

Impact of COVID-19	Stress	CI.95%		Pearson Correlation	Sig.(2-tailed)	N
		Lower	Upper			
1	1	-.724	-.489	-.612	.000	153

Based on the results of statistical tests in the table above using *Pearson product-moment*, it was found that the correlation value was 0.612 so it can be concluded that there is a strong relationship between the impact of COVID-19 and the incidence of stress in adolescents.

4. DISCUSSION

A. Characteristics of Respondents

1) Age

Based on the results of the study, the majority of respondents aged 17 years as many as 103 (67.3%), age 15 years as many as 1 (7%) people, aged 16 years as many as 39 (25.5%), age 18 years 8 (5.2%) and age 19 years as many as 2 (1.3%). According to (Asrori, 2008) Adolescence is a transition from childhood to adulthood where adolescence matures emotionally, physically, mentally, and socially.

Based on the results of the study, researchers assume that the impact that occurs is very influential on adolescence. Because this age is still vulnerable to psychological changes,

behavioral development, and emotional development.

2) Gender

The results showed that the majority of women amounted to 84 (54.9%) respondents and men as many as 69 (45.1%) respondents. This is by research conducted by (Pratama et al, 2021) That is, from the results of the study, the majority of female adolescents were 59 (52.1%) respondents. According to (Kountul et al, 2018) women are more likely to be stressed than men, because of the influence of the hormone estrogen on women.

Based on the description above, researchers assume that the female gender has a nature that thinks things excessively and is more sensitive than men. As well as the influence of the hormone estrogen which makes women more susceptible to stress.

B. Univariate Analysis

1) Impact of COVID-19

A study of 153 respondents shows that the average adolescent out of 153 respondents is

experiencing the impact of the COVID-19 pandemic, which is 35. According to (Pertiwi et al., 2021) The negative impact of the COVID-19 pandemic is the occurrence of changes in a person's psychology, these psychological changes are caused by anxiety, depression, and fear. According to (Bismar, 2020) The impact of the COVID-19 pandemic has made adolescents experience several difficulties such as the learning process *Online*, lack of understanding of technology, limited quotas, no direct interaction with teachers, and prohibitions on gathering with their peers, the distance learning process implemented during this pandemic requires time to adapt because before COVID-19 they could meet face-to-face at school and interact without restrictions. Changes that occur affect the ability to understand and learn the material. So that it can cause boredom, anxiety, and stress in adolescents According to the researchers' assumptions, the impact of COVID-19 hurts the mental state of adolescents, because the COVID-19 period forces adolescents not to interact and limit activities outside the home, causing boredom and can increase stress in adolescents

2) Stressful Events

Based on the results of research from 153 respondents showed that the average teenager did not experience stress. This is according to research (Lindasari et al., 2021) It was found that most respondents did not experience stress as much as (55.45%), this happened because individuals had begun to get used to and coping strategies of each individual in dealing with stress. According to (Pratama et al., 2021) Stress is something normal that we deal with every day and is part of life. For example, feeling tired after work, afraid of failing exams, faster heart rate after activity. Teens' stress levels are caused by factors such as pressure,

thinking, and beliefs. When someone is Under great pressure, the stress level is high and when the teenager is under little pressure then the stress level is low.

The factors causing stress during the COVID-19 pandemic are that the usual activities are limited, and the learning system is less effective because it is carried out online. According to WHO, signs of stress during the COVID-19 pandemic include changes in sleep and eating patterns, anxiety, fear of one's health and the health of those closest to you, difficulty concentrating and difficulty sleeping, drug use, and may worsen the condition of individuals who have a history of chronic illness and mental illness (Bismar, 2020).

According to the researchers' assumptions, the incidence of stress in adolescents is caused by the COVID-19 outbreak which forces adolescents to adjust to applicable rules.

C. Bivariate Analysis

Based on the results of statistical tests in the table above using Pearson product-moment Found results that value correlation -0.612 it is concluded that there is a strong relationship between the impact of COVID-19 and the incidence of stress in adolescents. The direction of the relationship is negative, which means that the higher the impact of COVID-19, the lower the incidence of stress. This is because adolescents have begun to adapt and have mechanisms Coping with which is good when facing COVID-19 times. This is in line with research (Somantri et al., 2019) which states that the mechanism of Coping with A good one will reduce one's stress. According to (Raudha and Tahlil, 2016) Strategy Implementation Coping by diverting, avoiding, having peer support, relaxation, listening to music, praying, and having confidence. According to research (Solicha den Amalia, 2022) Handling strategies to minimize stress include doing activities such

as playing on phones and watching funny parodies to improve their Mood teens make changes by shifting problems through preferred actions. This is in line with interviews with teenagers in high school where teenagers stated that overcoming problems during the pandemic by doing activities they like such as listening to music and playing games.

Studies in developing countries show that adolescent stress only appears in the first week. This happens because there is a possibility that Teens' Underestimate Risk that related to the pandemic COVID-19 (Hasmy and Ghozali, 2022). According to research (Jamila, 2021) The online learning process and the lack of interaction between teachers and students cause students to be responsible for their learning and be able to complete their tasks online. Direct interaction between teachers and students is very important to know the progress of their learning process. In online learning, teachers need to monitor their students when learning online. Online learning methods make students experience boredom and even many of the students experience stress due to the absence of direct interaction. Adaptations that occur at this time can affect the mental health of adolescents such as adolescents experiencing excessive anxiety and also experiencing stress. This is in line with research (Buddhist & Octavianto, 2020) believe that distance learning implemented during this pandemic requires time to adapt because, before the coronavirus, they met face-to-face at school and could interact without restrictions.

Maintaining mental health today is very important. According to (Salsabila, 2021) How to maintain mental health at this time by adjusting yourself to what is happening in the current environment. Self-control can begin with increasing thinking and motivation, and we must learn to avoid negative thoughts and feelings and learn to accept the situation.

Sticking to the religious side is also very influential Cultivating a positive attitude and fun hobbies can also help relieve

stress. Not only yourself alone but also environmental conditions and people around you can determine the health status of a person's mentality.

Based on the description that has been done, it is found that the impact of COVID-19 is very influential on adolescent mental health, stress that occurs at this time is caused by academics, life changes that require adaptation, and lack of interaction with their peers. This not only causes stress in adolescents, but can cause anxiety, worry, boredom, and frustration. So it needs special attention to adolescents in their mental health. Stress experienced can be overcome by making efforts to solve the problems faced and trying to control, and minimize stress, regulate mindset, and foster motivation.

5. CONCLUSION

A. From the characteristics of respondents based on age, it can be concluded that the majority of 17- 17-year-olds are 103 (67.3%), most of the respondents are female as many as 84 (54.9%) and the majority of respondents are 82 (53.6%).

B. The independent variable of the impact of COVID-19 can be concluded that the results of the study showed that most adolescents at Senior High School Samarinda experienced the impact of COVID-19 with an average score of 35. And the value of trust that is believed that COVID-19 currently has an impact on respondents by 33%-35%.

C. The dependent variable of stress events can be concluded that the incidence of stress in adolescents at Senior High School Samarinda does not experience stress with the average value of stress events being at

14. With a trust value respondents do not experience stress with a confidence value of 12%- 15%.

D. The results of statistical tests using Pearson product-moment showed a significant value of 0.000

< 0.05 and a correlation result of 0.612 so it can be concluded that there is a strong relationship between the impact of COVID-19 and the incidence of stress in adolescents in high school. Trust values from -72% to 48% are also believed to indicate a link between the impact of COVID-19 and the incidence of stress in adolescents. The direction of negative relationships means that the higher the impact of COVID-19, the lower the incidence of stress in adolescents.

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