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Psychological Changes of Teachers in the Implementation of Semi-Online Learning in Elementary Schools during the Covid-19 Pandemic

Arnika Dwi Asti[1*], Sarwono[2]

[1*)] Faculty of Health, Universitas Muhammadiyah Gombong
[2] Faculty of Health, Universitas Muhammadiyah Gombong

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The Coronavirus or Covid-19 which appeared in December 2019 is a new type of virus that attacks the respiratory system. The increasing cases of COVID-19 have affected many aspects of life including education with the shifting from offline to online learning. Indeed, this condition changes the psychological condition of the teachers at elementary schools in Gombong Sub-district.To identify psychological changes of teachers in the implementation of semi-online learning in elementary school children during the Covid-19 pandemic in elementary schools in Gombong Sub-district. This study is descriptive and quantitative with a cross-sectional design. It involved a sample of 154 people selected using a proportionate stratified random sampling technique. Data were collected in October 2021 using the DASS 42 questionnaire with a validity and reliability value of 0.91. The results of this study showed that the majority of teachers in elementary schools in Gombong Sub-district were female with a total of 97 people (63.0%). Then, a total of 112 people (72.7%) aged 18-40 years old and 75 people (48.7%) had had an income of <1 million. In terms of marital status, 132 people (85.7%) were married. Then, 89 people (57.8%) had worked for >5 years and 154 people (100%) used semi-online learning. Most of the teachers experienced psychological changes in the form of mild anxiety levels, mild stress levels, and normal depression levels with 76 people (49.4%), 81 people (52.6%), and 144 people (93.5%) respectively. This study reveals that most of the teachers in elementary schools in Gombong Sub-district experience psychological changes in the form of anxiety and stress, not depression.

Kata kunci:

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**) corresponding author*

Arnika Dwi Asti

Facuty of Health, Universitas Muhammadiyah Gombong
Dusun Golongan RT 002/001 Jatiroto, Buayan, Kebumen

Email: arnikadwiasti@gmail.com
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A B S T R A K

Adanya fenomena Coronavirus atau lebih dikenal dengan Covid-19 pada awal bulan Desember 2019, yang merupakan jenis virus baru yang menginfeksi sistem respirasi, dan masih terus meningkatnya kasus sampai saat ini sehingga berdampak pada aspek pendidikan yaitu diadakannya pembelajaran daring yang mengakibatkan perubahan psikologis pada guru. Untuk mengetahui perubahan psikologis guru terhadap pembelajaran daring anak sekolah dasar selama pandemi Covid-19 di SD se-Kecamatan Gombong. Metode dari penelitian ini adalah kuantitatif deskriptif dengan pendekatan *cross sectional* dengan sampel 154 orang yang diambil menggunakan teknik *proportionate stratified random sampling*. Pengumpulan data dilakukan pada bulan Oktober 2021, instrumen dengan menggunakan kuesioner DASS 42 yang mempunyai tingkatan validitas dan nilai reliabilitas sebesar 0,91. Hasil dari penelitian ini didapatkan bahwa guru di SD se-Kecamatan Gombong mayoritas berjenis kelamin perempuan

97 orang (63,0%), usia 18-40 112 orang (72,7%), penghasilan <1 juta 75 orang (48,7%), status perkawinan menikah 132 orang (85,7%), masa kerja >5 tahun 89 orang (57,8%), dengan jenis pembelajaran semi daring 154 orang (100%). Sebagian besar guru mengalami perubahan psikologis berupa kecemasan tingkat ringan 76 orang (49,4%), stres tingkat ringan 81 orang (52,6%), dan depresi pada tingkat normal 144 orang (93,5%). Pada penelitian ini didapatkan hasil bahwa sebagian besar guru di SD se-Kecamatan Gombong mengalami perubahan psikologis berupa kecemasan dan stres, serta tidak mengalami depresi.

INTRODUCTION

Covid-19 has been the main topic of discussion since its emergence in early December 2019 in China (World Health Organization, 2020). The virus has infected millions of people in the world and caused global economic chaos (Kemenkes RI, 2021). Covid-19 is an RNA virus in the form of small particles measuring 120-160 nm (Dutta & Smita, 2020). This virus was first known to come from animals, namely bats. The main cause of this virus is not known but it is always associated with the existence of a fish market in Wuhan, China (Bank, 2020). The first case of Covid-19 in December 2019 was reported as a case of pneumonia. Since then, the coronavirus cases have increased rapidly to date, not only in China but also in many countries in the world such as South Korea, Japan, and Thailand (Sayin Kasar & Karaman, 2021).

This COVID-19 pandemic has affected various aspects of life including social, economic, tourism, and even educational aspects (Rahmadhani et al., 2021). Most countries prefer to close their schools to reduce the spread of this Covid-19 case (Kemenkes RI, 2021). The temporary closure of schools also affects a total of 421,388,462 students in 39 countries referring to UNESCO data (Purwanto et al, 2020). To prevent the spread of Covid-19, the government has set various policies, such as social isolation, social distancing, and large-scale social restrictions (PSBB) (Siregar, H.S et al., 2020).

Changes in the learning system from offline to online are not immediately accepted by teachers (Nartiningrum & Nugroho, 2021). They need to adapt to new habits that sometimes cause stress during implementation. Therefore, many teachers experience psychological effects or work stress because they are required to be creative and innovative in terms of technology (Silaen, 2021). In line with a study by Karina, Riswan Efendi, Lisya Chairani, Indah Manda Sari (2021), the ability to use technology and online learning is related to the mental health of elementary school teachers (Xu, 2021). So elementary school teachers who have high abilities in using technology have a risk of experiencing PTSD symptoms of 6.3661 times (Cuciati et al., 2022). While elementary school teachers who assumed that online learning was quite effective to have a risk of experienced PTSD symptoms of 0.0228 times. This study indicates that the majority of elementary school teachers experience mild PTSD symptoms (Dewi & Wajdi, 2021).

Teachers, whose role is to educate and guide students, have to be able to show maturity and maintain physical and spiritual health conditions (Wienaldi, 2021). Mental health is important for a teacher to deal with learning routines (Sari Famularsih, 2020). If the teacher's mental health is disturbed, it is feared that it may interfere with the learning process and even affect the condition of students (Gray, Wilcox, and Nordstokke 2017; Harding et al. 2019). Another study by Alfiandy Warih Handoyo, and Sigit Setiawan (2021) entitled "Description of Teachers' PTSD Levels during the Online Learning Period" revealed that almost all teachers showed symptoms of stress during online learning (Shindjabuluka et al., 2022). Most of the symptom of stress is at stage 2, namely a decrease in enthusiasm for conducting online learning activities (Aji, 2020).

Moreover, a study by Claradita Angga Renny (2020) entitled "Elementary School Teachers' Work Stress Management towards Workload During the Covid-19 Pandemic" showed that work stress among elementary school teachers was caused by an increase in workload. Therefore, they have to plan their tasks in such a way that they don't feel stressed and burnout.

METHOD

This descriptive study used a cross-sectional design. This study was conducted from January to December 2022 in all elementary schools in Gombong sub-district, Kebumen District, Central Java with a population of 250 teachers. This study involved 154 teachers as respondents obtained using the Slovin formula. The inclusion criteria were teachers who teach in elementary schools, who are physically and mentally healthy, can communicate well, and are willing to be respondents. The instrument used was a questionnaire. The respondent characteristic questionnaire was divided into two sections. The first section covered personal information including age, gender, and marital status, while the second section was social status and economic status including years of service and total income. The measurement of the depression level used the Depression Anxiety Stress Scale 42 (DASS) which has been translated into Indonesian by Damanik (2011) with a Cronbach's Alpha value of 0.91. Before data collection, respondents were given an informed consent to sign. Those who return the informed consent were taken as respondents.

RESULTS AND DISCUSSION

Table 1 shows that the majority of respondents are female, namely 97 people (63.0%). In terms of age, 112 people (72.7%) aged 18-40 years. Then, 75 people (48.7%) had an income of <1 million Rupiah and 132 people (85.7%) were married. Concerning the length of service, 89 people (57.8%) have worked for >5 years. Then, all respondents (100%) used semi online learning.

Table 1.
Frequency distribution of respondents based on social demographic characteristics

Characteristics	n	%
Sex		
Male	57	37.0
Female	97	63.0
Age		
18-40 years old	112	72.7
41-60 years old	42	27.3
Income		
<1 million	75	48.7
1-3 million	64	41.6
>3 million	15	8.7
Marital status		
Married	132	85.7
Single	19	12.3
Others	3	1.9
Length of service		
<2 years	17	11.0
2-5 years	48	31.2
>5 years	89	57.8
Type of learning		
Semi online	154	100

Based on table 2, the majority of respondents, namely 115 people (74.7%) experienced psychological changes. A total of 76 people (49.4%) experienced psychological changes in anxiety with a mild level. Most of the respondents who experienced anxiety were female, namely 46 people (29.9%), aged 18-40 years consisting of 62 people (40.3%), with an income of <1 million consisting of 37 people (24.0%), married status consisting of 60 people (39.0%), length of service of >5 years consisting of 38 people (24.7%), and implementing learning semi-online learning system consisting of 76 people (49.4%).

Table 3 shows that the majority of respondents experienced changes in psychological stress, namely 88 people (57.1%). Most of the respondents who experienced changes in psychological stress were at a mild level of stress, namely 81 people (52.6%). The majority of respondents who experience stress are female consisting of 55 people (35.7%), aged 18-40 years consisting of 60 people (39.0%), with an income of <1 million consisting 44 people (28.6%), married status consisting of 65 people (42.2%), years of service of > 5 years consisting of 42 people (27.3%), and implementing a semi-online system consisting of 81 people (52.6%).

Table 4 shows that the majority of respondents, namely 144 people (93.5%) did not experience a change in their level of depression where they have a normal depression level. Respondents who were at a normal level of depression were mostly female, namely, 94 people (61.0%), aged 18-40 years consisting of 106 people (68.8%), with an income of <1 million consisting of 72 people (46.8%), married status (80.5%) consisting of 124 people, length of services of >5 years consisting of 83 people (53.9%), and implementing a semi-online learning system consisting of 144 people (93.5%).

Table 2.
Frequency distribution of anxiety levels based on respondent characteristics

No	Characteristics	Anxiety levels											
		Normal		Mild		Moderate		Severe		Heavy		Total	
		F	%	f	%	f	%	f	%	f	%	f	%
1	Sex												
	Male	15	9.7	30	19.5	10	6.5	2	1.3	0	0.0	57	37.0
	Female	24	15.6	46	29.9	18	11.7	7	4.5	2	1.3	97	63.0
	Total	39	25.3	76	49.4	28	18.2	9	5.8	2	1.3	154	100.0
2	Age												
	18-40 years	22	14.3	62	40.3	21	13.6	6	3.9	1	0.6	112	72.7
	41-60 years	17	11.0	14	9.1	7	4.5	3	1.9	1	0.6	42	27.3
	Total	39	25.3	76	49.4	28	18.2	9	5.8	2	1.3	154	100.0
3	Income												
	<1 million	17	11.0	37	24.0	16	10.4	5	3.2	0	0.0	75	48.7
	1-3 million	17	11.0	31	20.1	10	6.5	4	2.6	2	1.3	64	41.6
	>3 million	5	3.2	8	5.2	2	1.3	0	0.0	0	0.0	15	9.7
	Total	39	25.3	76	49.4	28	18.2	9	5.8	2	1.3	154	100.0
4	Marital status												
	Married	38	24.7	60	39.0	25	16.2	7	4.5	2	1.3	132	85.7
	Single	1	0.6	14	9.1	3	1.9	1	0.6	0	0.0	19	12.3
	Others	0	0.0	2	1.3	0	0.0	1	0.6	0	0.0	3	1.9
	Total	39	25.3	76	49.4	28	18.2	9	5.8	2	1.3	154	100.0
5	Years of service												
	<2 years	3	1.9	13	8.4	1	0.6	0	0.0	0	0.0	17	11.0
	2-5 years	10	6.5	25	16.2	10	6.5	3	1.9	0	0.0	48	31.2
	>5 years	26	16.9	38	24.7	17	11.0	6	3.9	2	1.3	89	57.8
	Total	39	25.3	76	49.4	28	18.2	9	5.8	2	1.3	154	100.0
6	Type of learning												
	Semi online	39	25.3	76	49.4	28	18.2	9	5.8	2	1.3	154	100.0
	Total	39	25.3	76	49.4	28	18.2	9	5.8	2	1.3	154	100.0

Table 3.
Frequency distribution of stress levels based on respondent characteristics

No	Characteristics	Stress Level						Total	
		Normal		Mild		Moderate			
		f	%	f	%	F	%	f	%
1	Sex								
	Male	28	18.2	26	16.9	3	1.9	57	37.0
	Female	38	24.7	55	35.7	4	2.6	97	63.0
	Total	66	42.9	81	52.6	7	4.5	154	100.0
2	Age								
	18-40 years	47	30.5	60	39.0	5	3.2	112	72.7
	41-60 years	19	12.3	21	13.6	2	1.3	42	27.3
	Total	66	42.9	81	52.6	7	4.5	154	100.0
3	Income								
	<1 million	27	17.5	44	28.6	4	2.6	75	48.7
	1-3 million	27	17.5	34	22.1	3	1.9	64	41.6
	>3 million	12	7.8	3	1.9	0	0.0	15	9.7
	Total	66	42.9	81	52.6	7	4.5	154	100.0
4	Marital status								
	Married	62	40.3	65	42.2	5	3.2	132	85.7
	Single	4	2.6	13	8.4	2	1.3	19	12.3
	Others	0	0.0	3	1.9	0	0.0	3	1.9
	Total	66	42.9	81	52.6	7	4.5	154	100.0
5	Years of service								
	<2 years	6	3.9	9	5.8	2	1.3	17	11.0
	2-5 years	16	10.4	30	19.5	2	1.3	48	31.2
	>5 years	44	28.6	42	27.3	3	1.9	89	57.8
	Total	66	42.9	81	52.6	7	4.5	154	100.0
6	Type of learning								
	Semi online	66	42.9	81	52.6	7	4.5	154	100.0
	Total	66	42.9	81	52.6	7	4.5	154	100.0

Table 4.
Frequency distribution of depression level based on respondent characteristics

No	Characteristics	Depression level						Total	
		Normal		Mild		Moderate			
		f	%	f	%	F	%	F	%
1	Sex								
	Male	50	32.5	4	2.6	3	1.9	57	37.0
	Female	94	61.0	0	0.0	3	1.9	97	63.0
	Total	144	93.5	4	2.6	6	3.9	154	100.0
2	Age								
	18-40 years	106	68.8	2	1.3	4	2.6	112	72.7
	41-60 years	38	24.7	2	1.3	2	1.3	42	27.3
	Total	114	93.5	4	2.6	6	3.9	154	100.0
3	Income								
	<1 million	72	46.8	2	1.3	1	0.6	75	48.7
	1-3 million	57	37.0	2	1.3	5	3.2	64	41.6
	>3 million	15	9.7	0	0.0	0	0.0	15	9.7
	Total	144	93.5	4	2.6	6	3.9	154	100.0
4	Marital status								
	Married	124	80.5	2	1.3	6	3.9	132	85.7
	Single	17	11.0	2	1.3	0	0.0	19	12.3
	Others	3	1.9	0	0.0	0	0.0	3	1.9
	Total	144	93.5	4	2.6	6	3.9	154	100.0
5	Years of service								
	<2 years	17	11.0	0	0.0	0	0.0	17	11.0
	2-5 years	44	28.6	2	1.3	2	1.3	48	31.2
	>5 years	83	53.9	2	1.3	4	2.6	89	57.8
	Total	144	93.5	4	2.6	6	3.9	154	100.0
6	Type of learning								
	Semi online	144	93.5	4	2.6	6	3.9	154	100.0
	Total	144	93.5	4	2.6	6	3.9	154	100.0

Based on the results of this study, most teachers experienced a mild level of anxiety. This is in contrast to Aliftitah (2021) that the level of anxiety of teachers concerning online learning during the Covid-19 pandemic was mostly at the moderate level with a total of 33 people (52.4%). This is because the teacher is an educated person

who can control their emotions so that they can easily deal with the psychological changes (Alfarimba et al., 2021). The study found that the majority of respondents with mild anxiety were aged 18-40 years, namely 62 people (40.3%). Age is one of the factors affecting a person's anxiety as the older the person, the better the psychological maturity meaning that the more mature the psychology, the better the ability to adapt to anxiety (Astin et al., 2021). This study revealed that early adulthood was more at risk of experiencing anxiety compared to adults. Based on the results of the study, the majority of respondents who experienced mild anxiety earned <1 million, namely 37 people (24.0%). This study shows that someone with a high income will have lower anxiety than those with a low income. This study is in line with Yusmaidi (2016) that there is a socio-economic influence on anxiety in which respondents with an income of <1,400,000 have a 0.009 chance of experiencing more severe anxiety than those with an income of >1.400.000. Economic status is the level of a person's ability to earn income to meet the needs of life (Cuciati et al., 2022). People with low economic status are prone to anxiety and stress as their income does not meet their needs (Vilchez et al., 2021). The minimum income received by a teacher is also very influential on their psychology during the pandemic (Tsegay et al., 2022).

Based on the results of the study, the majority of respondents who experienced mild anxiety were married, namely 60 people (39.0%). In line with Haryanto (2020), the majority of respondents who experience anxiety were married (70.5%) meaning that marital status has a significant influence on anxiety levels. Married individuals tend to have a higher anxiety rate than those who are single. Based on the results of the study, the majority of respondents with mild anxiety had a length of service of > 5 years, namely 38 people (24.7%). This study is in line with Sobirin (2021) that most employees had a length of service of > 5 years, namely 58 respondents (73.4%) of 79 respondents. This means that length of work can affect one's knowledge obtained from experiences. In other words, the longer the length of service, the more experiences the persons have (Sutarto et al., 2020). According to the analysis, more teachers experience mild anxiety with a length of service of > 5 years due to more knowledge and work experience so that they are better adapted to dealing with anxiety (Rasmitadila et al., 2020).

The impact of changes in stress levels experienced by teachers is based on the distributed questionnaire in which according to Munajat (2012), the physical symptoms are the form of drier lips and easily tired when doing activities (Wienaldi, 2021). Besides, behavioral symptoms can also be noted such as being irritable and impatient when dealing with something, having trouble sleeping, being easy to overreacting to something, and being more easily irritated when something unexpected happens (- & Qolby, 2021). Based on the results of the analysis, the length of service also affects the level of stress (Cuciati et al., 2022). Teachers who have worked for >5 years are generally more saturated than teachers who have just worked, because monotonous work routines and a limited work environment resulting in boredom, and even creative and innovative work demands during the pandemic also cause mental stress (Prasetyo & Supena, 2021).

In this study, the ongoing learning system is a semi-online learning system, which means that learning is carried out both online and offline (Noori, 2021). The definition of learning according to the researcher is the relationship between teachers and students with clear and definite sources to help students gain knowledge (Khlaif et al., 2021). During the Covid-19 pandemic, social restrictions policies were carried out to reduce the spread, one of which was by implementing WFH (Work from Home) for workers, for example through online meetings and online teaching and learning process. For educators such as teachers or lecturers, problems that arise during online learning are poor internet networks, unclear use of time, and lack of communication between teachers and students (Popa et al., 2020). Besides, other problems can also arise for both teachers and students, namely not focusing on learning, sore eyes, and back pain (Prieto et al., 2021). Because of that condition, psychological changes such as stress, anxiety, or depression, can occur in teachers or other lecturers (Dutta & Smita, 2020). Educators felt the direct impacts of the pandemic, namely an increase in feelings of stress, unsuitable students' learning outcomes, and teacher's expectation. This is in accordance with Palupi (2020) that teachers are the individuals who are in a condition prone to experiencing psychological problems either socially or emotionally as they have many burdens and demands, as well as problems regarding students and infrastructure for the learning process (Vilchez et al., 2021).

Students face some obstacles in online learning such as the ability to use a smartphone, limited facilities at home, purchasing phone credit for internet access, and parental support which also affect the psychological state of the teacher (Roitsch et al., 2021). When students cannot perform optimally, the teacher will feel that their workload has increased and felt afraid and anxious that the students will not be able to master or understand the lessons (Timmons et al., 2021). This is supported by Weken (2020) that online learning implemented during the pandemic is a major factor causing an increase in anxiety in teachers or teaching staff. This anxiety includes anxiety about the effectiveness of the time used and imbalances in proportion to good learning service delivery (Allo, 2020).

LIMITATION OF THE STUDY

This study focused only in state elementary school and this study did not distinguish psychological changes in honorary teachers and teachers with civil servant status.

CONCLUSION AND SUGGESTION

The results of this study showed that most of the teachers in elementary schools in Gombong Sub-district experienced psychological changes in the form of mild anxiety, mild stress, and normal depression levels. Based on the analysis of socio-demographic factors, this is also due to the long period between the initial appearance of the Covid-19 virus, namely in early December 2019 so that teachers have been able to adapt and get used to online learning so that they feel less anxious, stress, or depressed at the time of the study.

Schools are expected to prepare strategies such as providing mental health education or coping strategy training programs for their teaching staff who are experiencing psychological impacts from the implementation of a semi-online learning system during the Covid-19 pandemic. Teachers or teaching staff are expected to apply coping strategies to minimize psychological changes such as anxiety, stress, or depression.

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Conflict of Interest Statement

Authors declared there is no conflict of interest.

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