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Fear of Covid-19 And Work Engagement as Predictors of Psychological Distress in Medical Residents

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Abstract

This study aimed to see whether the Fear of Covid-19 and work engagement affect the psychological distress of resident doctors. The pandemic situation of Covid-19 is not over yet with viral mutations from Covid-19 Delta to Omicron variants. Residents' doctors were obliged to help with treatment even though their main duty was focusing on their studies. As the Covid-19 is a deadly situation and should be handled with many safety protocols, this situation can be anxious for both the patient and the medical staff (including the residents) who work daily in the hospital. This study involved 877 medical residents. Work engagement was measured with Utrecht Work Engagement Scale (UWES), and psychological distress was measured with DASS-21. Regression analysis and Structural Equation Modeling (SEM) were used as statistical methods. The results showed that both Fears of Covid-19 and work engagement affect psychological distress. This article also details the impact of each aspect measured in this study.

Introduction

The world is facing the inevitable CoronaVirus Disease (Covid-19) pandemic situation, including Indonesia. Since its first confirmed case was reported in early March 2020, the country still has to combat the pandemic until now. According to Covid-19 Response Acceleration Task Force, around 175.095 people were infected by 31 January 2021 (Analisis Data Covid-19 Satuan Tugas Penanganan Covid-19). In response to these nationwide cases, the government had declared several regulations to stop the spread and cure the patients, such as public activity restrictions (PPKM), increasing the number of emergency hospitals, and conducting a massive vaccination program. According to this situation, it is clear that health workers are at the forefront of combating pandemics by serving healthcare. All health workers, especially doctors and nurses, experienced an inevitable high-risk situation. However, the availability of medical staff is insufficient to deal with increasing demands (Mahendradhata et al., 2021).

Surge capacity is the principle that was used by Indonesian health services during the pandemic. It was different from disaster management, in which, in a pandemic, both outpatients and inpatients should be controlled in conjunction with contact tracing (Studi pembelajaran Penanganan Covid-19). Moreover, the number of Covid-19 patients surged rapidly, and some of them who required immediate hospitalization could not get proper treatment. Notwithstanding, the physician-to-population ratio is inadequate, which stands at only 0.38 physicians per 1.000 population, unequal physician geographical distribution, and a significant shortage of nurses and midwives (Delloitte, 2020; Mahendradhata, 2021). This fact shows that Indonesia is facing several challenges in the health system, namely human resources to take care of the patients (Mahendradhata et al., 2021). In addition, based on the data from Deloitte (2020), Indonesia's population of 265 million is currently served by around 1.206 pulmonologists, 4.134 anesthesiologists, 350 intensivists, 6.084 pediatricians, and 1.811 clinical pathologists. Indonesia's Covid-19 rapid response task force has estimated that the country will need an additional 1,500 doctors (especially pulmonologists, anesthetists, and general physicians) and 2,500 nurses to manage the surge of COVID-19 patients.

With a limited number of medical personnel and working conditions that are susceptible to viruses, the death of medical personnel cannot be avoided. Based on the data collected by Lapor Covid-19, from March 2020 until January 2021, the medical personnel death tolls are 752, which peaked in

January 2021 with around 165 deaths. Medical personnel with the highest death rate are doctors. This condition is highly concerning, but on the other hand, the infection rate in the community is also increasing. Due to the large number of people infected, the governments initiated the vaccination program to slow down the spread of Covid-19. Therefore, the government needs additional manpower who has knowledge and skills related to Health to help provide services to the community. The government has opened many emergency hospitals with limited hospitals, but additional personnel is also needed ("RS Darurat," 2020). In addition, residents had been reallocated from their preliminary rotations to the emergency department, in-depth care unit, and Covid-19 ward to fulfill the demand of medical personnel (Fong et al., 2020)

In addition, these medical residents also experienced fear during the uncertainty and their duties to provide services to patients suffering from Covid-19 (Pourfridoni et al., 2022; Terzic-Supic, 2021). Due to the virus's novelty and the Covid-19 disease's rapid spread, the fear people experienced increased. Fear is one of the characteristics of infectious disease that distinguishes it from other illnesses (Ahorsu et al., 2020). Therefore, people fear what is being experienced, in this case, Covid-19. Zou et al. (2018) also found that experiencing more upsetting events in life and finding it difficult to cope with them are also predictors of depression, anxiety, and stress, known as psychological distress.

Based on the explanation above, this study aimed to know whether the residents have a low or high fear of Covid-19 during their residency program. Moreover, it is important to know their psychological distress, depression, anxiety, and stress, as long as they are completing their academic responsibilities and emergency doctors for Covid-19. Therefore, this study examines statistically whether there is the role of fear of Covid-19 and work engagement in psychological distress.

As a public hospital, Hospital X admits medical students completing their specialist education. They are expected to meet human resources needs. Due to the large number of people who have been infected with Covid-19 and the vaccination program carried out for most Indonesians, the task of being a volunteer has turned into an obligation for residents. Aside from their study, they should be able to provide either emergency services or other treatment to cure those infected with Covid-19. There is no doubt that this condition has an impact on the residents. The main tasks of these residents

are focusing on their studies and other tasks related to their specialization. In addition, around 100 residents confirmed positive, and some of them died (tirto. id). Covid-19 also has significant impacts on healthcare workers' psychological Health, fostering issues such as anxiety, sleep disturbance, and depression (Chirico & Magnavita, 2021; Lukman, 2020; Legido-Quigley et al., 2020).

As ordinary human beings, residents also have limitations both in terms of time and energy. The extraordinary situation of the Covid-19 pandemic spreading in the community made these residents likely to experience a depressing situation that caused them to experience stress, anxiety, and even depression (DAS), considering a large number of Covid-19 patients in the community they had to serve. Several other things that might influence the emergence of DAS among residents are residents' awareness of their job responsibilities as prospective doctors.

The current study investigated the role of work engagement and physiological symptoms of anxiety, depression, and stress using the conservation of resources (COR) theory (Hobfoll, 2001). COR theory (Lee & Ashforth, 1996), a plausible explanatory model of burnout, combines numerous theories of stress but expands them through a resource perspective. According to COR theory, people have a deep-based drive to gain, maintain, and guard what they value, referred to as resources (Hobfoll, 1989). COR theory addresses what people do when they are stressed and how they behave when they are not under threat. In particular, when faced with stress, the model predicts that people will want to minimize the net loss of resources. When individuals are not threatened, they try to build resource surpluses to compensate for the chance of future loss.

Work engagement could be viewed as a resource surplus, whereas the COR theory depicts burnout as a condition of extreme resource depletion (Hobfoll, 2001). Furthermore, Maslach, Schaufeli, and Leiter (2001) define engagement as the polar opposite of burnout, with burnout being the negative pole and engagement representing the positive pole in a work-related well-being continuum. People are more likely to enjoy positive well-being and Health when they have resource surpluses. In conclusion, it can be assumed that depression, anxiety, and stress will be affected by the level of work engagement. According to previous research, work engagement is more likely to be the antecedent for symptoms of depression and anxiety than the outcome (Innstrand, Langballe, & Falkum, 2012).

Whereas, to the author's knowledge, work engagement is also associated with depression (Hakanen, Schaufeli, & Ahola, 2008).

We elaborate further that positive experiences or resources are likely to accumulate, creating a positive spiral of resources and likely preventing psychological distress. According to Schaufeli et al. (2002), work engagement is a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption. Vigor is characterized by high levels of energy and mental resilience while working. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly, and one has difficulties detaching oneself from work.

Professionals with high work engagement could cope the difficult and stressful situations. Work engagement can be viewed as a protective factor against burnout in all its dimensions (emotional fatigue, depersonalization, and personal fulfillment) and is also related to the quality of care (Van Bogaert et al., 2017). Employees who have an energetic and effective sense of connection with their work activities will prefer to work and not perceive work as a burden that causes depression (Schaufeli & Salanova, 2006). Some experts suggest that mentally healthy worker shows work engagement characteristic. Work engagement promotes positive energy, which will reduce the risk of fatigue that potentially leads to depression (Demerouti et al., 2010). Another study conducted by Hakanen and Schaufeli (2012) found a negative effect between work engagement and depression, meaning that the higher the work engagement, the lower the depression and vice versa.

Furthermore, people with high levels of work engagement develop less moral distress, avoiding the emotional discomfort of not being able to act according to what they consider to be right (Lawrence, 2011). Thus, we argue that residents who have high levels of work engagement tend to experience less psychological distress because they have more positive resources than the others residents.

Previous research conducted by Schaufeli and Salanova (2006) and Hakanen and Schaufeli (2012) regarding work engagement with psychological distress (DAS) was carried out in a situation without the pressure of the Covid-19 pandemic situation so that it was possible to get different results because the participants in this study face dangerous risks. In addition, participants in this study were

also specific; the medical residents who were supposed to be focused on their study but were required to handle Covid-19 patients, despite comorbidities and the risk of contracting Covid-19 leads to fatality. Finally, we provide three hypotheses regarding fear of Covid-19, work engagement, and psychological distress.

Hypothesis 1: There is a fit of research model Fear of Covid-19 and work engagement to the medical residents' level of psychological distress level

Hypothesis 2: There is an effect of Fear of Covid-19 on the medical residents' level of psychological distress

Hypothesis 3: There is an effect of work engagement on the medical residents' level of psychological distress
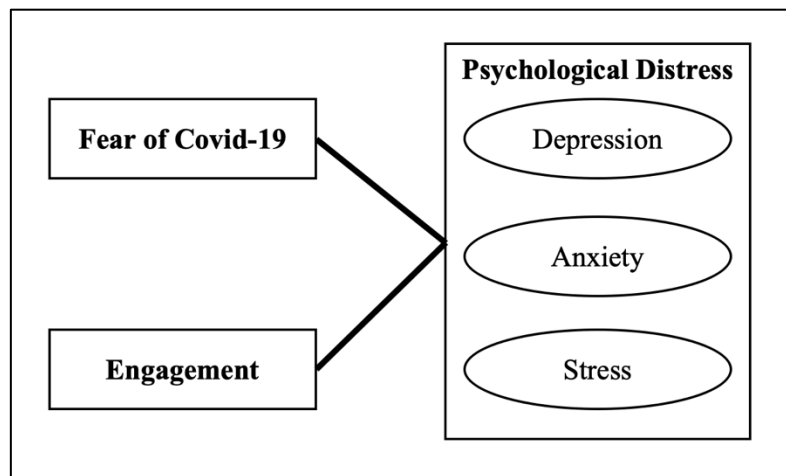

Figure 1. Research Model

Method

Participants

This study used a quantitative research method to test hypotheses and causal relationships and make predictions on certain situations or variables. The participants of this research were all the residents of a public hospital located in Central Java. The data collection was designed using Google Form, as it was believed to reach all residents wherever they are, yet both an easy and efficient data collection

technique. In addition, this method was suitable for use in the pandemic situation to avoid direct contact. This Google Form was distributed with a link to all residents of this study population. The number of residents who were willing to fill out the Google Form is 877 participants. These participants were from 19 different program specialists (e.g., Internist, surgery, psychiatry, radiology, neurologist). The following is the demographic data of this research.

Measures

Before the survey is conducted, it is necessary to develop a measuring instrument to measure the purpose of this survey. The measuring instrument used in this survey uses a scale based on the aspects of the variables to be measured—alternative answers using the answer choices proposed by Likert. The Likert scale is a psychometric scale that is most widely used in research/surveys. The data collection procedure is carried out using several scales. Psychological distress was measured using the DASS-21, the Fear of Covid-19 Scale measured fear of Covid-19, and the Work Engagement Scale measured work engagement. The following is an explanation of each scale used in this study:

Depression Anxiety Stress (DAS) 21 Scale. The measurement of respondents' anxiety, stress, and depression used the DAS-21 scale, adapted into Indonesian (National Symposium & Workshop in Psychoneuroimmunology in Dermatology, 2015), consisting of 3 (three) aspects, namely depression, anxiety, and stress. Each aspect consists of 7 (seven) statements so that in total, there are 21 statements in the DASS Scale with 4 (four) alternative answer choices (Never (score 0), Sometimes Experiences (score 1), Always Experiences (scores 0). 2), Very Often (score 3). Here are some items asked: "I feel my mouth is dry, I experience shaking hands, I feel my life is meaningless ."Composite reliability for the depression (0.872), anxiety (0.806), stress (0.816) and psychological distress 0.917 (Mutaqqin & Ripa, 2021).

Fear of Covid-19 Scale. The Fear Scale for Covid-19 has been compiled to explore whether respondents experience feelings of worry and fear about Covid-19. The scale consists of 10 (ten) statements with reference to research conducted by Ahorsu et al. (2020) and adjusted to research needs and respondents who will fill it. This scale consists of 4 (four) alternative answer choices (Strongly disagree (score 1), Disagree (score 2), Agree (score 3), and Strongly Agree (score 4). "Covid-19 is life-threatening; my heart beats faster when I think of Covid-19; I feel worried that a

family member or I may be infected with Covid-19". The fear of Covid-19 scale reliability score is 0.861 (Ahorsu, 2020).

Work Engagement Scale. Work engagement in this survey uses the Utrecht Work Engagement Scale (UWES) developed by Schaufeli and Bakker (Kristiana, et al, 2018). Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) define work engagement as a positive and work-related state of mind characterized by vigor, dedication, and absorption. This scale has 9 (nine) statements with 4 (four) alternative answer choices (Never (score 0), Rarely (score 1), Often (score 2), Always (score 3). The item example "I feel enthusiastic about my work," "My work inspires me," and "I am proud of the work I do ."The scale overall person and item interaction α=0.85; person reliability α=0.71, and item reliability α=0.95 (Kristiana et al., 2018).

Table 1
Respondent Demographics

Aspects	Frequency	%
Age		
<30	287	32.70
31-36	410	46.80
>36	180	20.50
Sex		
Male	437	49.80
Female	440	50.20
Study Program		
Internal Medicine	66	7.50
Surgery	77	8.80
Pediatrics	94	10.70
Obstetrics and Gynecology	58	6.60
Neurology	70	8.00
Cardiology and Vascular Medicine	38	4.30
Neurosurgery	9	1.00
Dermatology and Venereology	60	6.80
Psychiatry	26	3.00
Ophthalmology	63	7.20
Otorhinolaryngology, Head & Neck	32	3.60
Physical Medicine and Rehabilitation	64	7.30
Anesthesiology	73	8.30
Radiology	41	4.70
Clinical Pathology	27	3.10

Anatomical Pathology	21	2.40
Clinical Microbiology	15	1.70
Clinical Nutrition	31	3.50
Forensics and Medicolegal Study	12	1.40
Total	877	100

Analysis

Before conducting a more detailed test on whether there is an effect between Fear of Covid-19 and work engagement with psychological distress, a test was conducted on the proposed model (Figure 1) using Amos SEM analysis. The goodness of fit test result has $c^2 = 6398.37$ (not fit, expected to be small). Sign. Probability = 0.000 (not fit: should be higher than 0,05), RMSEA = 0.094 (slightly fit, should be between 0.05 to 0.08), GFI = 0.703 (slightly fit, should be higher than 0.90), AGFI = 0.66 (slightly fit, should be higher than 0.90), AMIN/df = 8.72 (slightly fit, should be less than 5), TLI = 0.74 (slightly fit, should be higher than 0.95), CFI = 0.76 (slightly fit, should be higher than 0.95). The goodness of fit test results shows a slightly fit result (except for c^2 and Sign. Probability).

The SEM analysis (see Figure 2) showed that Fear of Covid 19 affects depression ($b_1 = 0,56$, $p < 0.01$); anxiety ($b_2 = 0,64$, $p < 0.01$); and stress ($b_3 = 0,57$, $p < 0.01$). Furthermore, we also analyze the effect of work engagement on depression, anxiety, and stress. As expected, the results show that work engagement affects depression ($b_4 = -0,27$, $p < 0.01$); anxiety ($b_5 = -0,18$, $p < 0.01$); stress ($b_6 = -0,23$, $p < 0.01$). Based on the indicators model of fit result, it can be concluded that our research is fit thus first hypothesis is accepted.
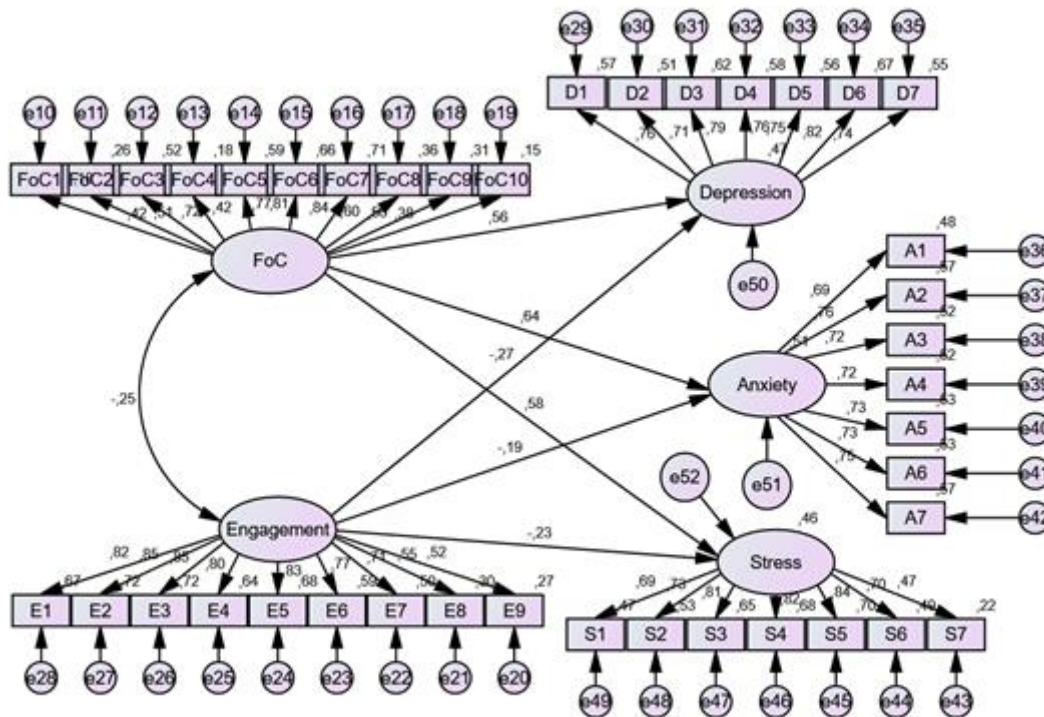
Figure 2. The tested model of the structural relation between fear of covid, work engagement, depression, anxiety, and stress.

Regression analyses were used to test the second and third hypotheses. According to the data, it is found that there is an effect of Fear of Covid-19 on the residents' level of depression, anxiety, and stress, F = 188.25, p < 0.01 (analyzed using SPSS regression). The contribution of Fear of Covid-19 to DAS is 24.9%. Thus hypothesis 1 is supported. The effective contribution of Fear of Covid-19 to DAS is 29.8%. The rest is affected by variables other than Fear of Covid-19.

Table 3

Regression Analysis Hypothesis 2 – Fear of COVID-19 and DAS

Variable	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	SE	Beta (β)		
Constant	-10.29	1.11		-9.27	.000
Fear of covid	.91	.05	.499	17.03	.000

Note. Constant= -10.292, p<.001, R²=.249

Regression analysis with SPSS was also carried out to test hypothesis 3. The analysis results also found that there is an effect of work engagement on the residents' level of depression, anxiety, and stress F = 100.69, p < 0.01 (see Table 3). Thus, hypothesis 3 is supported. Effective contribution work engagement to DAS is 10.3 %. The rest is affected by variables other than employee engagement.

Table 4
Regression Analysis Hypothesis 3 – Work Engagement and DAS

Variable	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	SE	Beta (β)		
Constant	20.38	1.26		16.11	.000
Fear of covid	-.66	.06	-.32	-10.03	.000

Note. Constant= 20.383, p<.001, R^2=.103

As additional information, a correlation analysis was conducted between fear of Covid-19 and work engagement with depression, anxiety, and stress (DAS). Furthermore, the mean work engagement score was 2.06, which is lower than the hypothetical mean of UWES. The results showed that fear of Covid-19 was significantly positively correlated with depression, anxiety, and stress. Meanwhile, work engagement has a significant negative correlation with depression, anxiety, and stress. The complete calculation results can be seen in table 5.

Table 5
Correlation between Fear of Covid and Work Engagement on Depression, Anxiety, and Stress

Variables	M	SD	1	2	3	4	5
Fear of Covid	20.00	5.02	1				
Work engagement	18.55	4.45	-.21[**]	1			
Depresi	2.46	3.22	.45[**]	-.35[**]	1		
Anxiety	2.33	3.03	.49[**]	-.27[**]	.85[**]	1	
Stress	3.23	3.43	.48[**]	-.29[**]	.86[**]	.86[**]	1

**p<.001 N=877

Overall score in DASS-21 shows that around 68.38% of respondents do not experience DAS, 25.94% experience DAS sometimes, 4.71% answered always experience DAS, and only 0.97% felt DAS very often. In the depression aspect, the result shows that 70.48% of respondents have never experienced depression, 24.66% rarely, 3.99% always experience depression, and only 0.86% have a very often depression. The anxiety aspect shows that 71.43% of respondents do not experience anxiety, and only 0.63% experience anxiety many times. Moreover, around 1.43% had stress very often, and 63.22% did not experience stress.

The analysis of residents' fear of Covid-19 showed that 7.92% strongly agreed and 21.60% agreed. Around 29.52% of respondents are afraid of Covid-19, while those who disagreed were 33.10%, and 37.38% said they strongly disagreed. This means that as many as 70.48% of respondents are not afraid of Covid-19. In conclusion, most residents do not agree with being afraid of Covid-19, but there are still around 258 residents who have experienced fear of Covid-19.

This study also showed that the residents' has a fairly good engagement with their duty. Around 24.84% of the respondents always have an attachment to their work, while 58.98% scored often. 14.84% of respondents rarely have attachments, and only 1.32% have never had an attachment to their work.

Discussion

Researchers have conducted several model tests to see the effect of Fear of Covid-19 and work engagement on residents' psychological distress. Based on the analysis results, it is proven that the model we propose is fit so that it can be used for this study. The result showed that fear of Covid-19 and work engagement affect psychological distress.

In the survey regarding the level of psychological distress from the residents, it was shown that 94.32% of respondents did not experience psychological distress. Moreover, only 5.68% of respondents feel very often experiencing depression and anxiety. On the contrary, the research findings amid the previous SARS epidemic, Bai et al. (2004) assessed stress among hospital staff and reported that 5%

experienced acute stress disorder. In another study of long-term psychological depression from the SARS outbreak in healthcare workers, 23% of staff were symptomatic or severe at three years of follow-up (Liu et al., 2012). During the Covid-19 pandemic, the prevalence of depression, anxiety, and stress-related symptoms was 50.7%, 44.7%, and 73.4%, respectively, among Chinese health care workers (Lai et al., 2019). According to this, there is a plausibility that the longer the pandemic, the higher the stress level of the medical staff.

The current study showed that younger residents experience higher stress, anxiety, and depression. This finding was consistent with a study from Australia (Birditt et al., 2020) and Turkey (Elbay et al., 2020; Rahman et al., 2020), suggesting that younger respondents are vulnerable to psychological distress as depression, anxiety, and stress. A plausible explanation is that the older generation handles their emotional reaction better. It was further explained that they also have more experience going through difficult times such as political crises or outbreaks of polio cases.

Furthermore, this study investigated whether fear of Covid-19 among medical residents causes psychological distress. The result showed that fear of Covid-19 had a significant impact on depression, anxiety, and stress level of medical residents. This finding is supported by Zou et al. (2018) argument that experiencing more upsetting events in life and finding it difficult to cope with them are also predictors of anxiety, stress, and depression. Facing the uncertainty of Covid-19 contamination, excessive working hours, and the responsibility as a student are some stressors found in the residents. Moreover, this study replicates findings from a previous study. Bitan et al. (2020) observed that fear of Covid-19 is associated more with anxiety and stress and, to a lesser extent, with depression.

Working with a patient in a Covid-19 pandemic situation is much like working in an actual emergency room, which carries a high risk of patient recovery. Due to the high risk of death, the threat is high when servicing in a Covid-19 pandemic emergency. Instead of providing medical services, the residents may be at an increased risk of getting infected with Covid-19. This can result in the death of both the patient and the medical staff who treat them. There are many emergencies in inpatient care that health workers feel tired of and require physical, psychological, and emotional resilience (Van Mol et al., 2017). The results show a negative correlation between emotional resilience and psychological resilience with work engagement.

However, the results of this study show that although it is the resident's job and responsibility to help in handling Covid-19 patients, only 29.52% of respondents agree that they are afraid of Covid-19. As many as 70.48% said they disagree with having a fear of Covid-19. The situation is likely because the residents already understand their duties and responsibilities as doctors. Furthermore, from the survey on the necessity for mental health services for health workers in Jakarta, it was found that they had a good understanding of the situation and got adequate information about Covid-19 (Lukman, 2020). In another study conducted by Maertens et al. (2020), there are several predictors of fear of the Covid-19, such as intolerance of uncertainty, worry-proneness, and health anxiety. In addition, concerns for the Health of loved ones were the most commonly reported concern and the best predictor of more fear of Covid-19 (Maertens et al., 2020). There are many possibilities that the residents experienced no fear of coronavirus.

This study also found a significantly higher level of fear of Covid-19 among participants who reported having comorbidities with $t = 2.55$, $p < 0.01$, $\bar{x} = 2.65$ (comorbid participants), and $\bar{x} = 2.44$ (non-comorbid participant). It can be concluded that residents with comorbidities experience a higher level of fear of Covid-19 than those of non-comorbid participants. Similar research also found that comorbidities were associated with higher levels of psychological distress, especially during the pandemic (Rahman et al., 2020).

According to our result, work engagement has a negative impact on psychological distress. This result supports our arguments regarding the COR theory that high levels of work engagement promote barriers to negative experiences, including psychological distress. Work engagement is viewed as a surplus resource that helps someone cope with depression, anxiety, and stress. A longitudinal study about the relationship between work involvement and symptoms of anxiety and depression conducted by Innstrand et al. (2012) in different occupational groups, including doctors and nurses, found that work involvement was more likely to cause symptoms of depression and anxiety. It is predicted that the level of depressive symptoms will be lower. There is a negative correlation between work engagement and fatigue.

A person with high work engagement will feel stronger and more enthusiastic about work/proactive behavior (Hakanen et al., 2008) and self-efficacy beliefs (Salanova et al., 2011, Salanova & Schaufeli,

2008) which can protect a person from depressive symptoms. Furthermore, Hakanen and Schaufeli (2012) argue that work engagement has a negative effect on depressive symptoms. This could also mean that work engagement can protect against depression because work engagement is an active and energetic psychological state that encourages the mobilization of resources even in challenging mental states.

A longitudinal study about the relationship between work involvement and symptoms of anxiety and depression conducted by Innstrand et al. (2012) in different occupational groups, including doctors and nurses, found that work involvement was more likely to cause symptoms of depression and anxiety. It is predicted that the level of depressive symptoms will be low. There is a negative correlation between work engagement and fatigue.

Further analysis found that there is no significant difference between the level of engagement and competence and age groups. Meanwhile, there are differences between men and women in terms of work engagement. The data obtained show that women's level of engagement is higher than that of men. This finding is in accordance with Khodakarami and Dirani (2020) research that female medical personnel is more engaged than male employees.

There are several limitations found in this study. First of all, researchers could not deepen the data qualitatively due to the health protocols. We could not follow up with the respondents who have a high fear of Covid, depression, anxiety, and stress. Thus, it is not possible to support the results with qualitative data. This study is also limited to resident respondents who may not be aware of the doctor's level of anxiety. Doctors may likely have different levels of depression, anxiety, and stress (DAS) because they are dealing with patients of Covid-19 more than the residents. In addition, the effective contribution of Fear of Covid-19 to DAS is only 29.8%, which means that more aspects could contribute to depression, anxiety, and stress. Along with it, work engagement effective contribution is only 10.3%. Hence, further research should be conducted.

Conclusion

This study found that the three-variables model studied in this study proved fit, which means a relationship between fear of covid and work engagement with depression, anxiety, and stress (psychological distress). In addition, the result shows an effect of fear of Covid-19 on psychological distress in residents. As explained above, residents have the main task to study. However, due to the uncontrolled Covid-19 pandemic, these residents were also assigned to care for Covid-19 patients. The results of this study showed that there is a significant impact between fear of Covid-19 on psychological distress. This study also shows that work engagement has a significant negative impact on psychological distress.

It was also found that several residents admitted to experiencing fear of Covid-19 (21.60%) and acknowledged that they strongly agreed to experience fear of as much as 7.92 percent. The total number of respondents who agree and strongly agree that they are afraid of Covid-19 is 29.52 percent. This means that 258 respondents agree that they are afraid of Covid-19. Further calculations show that respondents who experience depression both very often and often (4.85% = 42 people), very often and often experience anxiety (0.63%), as well as very often and often experience stress (1.43%). In general, respondents always experience DAS (4.71%) and frequently experience DAS (0.97%). If it is added up, it becomes 5.68%, so that in number, around 49 respondents need further assistance and support.

Furthermore, there is no difference between the level of attachment to the level of education and age. Gender has differences in work engagement. The data obtained show that the level of involvement of women is higher than that of men. This study is in accordance with Allande-Cusso's (2021) research that female medical personnel is more dependent than male medical personnel.

This study suggests that respondents who are afraid of Covid-19, have depression, anxiety, and high levels of stress should receive appropriate care and treatment. Moreover, considering the high risk of getting infected with Covid-19, further investigation into the fear of Covid-19, depression, anxiety, and stress in doctors and health workers is suggested. Based on this research, residents with comorbidity should not deal with cases of the Covid-19 pandemic, and the Covid-19 cases should be taken care of by the senior medical residents. Moreover, the overall mean of work engagement is

lower than the hypothetical mean. Thus hospital should increase their support for medical residents by providing proper compensation, delivering proficiency training in Covid-19 treatment, and increasing cooperation among residents. Finally, the hospital should manage a precise working schedule for medical residents to avoid psychological distress.

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