

# Predictors of Psychosocial Burden among Workers During the COVID-19 Pandemic Period in Indonesia

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# Predictors of Psychosocial Burden among Workers During the COVID-19 Pandemic Period in Indonesia

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## Abstract

Psychosocial burden as a result of the risk of decreasing income and the possibility of being laid off from work is a problem that must be faced by workers during the COVID-19 pandemic. The study was aimed at analyzing predictors of psychosocial burden among workers during the co-19 pandemic period. A total of 6,053 worker respondents were involved in this study. The psychosocial burden was reviewed based on the worries level. There were 4 independent variables involved in the analysis, including age, gender, marital, and education. A multivariate test was performed using binary logistic regression. The results found that the workers in the  $\leq 19$  age group were 1.900 times more likely than the  $\geq 50$  age group to experience a psychosocial burden. The workers in the 40-49 age group were 1.523 times more likely than the  $\geq 50$  age group. Male workers were 0.693 times more likely than female workers to experience a psychosocial burden. The higher education workers were 0.563 times more likely than workers with secondary education. It could be concluded that the 3 variables were proven as predictors of the psychosocial burden among workers during the COVID-19 pandemic period in Indonesia, namely age, gender, and education.

**Keywords:** Mental health, workers, psychosocial burden, health behavior, COVID-19.

## Introduction

The pandemic of COVID-19 is not going to end very soon shortly. There are some arguments to support the statement. The most recent number of COVID-19 cases in the world indicate that the number of new cases was increasing in the past 7 days from July 9<sup>th</sup>, 2020 to July 16<sup>th</sup>, 2020. The detailed information can be accessed in the [www.worldometers.info/coronavirus/](http://www.worldometers.info/coronavirus/). Based on the website, it was also informed that the mortality rate of this disease was around 7% at the global level.

The number of COVID-19 cases in Indonesia has not decreased trend. It can be seen on the official website of the government, namely [www.covid19.go.id](http://www.covid19.go.id). Based on the website accessed on July 15<sup>th</sup>, 2020, the number of COVID-19 cases in Indonesia spread all over the province and district/city. And there is no indication the outbreak will end soon<sup>1</sup>.

The Indonesia government has taken several strategies to stop the chain of transmission of COVID-19. Some of the strategies are issuing Minister of Health Regulation No. 9 of 2020 concerning Large-Scale Social Limitation Guidelines in the context of accelerating the handling of COVID-19. The regulation regulates the restrictions that must be obeyed by the society. These restrictions include schools being closed, public transportation stopped, work from home, and so on. The main idea of the regulation is to lessen the movement of the community<sup>2,3</sup>.

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The impact of these regulations and restrictions have an impact on all sectors of social life, namely religious aspects, economic aspects, aspects of education, and aspects of social psychology. This can be seen from the many facts reported by the mass media about the impact of these restrictions, including the existence of a group of people who still have to work even though the regulation has been enforced in their territory<sup>4</sup>. The longer the Large Scale Social Restrictions, the more violations committed by the community<sup>5</sup>.

The limitation of community mobility during COVID-19 can potentially trigger anxiety in the form of depression and stress on society<sup>6,7</sup>. Anxiety is also reported because of the health beliefs that originate from the large amount of hoax information scattered on social media, which worsens the atmosphere<sup>8-10</sup>. The situation of the mass psychology getting worse due to the theory of conspiracy echoed by celebrities and influencers<sup>11,12</sup>, including conspiracy theories believed by the president of the USA, Donald Trump, as a form of celebrities and influencers resistance to the existence of the power of his government<sup>13</sup>.

Public anxiety can lead to new public health problems. WHO defines health as a good condition in 3 dimensions of human life, namely the physical, social, and mental dimensions<sup>14</sup>. Anxiety is included in an unhealthy condition in WHO's perspective, so special attention is needed to pay close attention to the community's situation, especially in the current outbreak of COVID-19. On the other hand, the rate of unemployment during COVID-19 was increasing due to the situation of pandemic<sup>15,16</sup>. Based on the background description, this study is intended to analyze the predictors of psychosocial burden among workers during the COVID-19 pandemic period in Indonesia.

## Materials and Method

The study was conducted by collecting data through online surveys of people who claimed to have jobs, who are domiciled throughout Indonesia. Data collection was carried out for 8 days (June 6-13, 2020). A total of 6,053 worker respondents were included in this analysis.

Psychosocial burden variables were arranged based on the worries level. The worries level was built based on the assessment of anxiety in 5 aspects of daily life, namely economic, religious, educational, employment, and social aspects. The questions in the questionnaire

were arranged with five answer choices (Likert scale). Assessment of the worries level by adding up scores from 5 aspects measured, then dividing it into 2 categories of psychosocial burden, which were not worried and worried.

Four independent variables were included in the analysis. The four variables are age group, gender, marital status, education level. Age group was the respondent's acknowledgment of the last birthday that has passed. Age groups were divided into 6 categories, namely  $\leq 19$ , 20-29, 30-39, 40-49, and  $\geq 50$ . Gender was divided into 2 categories, namely male and female. Marital status consists of 3 categories, namely single, married, and divorced/widowed. Education level was the respondent's recognition of the level of education that has been passed. Education level was divided into 2 categories, namely secondary and below, and higher.

The variables involved in this study, both dependent and independent, were dichotomous variables. Researchers used the bivariate test at an early stage with the Chi-Square test. This initial test was to select the independent variables that will be included in the next test phase. The multivariate test at the final stage was carried out using binary logistic regression to determine the predictors of psychosocial burden among workers during the COVID-19 pandemic period in Indonesia. All stages of analysis in this study were carried out with the help of SPSS software version 22.

## Results and Discussion

Table 1 is a display of descriptive statistics of the characteristics of worker respondents. It can be seen that workers who have a psychosocial burden are dominated by workers who are in the age group of 20-29 and have female gender.

Based on marital status, the married workers dominate groups that have a psychosocial burden. While based on education level, the workers who have higher education dominate both categories of the psychosocial burden.

Information about the result of the binary logistic regression of psychosocial burden among workers during the COVID-19 pandemic period in Indonesia is presented in Table 2. All selected variables are included in this final analysis.

**Table 1. Descriptive Statistics of Respondent Characteristics (n=6,053)**

Variables	The psychosocial burden				P
	Not worried		Worried		
	n	%	n	%	
<b>Age groups</b>					***< 0.001
≤ 19	16	1.7%	131	2.6%	
20-29	234	25.2%	2028	39.6%	
30-39	238	25.6%	1401	27.3%	
40-49	229	24.7%	992	19.4%	
≥ 50	211	22.7%	573	11.2%	
<b>Gender</b>					***< 0.001
Male	414	44.6%	1716	33.5%	
Female	514	55.4%	3409	66.5%	
<b>Marital status</b>					***< 0.001
Single	242	26.1%	1861	36.3%	
Married	652	70.3%	3110	60.7%	
Divorced/Widowed	34	3.7%	154	3.0%	
<b>Education level</b>					***< 0.001
Secondary and below	160	17.2%	1609	31.4%	
Higher	768	82.8%	3516	68.6%	

Note: \*p <0.05; \*\*p <0.01; \*\*\*p <0.001.

**Table 2. The result of binary logistic regression of psychosocial burden(the worries level) of community in Indonesia, 2020 (n=6,053)**

Variables	The psychosocial burden			
	Sig	OR	Lower Bound	Upper Bound
Age groups: ≤ 19	*0.041	1.900	1.026	3.519
Age groups: 20-29	***< 0.001	2.652	1.999	3.518
Age groups: 30-39	***< 0.001	1.992	1.607	2.470
Age groups: 40-49	***< 0.001	1.523	1.227	1.889
Age groups: ≥ 50	-	-	-	-
Gender: Male	***< 0.001	0.693	0.598	0.803
Gender: Female	‡	‡	‡	‡
Marital status: Single	‡	‡	‡	‡
Marital status: Married	0.112	1.210	0.957	1.532
Marital status: Widowed/Divorced	0.690	1.094	0.702	1.706
Education Level: Secondary	-	-	-	-
Education Level: Higher	***< 0.001	0.563	0.458	0.692

Note: \*p <0.05; \*\*p <0.01; \*\*\*p <0.001.

Table 2 shows that the workers in the  $\leq 19$  age group were 1.900 times more likely than the  $\geq 50$  age group to experience a psychosocial burden (OR 1.900; 95% CI 1.026-3.519). The workers in the 20-29 age group were 2.652 times more likely than the  $\geq 50$  age group to experience a psychosocial burden (OR 2.652; 95% CI 1.999-3.518). The workers in the 30-39 age group were 1.992 times more likely than the  $\geq 50$  age group to experience a psychosocial burden (OR 1.992; 95% CI 1.607-2.470). The workers in the 40-49 age group were 1.523 times more likely than the  $\geq 50$  age group to experience a psychosocial burden (OR 1.523; 95% CI 1.227-1.889). Information from the results of this analysis shows that age is a predictor of psychosocial burden among workers during the COVID-19 pandemic period in Indonesia. The workers who have the oldest age have the lowest possibility to experience psychosocial burdens.

Age as a predictor of psychosocial burden is also reported in several studies in various countries<sup>17-19</sup>. Older age is directly proportional to more life experiences. The senior workers have a more coping mechanism in dealing with uncertain situations during the COVID-19 pandemic period<sup>20,21</sup>.

Table 2 informs that male workers are 0.693 times more likely than female workers to experience psychosocial burden (OR 0.693; 95% CI 0.598-0.803). The results of this analysis indicate that gender is a predictor of psychosocial burden among workers during the COVID-19 pandemic period in Indonesia. The female workers have a higher chance of experiencing psychosocial burden.

Consistent information was also found in previous studies. The female group was reported to have more potential to experience mental disorders in the form of depression and anxiety compared to the male group<sup>22</sup>. Male workers are considered more able to cope with uncertainty pressures during the pandemic than female workers<sup>23</sup>.

Table 2 shows that workers with higher education are 0.563 times more likely than workers with secondary education to experience psychosocial burden (OR 0.563; 95% CI 0.458-0.692). This information shows that education level is a predictor of psychosocial burden among workers during the COVID-19 pandemic in Indonesia. Higher education has a lower probability of experiencing psychosocial burden.

Better education is directly proportional to the ability of workers to respond to the COVID-19 pandemic situation. Educational factors make a person able to understand information and digest the situation better so that they are better prepared to deal with uncertain situations during the COVID-19 pandemic<sup>24,25</sup>. Several previous studies inform that education is often found as a positive predictor of health sector performance<sup>26-28</sup>.

## Conclusions

Based on the results of the analysis it could be concluded that 3 variables were proven to be predictors of the psychosocial burden among workers during the co-19 pandemic period in Indonesia. The four variables were age group, gender, and education level.

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**Conflict of Interest:** The authors declare no conflict of interest, financial or otherwise.

**Ethical Clearance:** This study of the psychosocial burden of community during the COVID-19 pandemic period in Indonesia has received ethical approval from the national ethics commission (No: RK.05/KEPK/STIK/VIK/2020). The respondents' identities have all been deleted from the dataset. Respondents have provided written approval for their involvement in the study.

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