

## ORIGINAL ARTICLE

# Health Problems and Related Factors during Work from Home (WfH) in Female Workers throughout COVID-19 Outbreak in Indonesia: A Cross-Sectional Study

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## ABSTRACT

**Introduction:** The Indonesian government has adopted a policy of implementing Work From Home (WFH) to prevent the increasing number of Covid-19 transmissions. The enforcement of WFH has an impact on the health of female workers. Health problem was the certain health disorders that arise in a person are caused by certain situations. The purpose of this study was to examine the prevalence of health problems and related factors in female workers during the COVID-19 outbreak in Indonesia. **Methods:** We applied to the online survey during the second year of pandemic COVID-19 in Indonesia, between April and June 2021. This cross-sectional study is data acquired from an online survey by 102 female workers. We classify female workers into several groups based on their health problems, such as age, education level, occupation, and marital status. We collected the data, then examined it statistically. **Results:** From the total of female workers respondents, the prevalence of health problems was 54%. Furthermore, after statistical examination, we found out that the occupation factor has a correlation with health problems, and the teachers/lecturers had the biggest percentage of health problems, as much as 61.2%. **Conclusion:** There were a lot of female workers who had health problems during the COVID-19 pandemic, which related to her occupation.

**Keywords:** Health Problem, Female Workers, COVID-19

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## INTRODUCTION

The 2019 Novel coronavirus (2019-nCoV) has spread since the end of 2019 in Wuhan, then spread into the world including Indonesia (1-3). World Health Organization (WHO) has given the name of this virus to coronavirus disease 2019 (COVID-19) (4). In Indonesia, the first case was reported at 2 March 2020. Since that time, the numbers of positive cases and deaths have increased (5).

Since the first year, COVID-19 has affected all sectors of life, such as the economic, health, tourism, and education sectors. Because of the COVID-19 pandemic, all sectors have implemented the Work From Home (WFH) policy. Employees should do their work at home. This policy was taken to reduce human mobility and implement social distancing to suppress the transmission of that virus. The government hopes that with this policy, the number of COVID-19 transmissions can be reduced

(6-9).

On the other hand, this policy has consequences. The results of a study conducted by Caraka, et al., during the COVID-19 pandemic, there were disturbing disturbances in the economic, industrial, corporate, and real fields that occurred in all levels of society due to large-scale restrictions in Indonesia (10). As well as the results of the last research conducted by Simamora, WFH policies also have the impact on the world of education, both positive and negative impacts experienced by students during online learning (11).

From the perspective of policy actors, the existence of this WFH policy will certainly have its own impact. From the results of the latest studies, it is known that women have a role at home as wives and mothers. She has responsibilities for educating children and taking care of the household (12-13). The existence of this responsibility requires expertise and energy, especially if the woman is a worker. The conflict that occurs due to dual roles, as a house-wife and a worker (14). Therefore, this study aimed to evaluate the prevalence of health problems and related factors on female workers during the COVID-19 outbreak in Indonesia. The results of this

study are expected to contribute to the implementation of the policies that will be implemented by the Indonesian government and also the world in the future.

**MATERIALS AND METHODS**

**Participant and Procedure**

This cross-sectional study was conducted using a self-report questionnaire tool that was taken online from April to June 2021. This online survey was directed to avoid physical collection between researchers and respondents so they can keep away from virus transmission.

We created an online questionnaire through Google Forms and distributed it to the respondents online. The beginning of the questionnaire was an explanation about the study. The respondents were required to fulfill the informed consent, which gave information that they agreed to participate in this study.

Furthermore, the second part of the questionnaire included basic demographic information from respondents, such as age, education, occupation, marital status, and domicile. Then, the following part contains the questions about health problems experienced. The questionnaire contains statements that a likert scale from 1 to 5. "1" means disagreeing with that statement, "2" means disagreeing with that statement, "3" means no matter with that statement, "4" means agreeing with that statement, and "5" means really agreeing with that statement. The respondents to this study were women who have an occupation and implemented Work From Home (WFH) during pandemic COVID-19. The inclusion criterion was a women worker who worked at home during the COVID-19 outbreak.

In this study, we used purposive sampling to choose the respondents. There are women who have a job (employee). From 111 respondents who filled our questionnaire, there were 102 participants who were suitable for the requirements.

**Data Analysis**

Firstly, we carry out sorting the data according to predetermined inclusion and exclusion criteria. We got 102 respondents who are ready to be processed. Then all data were mapped according to the characteristics of the respondents in the form of age, education, type of work, marital status, and domicile in tabular form.

After that, we counted how many respondents experienced health problems during the WFH implementation. Then, we calculated the number of respondents who had health problems during WFH, based on several factors, such as their ages, education level, the type of work, and marital status. All data is presented in tabular form and calculated with absolute values and percentages.

Lastly, the data examines using the SPSS approach to see the correlation between all related factors above and the health problems experience by female workers during pandemic COVID-19. This study used IBM SPSS Statistics version 28.0.1.1 to explore the data. Variables are called related if they have a significant value less than 0.05. All of these processes are shown in figure 1.

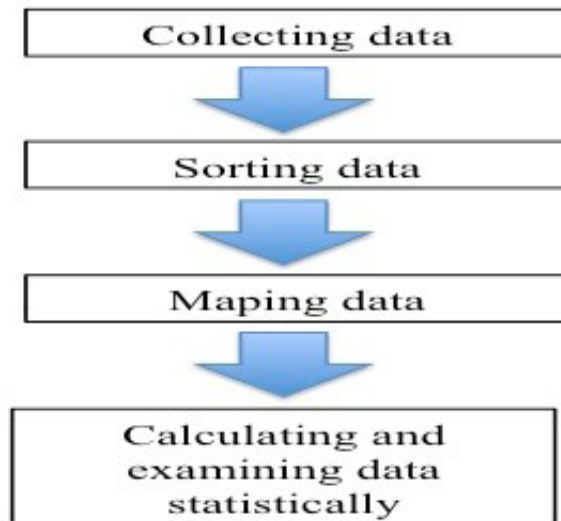


Figure 1: Data analysis process

**Ethical Considerations**

This study received ethical approval from the Health Ethics Committee, Faculty of Medicine and Health, University of Muhammadiyah Jakarta Number 046/PE/KE/FKK=UMJ/II/2021.

**RESULTS**

From table I, it can be seen that the female workers who have an age range between 31-35 years, were followed by the majority of the respondents, which is 39%. Most of the respondents have Bachelor/Master/Doctor education, namely 97%. For the type of work, most of the respondents 66% work as a teacher/lecturer. Then, for marital status, most of the respondents are married women, which is 80%. Furthermore, most of the respondents' domicile are in Central Java and Yogyakarta in the number of 45%.

Table II shows that 54% of respondents experienced health problems during the implementation of WFH in their organization.

From the table III, it is known that the number of respondents who had health problems in every group. From significant value columns, we can say that the occupation factor correlated with health experiences, because it has 0.043 significant value is less than 0.05.

In addition, Figure 2 shows the kind of health problems in female workers. The most common type of disorder is headache, namely 25%. Then, 25% of total respondents has no disorders during WFH.

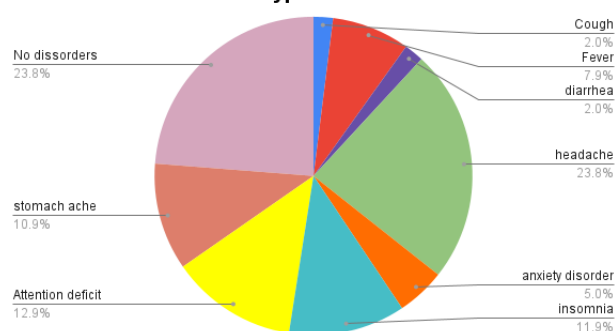
**Table I: Women Employee demographic characteristics**

Variables	Number (n)	Percentages (%)
Age (years)		
20-25	5	5.0
26-30	33	32.0
31-35	40	39.0
36-40	10	10.0
41-45	9	9.0
46-50	2	2.0
>50	3	3.0
Education Level		
Elementary/Junior/Senior High School	3	3.0
Bachelor/Master/Doctoral	99	97.0
Occupation		
Teacher/Lecturer	67	66.0
Employee	29	28.0
Entrepreneur	6	6.0
Marital Status		
Unmarried	18	18.0
Married	82	80.0
Widow/widower	2	2.0
Hometown		
DKI Jakarta	10	10.0
West Java and Banten	32	31.0
Central Java and Yogyakarta	46	45.0
East Java	3	3.0
Other Java Island	11	11.0

**Table II: Number of respondents with health problems and without health problems**

Health Problems	Number (n)	Percentage (%)
No Health Problems	47	46.0
With Health Problems	55	54.0

**Distribution of Types of Health Problems**



**Figure 2: The kinds of health problem on female workers during pandemic COVID-19**

**DISCUSSION**

The spread of the Corona Virus 2019 (COVID-19) affected all sectors implementing the Work From Home (WFH) policy. This policy was intended to suppress the spread of COVID-19 (6-9,15). In this study, it was

**Table III: Related Factors Analysis of Work from Home (WfH)**

Variables	Number (n)	Frequency (%)		Sig.
		Health problem	No health problem	
Age (years)				0.924
20-25	5	4(80.0)	1(20.0)	
26-30	33	19(57.6)	14(42.4)	
31-35	40	18(45.0)	22(55.0)	
36-40	10	6(60.0)	4(40.0)	
41-45	9	4(44.4)	5(55.6)	
46-50	2	2(100.0)	0(0.0)	
>50	3	2(66.7)	1(33.3)	
Education Level				0.483
Elementary/Junior/Senior High School	3	1(33.3)	2(66.7)	
Bachelor/Master/Doctoral	99	54(54.5)	45(45.5)	
Occupation				0.043
Teacher/Lecturer	67	41 (61.2)	26 (38.8)	
Employee	29	12 (41.4)	17 (58.6)	
Entrepreneur	6	2 (33.3)	4 (66.7)	
Marital Status				0.217
Single	18	8 (44.4)	10 (55.6)	
Married	82	48 (58.6)	34 (41.4)	
Widower	2	1 (50.0)	1 (50.0)	

found that 54% of all respondents had health problems during the implementation of WFH. It was in line with previous study, which showed that working women might experience conflict between work and family life slightly more often than working men. This can affect their health (16). As we know, women have a double role at home, as a mother and employee. It caused a work-family conflict, which will influence employee performance (17). In this case, family support very needed for women. From study, we know that family support has influence on satisfaction in both the work and family domains (18).

From recent studies, there was an influence of work characteristics and family roles on work-family conflict. The jobs that require a lot of preparation are more complicated, and also take time to cause work-family conflict (19-20). This work-family conflict can affect their health problems (16). From several group jobs in this study, teacher/lecturer has the bigger responsibility, especially on distance learning during pandemic COVID-19. They should prepare learning tools, evaluation tools, lesson plans, etc., before work. It might affect their health. It is related with this study that after evaluating the significant value, we could see that occupation correlated with health problem experiences in female workers during WfH. Furthermore, teachers/lecturers was the bigger group of respondents who got health problems during WfH.

On the other hand, from the last study, married working women have multiple responsibilities at home and

work than non-married woman, and it was known as a psychological impact. In a study, it was stated that married working women would try to balance their responsibilities between family and work. As a result, they got more work pressure in home management, dealing with family, and supervisors at work. The implementation of WFH can trigger work-family conflicts, which can affect their lives or quality of work. The last study reported that women who have multiple roles will have fatigue and eventually have more psychological problems, like somatic complaints, social dysfunction, anger, and hostility (12,14,21). Furthermore, the existence of this WFH policy causes working hours longer than scheduled. It also had an impact on employees, both men and women (22). All of the last study above was agreed with this results, that married female worker respondents were the biggest group which had health problems. But, after statistical analysis, it has significant value; more than 0,05. It was defined that in this study, marital status was not correlate with health problems. It might be due to the uneven distribution of the respondents' marital status. This could be an improvement in further research.

In addition, the most common health problem was headache, as much as 25%, which was affected by too much pressure and responsibility held by women employee at home (17,23). Furthermore, we concluded that headache was the most health problem which found from all of the respondents, namely 23.8%. After that, the attention deficit as much as 12.9%, insomnia 11.9%, stomach ache 10.9%, fever 7.9%, anxiety disorder 5.0%, cough 2.0%, and diarrhea 2.0%.

After seeing the results of this research, we hoped that decision-makers could pay more attention to these problems, to reduce the incidence of health problems, especially for female workers. From the last study, it was known that the WFH policy taken to reduce exposure to COVID-19 could cause problems for the mental health and welfare of its workers (24).

## CONCLUSION

The conclusion from this study is the prevalence of health problems in female workers during the COVID-19 outbreak in Indonesia was 54%. Furthermore, that health problem was related to her occupation.

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