Stress Management and Subjective Well-Being of the Health Workers Dealing with Covid-19

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The COVID-19 pandemic has changed the lives of health workers’ families. The changes have an impact on the family welfare. The impact depends on how the family manages stress during an unstable situation like the COVID-19 pandemic. This study aims to analyze the effect of family and work characteristics, stressors, coping strategies, and stress symptoms on subjective family well-being. This study used a structured online questionnaire as a data collection tool. The data involved Health Workers from the DKI Jakarta area, which consisted of 100 health workers handling Covid-19 (60 Health Professionals and 40 Health Support Personnel). Data were processed and analyzed using Microsoft Office Excel 2016, SPSS 25.0, and SmartPLS 3.3.2. Data analysis using descriptive analysis, independent sample t-test, and SEM analysis. Based on the research results, health support personnel are more likely to perceive the source of the problem due to changes and work compared to health professionals. The lower the stressors and stress symptoms, the more the subjective family well-being increases. Meanwhile, the stressors and symptoms of stress are variables that mediate subjective family well-being. The results of this study could serve as a consideration for intervention for related parties in the event of a new pandemic situation in the future.

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1. Introduction

World Health Organization declared Covid-19 a global pandemic because it has spread to various countries. Covid-19 has been recorded to have entered the territory of Indonesia since the beginning of 2020 or precisely in March 2020. According to the Crisis Center of the Ministry of Health, the most significant proportion of Covid-19 cases in Indonesia is the DKI Jakarta area. DKI Jakarta experienced the highest increase in Covid-19 cases in December 2020, reaching 1,899 positive cases (Ministry of Health, 2020).

The pandemic situation provides changes to daily activities that can lead to a decline in welfare. In general, families in Indonesia experienced a decrease in psychological well-being followed by an increase in stress symptoms due to the state of the Covid-19 outbreak (Sunarti, Prayitno, & Ramadhan, 2020). The health workers in this study consisted of health professionals and health support personnel. Regarding work, health workers who work at the highest risk, such as working in the ER room, ICU, or the part that treats Covid-19 patients directly, have lower welfare (Evanoff et al., 2020). This means that the achievement of welfare in the families of health workers decreases when experiencing the Covid-19 pandemic, so it requires stress management as a manager of situation instability.
The Covid-19 outbreak caused several sources of stress to the family, such as financial problems/economic difficulties, and job losses (Gayatri, 2020; Sunarti, Prayitno, et al., 2020). In addition, being a health worker during the Covid-19 pandemic has stressors due to seeing many colleagues and patients who died and were infected with the virus. When viewed based on the type of work of health workers, health workers such as doctors and nurses feel more anxious and nervous than other health workers (Cai et al., 2020). The risk of stress reactions caused to individuals emphasizes the need for effort and the ability to maintain family coping and resources (Wu & Xu, 2020). According to Sunarti and Syahrini (2011), a decrease in stress levels can occur when coping strategies focus on problems. Coping strategies can mediate stress buffers with simultaneous role demands and help manage pressure sources (Bhangoo, 2015). The state of the Covid-19 pandemic can provide an idea of how families can deal with the crisis by managing pressure to achieve family goals. Therefore, this study aims to determine the effect of stress management on the subjective well-being of the families of health workers who handle Covid-19 cases.

2. Literature Review

Covid-19 has brought uncertainty to family life. Families become unstable during the Covid-19 pandemic. Whereas conceptually, through a structural-functional theory approach, families need to maintain system stability to achieve family goals (Gillani, Shafiq, Ahmad, & Zaheer, 2021; Megawangi, 2014). An indicator of achieving family goals is the achievement of family welfare. According to Sunarti (2013), family welfare is achieved through managing family resources and managing problems effectively. Family welfare can be measured objectively and subjectively (Sunarti, 2013). Subjective well-being shows a feeling or opinion regarding a situation or event that occurs to a person, either physically, socially, or psychologically. According to Lian and Tam (2014), increasing well-being when coping successfully prevents symptoms of stress due to the source of stress obtained. Sunarti, Kamilah, Almas, and Pitriani (2020) revealed that the subjective well-being of the family is influenced by the husband’s age, family income, husband’s education, and coping strategies. As for the work side, according to Achour and Boerhannoeddin (2011), job demands, such as working hours, impact family welfare. Therefore, this study suspects the influence of family characteristics, work characteristics, sources of stress, coping strategies, and symptoms of stress on the subjective well-being of the family.

The pandemic condition is a source of external pressure affecting family resources. Stress theory can explain the family process in dealing with crises or uncertain sources of stress. It does not result in excessive stress and can achieve family welfare through good problem-solving strategies (Wu & Xu, 2020). The source of stress is the respondent’s view of an event that is a source of problems during the Covid-19 pandemic. The stressors suspect influenced by family and work characteristics. Sources of stress interact with family perceptions, family resources, and the level of family stress symptoms that external factors can cause, either from a person or an uncertain environment outside the family system (Jensen, 2021).

Uncertain external environmental conditions encourage families to be able to adapt through special coping strategies. Coping strategy is an active process carried out by individuals and families as a unit in managing, adapting, and/or dealing with stressful situations (Sunarti, 2013). The strategies used can be in the form of avoidance and approach coping strategies. The strategy used allegedly depends on several factors, such as family and work background and the source of stress experienced. The strategy used by each family is different depending on the source of the pressure it faces (Lian & Tam, 2014). Coping strategies with positive attitudes tend to have a stress impact and increase the subjective well-being of families (Flesia et al., 2020; Sunarti, Prayitno, et al., 2020).

Symptoms of stress can increase or decrease if there are factors that influence it. These factors are thought to come from family and work backgrounds, sources of stress, and coping. Symptoms of stress are changes in behavior experienced both physically and emotionally due to the source of the pressure they are facing. In their research, Evanoff et al. (2020) found that family income and the number of children can affect the prevalence of stress and be related to mental well-being. The state of the pandemic becomes an external factor that can cause symptoms of stress if it is not managed properly.
Based on previous research, sources of stress, coping strategies, symptoms of stress, and subjective well-being of families during the Covid-19 pandemic are still being studied separately, so it is important and interesting to study simultaneously to evaluate and provide recommendations to families of health workers. In particular, this study focuses on several objectives, namely (1) identifying family characteristics, work characteristics, sources of stress, coping strategies, stress symptoms, and subjective well-being of families of health workers dealing with Covid-19; (2) analyzing the differences in sources of stress, coping strategies, stress symptoms, and subjective well-being of families based on the type of work of health workers dealing with Covid-19; and (3) analyze the influence of family characteristics, job characteristics, sources of stress, coping strategies, and stress symptoms on the subjective well-being of the families of health workers dealing with Covid-19.

3. Method
3.1 Research Design and Procedure
This investigation uses a cross-sectional-study design with retrospective methods, namely research conducted by digging up information that has happened to health workers over the past three months. The selection of research locations was selected purposively, namely DKI Jakarta Province. DKI Jakarta was chosen as a research location because based on data from the Crisis Center of the Ministry of Health, the DKI Jakarta area is the region with the highest proportion of Covid-19 cases in Indonesia (Ministry of Health, 2020). Data was collected from April to June 2021. This research uses a purposive sampling method involving 100 health workers, divided based on the type of work of health professionals and health support personnel. The data type used is primary data obtained from self-reporting methods using google forms distributed through email and WhatsApp respondents.

3.2 Instruments
The sources of stress in the study were divided into dimensions of tension in the family; spousal tensions; financial and business problems; change problems and work problems; loss, disease problems, and care. Stressors file instruments (Family Inventory of Live Events and Changes) by McCubbin, Patterson, and Wilson (1996) with 21 items. This questionnaire uses an assessment of the choice of answers 0 = no, 1 = yes. Cronbach alpha reliability value on this instrument is 0.819.

Coping strategies consist of self-distraction, active coping, denial, emotional support, informational support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame. The total statements in this questionnaire amounted to 13 statements divided into two categories of coping, namely avoidant coping and approach coping, from the BRIEF-COPE instrument by Carver (1997). The answer category consists of 0 = never, 1 = sometimes, 2 = rarely, 3 = often, 4 = always. Cronbach alpha reliability value on this instrument is 0.767.

Symptoms of stress consist of symptoms of malaise and mood from Mirowsky and Ross (2002) consisting of 27 statement items, with 15 items from the mood dimension and 12 items from the malaise dimension. The answer category consists of 0 = never, 1 = sometimes, 2 = rarely, 3 = often, 4 = always. Cronbach alpha reliability value on this instrument is 0.964.

The subjective well-being of the family uses a questionnaire from Sunarti and Syahrini (2011) consisting of 3 dimensions, namely the physical-economic, social, and psychological dimensions. The number of items in this questionnaire is 17 items. The answer choice consists of 1 = dissatisfied, 2 = quite satisfied, 3 = satisfied, 4 = very satisfied. Cronbach alpha reliability value on this instrument is 0.957.

3.3 Data Analysis
Data were analyzed using the Statistical Package for Social Sciences (SPPS) 25.0 for windows and Smart Partial Least Square (SmartPLS) applications. Data analysis used based on research objectives consists of descriptive analysis and inference analysis (analysis of different tests and influence tests). SEM model evaluation using SmartPLS consists of measurement model evaluation and model match test. Convergent validity tests are indicated through AVE (>0) values.5), the reliability test indicated through composite reliability (CR) value above 0.5,
the loading factor value (>0.5), and test the validity of the discriminant seen through the cross-loading value (>0.5) (Table 1).

Table 1: Convergent Validity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Characteristics</td>
<td>0.879</td>
<td>0.946</td>
<td>0.915</td>
<td>0.730</td>
</tr>
<tr>
<td>Job Characteristics</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Sources of Stress</td>
<td>0.795</td>
<td>0.843</td>
<td>0.837</td>
<td>0.284</td>
</tr>
<tr>
<td>Coping Strategy</td>
<td>0.773</td>
<td>0.781</td>
<td>0.831</td>
<td>0.339</td>
</tr>
<tr>
<td>Symptoms of Stress</td>
<td>0.965</td>
<td>0.967</td>
<td>0.968</td>
<td>0.560</td>
</tr>
<tr>
<td>Subjective family well-being</td>
<td>0.957</td>
<td>0.959</td>
<td>0.961</td>
<td>0.595</td>
</tr>
</tbody>
</table>

4. Result

The average age of health professionals is 29.35 years with the average age of the couple being 28.82 years. The youngest age of a health professional and his partner is 21 years old. Meanwhile, the average age of health support workers is 30.80 years with the average age of couples being 31.40 years (Table 2). Based on these results, it can be said that both the age of the respondent and their partner are in early adulthood.

Table 2: Distribution of Family and Work Characteristic Data by Work Types of Health Workers

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Types of Jobs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health professionals</td>
<td>Health support personnel</td>
</tr>
<tr>
<td></td>
<td>Min-Max</td>
<td>Mean ± Std. Deviation</td>
</tr>
<tr>
<td>Age of respondent (years)</td>
<td>21-48</td>
<td>29.35 ± 5.40</td>
</tr>
<tr>
<td>Couple age (years)</td>
<td>21-50</td>
<td>28.82 ± 5.34</td>
</tr>
<tr>
<td>Length of respondent’s education (years)</td>
<td>15-18</td>
<td>15.85 ± 1.07</td>
</tr>
<tr>
<td>Length of couple’s education (years)</td>
<td>12-19</td>
<td>15.15 ± 1.67</td>
</tr>
<tr>
<td>Total income (thousand rupiahs)</td>
<td>1000-35000</td>
<td>11905 ± 6921</td>
</tr>
<tr>
<td>Per capita income (thousand rupiahs)</td>
<td>500-17500</td>
<td>4659 ± 3391</td>
</tr>
<tr>
<td>Big Family (person)</td>
<td>2-5</td>
<td>3 ± 0.97</td>
</tr>
<tr>
<td>The age of the last child (years)</td>
<td>0-14</td>
<td>2.20 ± 3.33</td>
</tr>
<tr>
<td>Length of Working hours (hours)</td>
<td>3-12</td>
<td>8.17 ± 1.86</td>
</tr>
</tbody>
</table>

The average length of education of health professionals is 15.85 years and for health support personnel is 15.95 years or equivalent to undergraduate. As for the average large family of respondents, there are three people with the average age of the last child, which is 2.31 years. Health professionals have an average total income of Rp 11,905,000.00 and an average per capita income of Rp 4,659,722.00. Meanwhile, the average income of health support workers is Rp 9,921,000.00 and the average per capita income of supporting workers is Rp 3,676,250.00. Based on these results, both health professionals and health support personnel fall into the category of families not poor. Although in the conditions of the Covid-19 pandemic as the forefront of dealing with Covid-19 patients, the average respondent worked for 8.27 hours a day.

Table 3: Average Index and Test Different Variables of Stress Sources, Coping Strategies, and Stress Symptoms Based on the Type of Work

<table>
<thead>
<tr>
<th>Variable</th>
<th>Index average</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health professionals</td>
<td>Health support personnel</td>
</tr>
<tr>
<td>Sources of stress</td>
<td>31,83</td>
<td>34,63</td>
</tr>
<tr>
<td>Tensions in the family</td>
<td>29,17</td>
<td>32,08</td>
</tr>
<tr>
<td>Spousal tensions</td>
<td>33,33</td>
<td>26,25</td>
</tr>
</tbody>
</table>
There are significant differences in the dimensions of change problems and work problems. Health support personnel are more experienced in issues of transformation and work problems compared to health professionals (Table 3). Meanwhile, the results showed that there was no significant difference between health professionals and health support workers in using coping strategies during the pandemic. However, the pandemic situation creates uncertainty in family activities. This shows that health workers tend to respond positively to pandemic conditions by taking action, planning, accepting circumstances, seeking support, and managing emotions. The same results on the symptoms of stress and the subjective well-being of the family showed no significant difference.
The results of the influence test showed that the age of the respondents, husband, and last child, as well as the size of the family (β = -0.153, t>1.96) had a direct negative effect on stress symptoms. The source of stress showed a positive effect (β = 0.547, t>1.96) on stress symptoms. The results of the model of the influence of family characteristics, work characteristics, sources of stress, and coping strategies for stress symptoms showed an R-Square number of 0.442. Another finding from the influence test in this study is that the length of working hours (β = 0.205, t>1.96) has a positive effect on the source of stress. The test results of the model of the influence of family characteristics and work characteristics on the source of stress showed an R-Square number of 0.049 (Figure 1). Based influence tests showed that the source of stress (β = -0.306, t>1.96) had a direct negative effect on the subjective well-being of the family. Sources of stress (β = -0.271, t>1.96) also have a significant negative indirect effect on the subjective well-being of the family (Table 4).

5. Discussion

The subjective well-being of the family is influenced directly and indirectly by the source of stress. The findings of this study are that there is an influence of sources of stress and symptoms of stress on the subjective well-being of the family. These results indicate that the lower sources of stress and symptoms of stress affect the subjective well-being of families of health workers who treat Covid-19 patients. Based on the research results of Windarwati et al. (2021), which is the main factor in decreasing stress symptoms due to the demands they experience, namely working together with colleagues to maintain enthusiasm and consider these demands as work that must be carried out. Besides that, Symptoms of stress directly show a significant influence on the subjective well-being of the family.

The lower the symptoms of stress experienced, the more the subjective well-being of the family increases. The results of Octaviani, Herawati, and Tyas (2018) showed the same results that stress affects family welfare subjectively. Most families experience symptoms of depression in the form of much energy that must be expended in daily activities and also feel unable to go anywhere. This is under the conditions that occurred during the research, namely being in a pandemic condition that limits family activities outside the home because there are PPKM rules (Enforcement of Restrictions on Community Activities). The feeling of being surrounded by being unable to go anywhere has a positive impact on intensive communication activities with the family (Sunarti, Prayitno, et al., 2020). Because of this condition, the family still feels satisfied with the condition of food, harmony between families, and feelings of security and happiness.

The finding of this study is that there is an influence between the source of stress and the symptoms of stress. During the COVID-19 pandemic, many families feel the stressors of financial and business problems. This is supported by the research results of Sunarti, Kamilah, et al. (2020) that almost all families during the Covid-19 pandemic have sources of stress that come from financial and business problems. The Covid-19 pandemic has had an impact on the decline in income. Based on the results of Kurniash (2020), in general, family income during the pandemic tends to decrease. These factors can be a strong reason that can have an impact on stress symptoms. This statement is supported by the findings of Sunarti and Syahrini (2011) that sources of stress such as financial and business problems have a strong impact on the symptoms of stress experienced.

The impact of the source of stress experienced will cause symptoms of stress, so a strategy is needed to reduce this effect. The family's strategy in dealing with stress can depend on the source of the stress experienced. Coping strategies can be considered as a buffer between the source of stress and the symptoms of stress to achieve well-being. However, the results in this study did not show a direct or indirect effect on subjective family well-being. Research conducted by Zacher and Rudolph (2021) states the same results that are coping strategies during a pandemic are not significant for subjective well-being. When drawn from stress theory (Lazarus & Folkman, 1984), it can be stated that a person simultaneously evaluates the events he faces and interactions with his environment.

This research shows the influence of family characteristics such as age and family size on stress symptoms. This can be seen from the average age of the health workers in this study, 29.93 years, classified as young adults, causing the low symptoms of stress experienced. The results of research on health workers during the Covid-19 pandemic in PPKM.
Hubei, China, showed that those under 31 years of age were less likely to experience concern for their families due to the pandemic situation than those aged above (Cai et al., 2020). Likewise, the average age of a partner (29.85 years), which is in the young adult group affects the decrease in symptoms of stress experienced. Overall, young adults will tend to experience symptoms of stress. As in the study of Stanton et al. (2020), 18-45 years of age tend to experience symptoms of stress during the Covid-19 pandemic. However, this is thought to be only the first reaction due to changing conditions, so the following months tend to experience a decrease in stress symptoms (Kujawa, Green, Compas, Dickey, & Pegg, 2020).

The number of family member’s as many as three people with an average age of the last child of 2.31 years affects the low symptoms of stress experienced. Evanoff et al. (2020) found the same results, during the Covid-19 pandemic, health workers who had children had low levels of stress symptoms. Families who have small children provide a fun effect and as a source of releasing fatigue due to work pressure. Babore et al. (2020) stated that children can represent the rest time for parents who are tired and have a lot of pressure due to work demands as health workers. The results of this study found that the length of working hours is a factor that affects the source of stress. The average working hours of health workers in this study of 8.27 hours can reduce the source of stress experienced by health workers. This means that the intensity of working hours is sufficient to reduce the source of stress experienced. Health workers who work at the forefront of Covid-19, especially medical staff, believe that the intensity of working hours is part of a social and professional obligation always to work (Cai et al., 2020) so that it does not become a source of stress. Medical doctors feel that the task of handling pandemic cases is a demanding job that must be carried out, so they feel familiar with the task Barello, Palamenghi, and Graffigna (2020) when compared to non-medical staff.

Families of health workers who handle Covid-19 have the opportunity to achieve a prosperous family. This requires a special strategy to overcome the sources of pressure faced and realize these achievements. However, the results show that there is no direct or indirect effect on the subjective well-being of the family. This is because the Covid-19 pandemic conditions provide free time for families, so the strategy used is in the form of diverting sources of pressure to other activities. During the Covid-19 pandemic, some parents tend to shift feelings of boredom and other stresses to physical activities such as playing with children (Carroll et al., 2020). Therefore, families feel enough with playing activities with their children. Coping strategies, stress symptoms, and subjective family well-being showed no significant difference between health professionals and health support personnel. Schmidtke, Geene, Holling, and Lampert (2021) stated that during the transitional conditions of the Covid-19 pandemic wave, welfare showed a return to normal due to being able to adapt to the Covid-19 pandemic situation. This shows that families can prevent stress through adaptation and form good strategies. The results showed that the strategy that was often used was by being obedient to worship and praying to God. Efforts that can be made to prevent the negative effects of sources of stress experienced are approaches through religion (Lian & Tam, 2014).

Thus, the increasing number of work responsibilities and energy expenditure in carrying out daily activities classified as low for health workers has the opportunity to increase the subjective welfare of the family. The novelty of this research is looking at the influence of sources of stress, coping strategies, and symptoms of stress on the subjective well-being of families of health workers dealing with Covid-19. On the other hand, this study has limitations, namely the use of retrospective methods through online questionnaires. It is prone to answer bias due to the limitations of respondents in remembering events that have occurred. Respondents are Covid-19 handling staff who get many assignments, so they have limited time to fill out online questionnaires. The range of types of health workers is quite diverse, so the study results cannot be concluded specifically for each type of health worker.

6. Conclusions
This study shows that the lower sources of stress and symptoms of stress will affect and improve the subjective well-being of the family. The variable sources of stress and symptoms of stress are mediation variables for the subjective well-being of the family. The intensity of long working hours is sufficient to lower the source of stress, which can improve the subjective well-being of the family in the next stage. As high as the low age of
respondents, spouses, and children, as well as the fewer number of family members, decreases the symptoms of stress experienced and improve the subjective well-being of the family in the next stage. Coping strategies do not show a direct or indirect influence on the subjective well-being of the family. Tenaga health support with a total of 40 people showed change problems and work problems as the source of more stress than health professionals who numbered 60 people.

Based on research findings, health workers are expected to continue to seek support in the form of advice or information from the nearest environment as a strategy to overcome the pressure faced. The research results show that the achievement of family well-being of health workers through good stress management could be used as an intervention consideration for hospitals or relevant governments in case of a new pandemic. Based on the study’s limitations, it is expected that the next researcher will use data retrieval methods combined with interview methods to reduce the possibility of biases or errors in understanding the questionnaire. In addition, it is expected to cooperate with the hospital, to facilitate the process of data collection with health worker respondents.

References


