

Effect of Working Conditions on Mental Health Health Personnel in the Covid-19 Pandemic

Stefani Stascia¹, Rudy Pramono²

^{1,2}Universitas Pelita Harapan, Indonesia.

stefanistascia@gmail.com

Abstract

Healthcare workers face Covid-19 patients and are at risk of being exposed to the virus, they also work long shifts, with high workloads, and face logistical constraints. This study was conducted to determine the effect of working conditions on the mental health of healthcare workers during the Covid-19 pandemic. The purpose of this study is to determine the effect of the independent variables, which are working hours, workload, support from peers, support from supervisors, logistical support and occupational competence on the mediating variable which is working conditions, and to determine the effect of working conditions on the dependent variable of mental health. This research was conducted in Depok City, involving 162 health workers at SMC Hospital. Questionnaires were distributed using the google form application to collect data based on quota sampling, the questionnaire contained 58 questions using a Likert scale value 1 – 5. All data analysis used the PLS-SEM method with the results of the study stating that there was a positive impact between all independent variables on working conditions and there is a positive impact between the working conditions variable and mental health. It was also found that there is low predictive accuracy with low predictive relevance on the dependent variable of mental health, while the mediating variable working conditions has moderate predictive accuracy with high predictive relevance, so this research can be developed further to obtain an appropriate model. This research also has managerial implications as well as recommendations for further research.

Keywords

working conditions; mental health; healthcare professional; working hours; workload, support from peers; support from supervisors; logistic support; occupational competence; Covid-19; Coronavirus



I. Introduction

Covid-19 is a disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and is a highly contagious disease. This disease was first reported to World Health Organization in the city of Wuhan, China on December 31, 2019. Indonesia itself reported the first case on March 2, 2020 in the city of Depok, West Java. This pandemic has adversely affected the whole world in various sectors, especially in the health sector. Almost all hospitals in Indonesia had difficulty dealing with the large spike in Covid-19 patients, especially in early January 2021 it was reported that 80% of the Covid-19 referral hospitals in Jabodetabek were filled, and the ICU room was 100% occupied (CNBC, 2021).). Many health workers in Indonesia themselves have died due to exposure to Covid-19 and Indonesia is also reported to be the country in Asia with the highest number of health workers dying

from Covid-19, namely 647 medical personnel consisting of 289 doctors, 27 dentists, 221 nurses, 84 midwives, 11 pharmacists.

COVID-19 is a global health problem including Indonesia. This was initiated from the information of the World Health Organization (WHO) on 31 December 2019 there was a case of a cluster of pneumonia with a new etiology in Wuhan City, Hubei Province, China and later expanded beyond China. On 30 January 2020, COVID-19 was set to become the public health Emergency of International Concern (PHEIC). (Susilawati, et al. 2020)

Every day energy health dealing with patients and having the risk of being exposed to Covid-19, working with shift pandemic, high workload, and facing logistical limitations. These things can be a stressor for health workers, if these stressors cannot be overcome by mechanisms coping each individual, stressors can become so severe that it can interfere with their mental health and are at risk of developing allostatic overload (Zhang et al, 2020). Previous research on depression, anxiety and stress disorders and the factors that influence them in the Covid-19 pandemic era was conducted by Elbay et al in 2020 in Turkey. Elbay et al, conducted a study on 442 health workers using the

DASS-21 questionnaire (Depression Anxiety and Stress Scale) and asked several factors that might influence it, namely working hours per week, working hours patterns, total patients treated, support from colleagues, supervisor support, logistical support, and the level of competence assessed using a Likert scale. Of all participants, 286 people (64.7%) had symptoms of depression, 224 people (51.6%) had anxiety symptoms and 182 people (41.2%) had stress symptoms. Factors found to be associated with a higher total DASS-21 score in health workers were increased working hours per week, increased number of Covid-19 patients being treated, lower levels of support from colleagues and supervisors, lower logistical support and lower levels of competence (Elbay et al, 2020).

A short survey was conducted at the SMC Hospital (RS) in October 2020 regarding the psychology of health workers in the Covid-19 pandemic with the number of respondents being 134 nurses at the RSSMC, it was found that 82.1% of respondents felt anxious when providing services to patients during the pandemic and 80.4% feel their family is their source of motivation to stay healthy. RSSMC is a type B private hospital in Depok, West Java. RSSMC has started handling Covid-19 cases since March 2020 when the pandemic began and so far it has 42 special beds for

Covid-19 isolation and 12 ICU beds (Intensive Care Unit) with special ventilator facilities for Covid-19 patients.

Research on working conditions and their impact on mental health in Indonesia has not been carried out, so research on this is needed to find out the psychological challenges faced by health workers in Indonesia to fight the Covid-19 pandemic. By conducting this research, it is hoped that we can find out the psychological needs of health workers in Indonesia and strengthen their mental well-being.

The welfare of health workers in Indonesia is very important considering that they are at the forefront of Indonesian health. Thus, it is necessary to know the effect of working conditions on the mental health of health workers.

II. Review of Literature

2.1 Working Hours

Working hours as time spent at work doing productive activities or other activities that are part of the duties and obligations of the job. According to the ministry of manpower, working hours in accordance with Permenkes number 52 of 2018 are 40 hours a week with a daily working time of seven to eight hours and not exceeding twelve hours (Kemenkes, 2018). Irregular working hours are not like working hours in general, namely eight in the morning to four in the afternoon on weekdays Monday to Friday, but they can work at night, on weekends or on national holidays. This is one aspect that causes disruption of rest time or other leisure activities. Short working hours are recommended for medical personnel who must use personal protective equipment (PPE) continuously throughout the shift (IDI, 2020).

Irregular working hours have a negative impact on the physical and mental health and well-being of workers. This happens because it can interfere with the quality and quantity of sleep, can cause fatigue, anxiety, depression and physical diseases such as cardiovascular, gastrointestinal disorders, increase the risk of abortion, obesity and diabetes (EuroFound and ILO, 2019).

Total hours worked per week is the total number of hours worked per week (Flanagan, 2006). The Indonesian Doctors Association issued guidelines to regulate the working hours of health workers in this Covid-19 pandemic era, IDI urges that the number of working hours is no more than 10 hours in one shift, it is recommended that in one week five 8- hour shifts or four 10-hour shifts, and scheduling at least 11 hours of rest between shifts, and providing one to two days off after five 8-hour shifts or four 10-hour shifts (IDI, 2020).

2.2. Workload

Excessive workload is one source that has the potential to cause work- related stress (Wilkinson, 2001). Research by Margolis et al in 1974 indicates that the workload is excessive significantly related to symptoms or indicators of stress, such as drinking alcohol, absenteeism, low motivation at work, and low self-confidence (Margolis et. al, 1974). The mismatch between the workload and the tasks that should be done can cause fatigue, for example, excessive work demands can cause anxiety. On the other hand, an appropriate workload can maintain the conditions and motivation of workers. Mismatch in workload explained that workers feel they are overworked and/or do not have enough time to do their jobs (Portoghese et.al, 2014). Support from Peers.

The social environment is one of the most important things for workers. If someone asks about how the person's work is, one of the factors that the worker will describe is the social environment in which he works. The social environment in the workplace must have a good working atmosphere, and have supportive colleagues. Having a feeling of acceptance in the work community is one of the important factors in building mental health in the workplace (EuroFound and ILO, 2019). Social relations between workers can form an integrated feeling from workers so that a positive culture can be created in the organization and can improve company performance. A workplace that supports its employees and helps them unleash their skills and talents can make them more motivated,

2.3. Support from Supervisors

A high level of trust between superiors and subordinates, as well as a positive organizational culture can form good employee commitment, thereby ensuring employee retention and reducing the occurrence of high workforce turnover (EuroFound and ILO, 2019). Effective managers ensure the overall performance of their members, foster a synergistic working atmosphere and provide guidance and leadership. Managers have an

active role in shaping the work atmosphere, and developing a positive work culture that can help improve the welfare and performance of workers. Supportive manager behaviors include emotional support, instrumental, exemplary behavior and life-management work which creative (Pandey and Chairungruang, 2020). Logistics Support Monitoring of physical conditions at work is one of the conditions that the ILO has always monitored. Avoiding or reducing physical risk is the key to occupational health and worker safety (Eurofound and ILO, 2019). Physical risks also depend on the place where the work is carried out, for example in cases of high work demands, workers may forget to use the personal protective equipment readily available to them, or they may not get the appropriate personal protective equipment. Hospitals must maximize safety and provide logical support to ensure the prevention of virus exposure at work (Changhui et.al 2020) Occupational Competence Skills of health workers are one of the factors that influence these workers to be able to develop and grow, the influencing factors are skills in work (competence), decision making, worker involvement in organizations and training (EuroFound and ILO, 2019). Workplace learning and task variety are the main drivers of work motivation and they contribute to self-development in the workplace. Workers who are unable to use their skills in the workplace or workers who are unable to acquire new skills in the workplace can lead to both cognitive and skill decline and loss of self- confidence. Workers can work better if they feel confident in their skills at work.

2.4. Working Conditions

Working conditions have been defined in various employment and psychological journals. One of the models that explaining the working conditions is the job demand-control (JD-C) model that has been mentioned above. This model explains the imbalance between the pressure felt by workers (demand) and the level of decisions they have (level of control), which refers to the concepts of freedom of decision making, workload and work pressure.

This model says that the main sources of stress due to work arise from a high workload (excess work time, high work speed, physically and mentally heavy workload) and freedom of decision making (the ability of workers to manage their activities and skills) or control. in work (Barnay, 2016). Working conditions must be shaped in such a way for health workers so that they can carry out their obligations by fully maximizing their potential and skills to provide quality services to patients (Bashir et.al, 2019). The creation of good working conditions will motivate workers to work better.

2.5. Mental Health

Mental health is a state of well-being in which individuals realize their own abilities, can cope with the normal stresses of life, can work productively and are able to make a contribution to their community (WHO, 2018). Mental health is an important and essential component of health. As mentioned above, health according to WHO is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 1948). It is stated that physical, mental and social well-being, so that health is not only physically prosperous, but there are other factors, namely mental and social which must also be fulfilled. Mental health is also important for all individuals to be able to think, communicate with others, earn income and most importantly enjoy life. Poor mental health is related to various things/stressors, such as rapid changes in the social environment, stressful working conditions, gender discrimination, social exclusion, unhealthy lifestyles, poor physical health, human rights violations and others (WHO 2018). Mental health conditions can have a profound impact on all areas of life, such as job performance, relationships with family and friends, and ability to participate in society.

III. Research Methods

Based on the research objectives using this quantitative approach by using the type of cross-sectional research, and non-experimental research. The population in this sample is all health workers who work in the Covid-19 isolation room at the SMC hospital. This study uses quota sampling, namely selecting samples from all people with visible relevant characteristics, this process continues until the researcher reaches the required number of respondents (quota) which is a minimum of 160 respondents. This study uses primary data as a method of collecting data using a questionnaire. In this study, the questionnaire contains questions from each variable which is equipped with answers in the form of a Likert scale with five points from disagree to strongly agree. In addition, the variable questions also used the DASS-21 questionnaire, and questions about the demographic profile of the respondents. Data collection is carried out by online using the app google forms. This research uses multivariate data analysis method because the research model is quite complex and has several variables. In this study, there are eight variables and seven paths, so an analytical method is needed that can test the influence between variables to get to the dependent variable. From various analytical methods multivariate existing data, this study uses the analytical method partial least square – structural equation modeling (PLS-SEM) with the SmartPLS app. Statistical analysis begins by looking at outer model to test the reliability and validity of indicators in a model, then see inner model. This study is to test the predictive ability of the model and the significance of the influence between the construct variables in this study.

IV. Result and Discussion

Respondents who obtained on this study was 164 respondents with 2 respondents who did not agree to participate in this study. Respondent profiles obtained from the SMC Hospital were health workers who participated in this study 82% were nurses. Because we know that nurses who work in one shift keep more than one different from doctors and other health workers. It was also found that the majority of respondents in this study were aged 21-30 years, this was 48%. This is in line with the length of service of the respondents where the largest number of respondents has worked for 1 - 5 years.

Respondents who obtained on this study were 164 respondents with 2 respondents who did not agree to participate in this study. Respondent profile of the respondents did not smoke, did not consume alcohol and had no previous history of mental disorders, 93%, 99% and 99% respectively.

Table 1. Respondent Profile

Demographics	Information	Total Respondent	Percentage
Work	Doctor	12	7%
	Nurse	132	81%
	Power Health other	18	11%
Total		162	100%
Age	21-30 years old	78	48%
	31-40 years old	56	35%
	40-50 years	28	17%
Total		162	100%

Gender	Woman	139	86%
	Man	23	14%
Total		162	100%
Marital status	Married	110	68%
	Not married yet	52	32%
Total		162	100%
Having Children	Yes	94	58%
	No	68	42%
Total		162	100%
Living together	Etc	8	5%
	Parent	56	35%
	Spouse and children	87	54%
	Own	11	7%
Total		162	100%
Smoke	No	150	93%
	Yes	12	7%
Total		162	100%
Consuming Alcohol	No	160	99%
	Yes	2	1%
Total		162	100%
Length of work	< 1 year	23	14%
	15 years	56	35%
	5 – 10 years	38	23%
	> 10 years	45	28%
Total		162	100%
Ever Diagnosed Covid-19	No	96	59%
	Yes	66	41%
Total		162	100%
Ever experienced Mental disorders Previously	No	161	99%
	Yes	1	1%
Total		162	100%

The first step in the reflective measurement model is to assess the outer loadings, then carry out an internal consistent reliability assessment using Cronbach's alpha, then assess the validity of the convergence using average variance extracted (AVE), finally by assessing the discriminant validity using the heterotrait-monotrait ratio (HTMT). .

On outer model obtained a total of 36 indicators of the 58 reflective indicators used in the research survey. It was found that 36 indicators were reliable to assess the relationship between the indicators and their constructs in accordance with the required outer loading value, namely > 0.7 . Cronbach's alpha value of all variables is more than 0.6 and the value of

composite reliability on all variables have values between 0.7 to 0.95. From result it can be concluded that all indicators have been declared reliable to be able to measure the construct. The AVE value of all variables is more than 0.5 as required, so it can be concluded that the indicators in this research model have been considered valid to measure their respective constructs.

Test result valuediscriminant validity by using the HTMT value of each variable is below 0.9, so it can be concluded that all indicators in this study have been well discriminated against so as to measure the construct and show that the structural model with the construct is conceptually similar.

Analysis inner model carried out using the method bootstrapping from software SmartPLS. Measurement model formative evaluated based on convergent validity, indicator collinearity, statistical significance, and relevance of existing indicators. In addition, the R-value was also assessed. squares, f-squares, Q- square, Q-square predict. The final step is to assess the statistical significance and relevance of the path coefficients, based on IPMA data. IPMA compares the total effect of the structural model on a particular target construct with the mean latent variable scores of the predecessors of this construct. All paths in this research model have a T-value. statistics above T- value so it can be concluded that there are 5 paths in this research model are significant.

Test results variance inflation factor (VIF) in this study it was found that almost all VIF values in all variables were less than 3 and it can be concluded that the variable in this study was ideal, only 1 variable, namely occupational competence whose VIF value is more than 3, namely 3,845 but it can be concluded that this value can still enter the ideal limit. Based on this, it can be interpreted that between the variables in this research model there is no multicollinearity problem and indicates that this research model is accepted in the multicollinearity problem. R value² for variable mental health is 0.084 thus the variable is included in the weak category. Thus the variable mental health as the dependent variable of this research model can be explained by 10% by the independent variable, while the remaining 90% can be explained by variables other than this research model. For the ability of the power of accuracy of this research model to fall into the category low predictive accuracy. While the value of R² mediating variable working conditions is 0.654 which can be concluded that the mediation variable model can be explained by 70% by the independent variable, so go inside moderate predictive accuracy. Thus this research model needs to be developed for further research. In the calculation of Q² obtained the variable mental health have value low predictive relevance with a value of 0.035. While the variable working conditions have value high predictive relevance with a value of 0.505.

Table 2. Research Results Path Coefficient

<i>Path</i>	<i>Path Coefficient</i>	<i>Information</i>
<i>Working Hours -> Working Conditions</i>	0.117	Positive
<i>Workload - > Working Conditions</i>	0.281	Positive
<i>Support from Peers -> Working Conditions</i>	0.065	Positive

<i>Support from Supervisors - > Working Conditions</i>	0.058	Positive
<i>Logistics Support -> Working Conditions</i>	0.233	Positive
<i>Occupational Competence - > Working Conditions</i>	0.279	Positive
<i>Working Conditions - > Mental Health</i>	0.29	Positive

From the table of hypothesis test results above, it can be concluded that all hypotheses have positive coefficients.

Then do the testfit model or goodness of fit to assess how well the model under study with a value of 62.9% which means that this study has a significant relationship fit.

Table 3. Results of T-AnalysisStatistics

<i>Path</i>	<i>Path Coefficient</i>	<i>T-Statistics</i>	Significance	Results
<i>Working Hours -> Working Conditions</i>	0.117	1,967	Significant	Hypothesis supported
<i>Workload - > Working Conditions</i>	0.281	2,996	Significant	Hypothesis supported
<i>Support from Peers - > Working Conditions</i>	0.065	0.688	No significant	Hypothesis supported
<i>Support from Supervisors - > Working Conditions</i>	0.058	0.708	No significant	Hypothesis supported
<i>Logistics Support -> Working Conditions</i>	0.233	2.847	Significant	Hypothesis supported
<i>Occupational Competence - > Working Conditions</i>	0.279	2,797	Significant	Hypothesis supported
<i>Working Conditions - > Mental Health</i>	0.29	2,516	Significant	Hypothesis supported

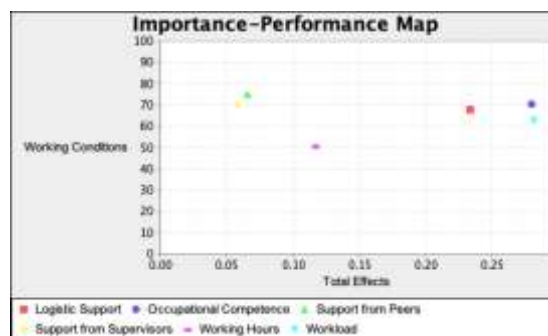
From the table above, the results show that the value of T-Statistics variable working hours, workload, logistics supportand occupational competence to working conditions more than 1.65 so it can be concluded that the hypothesis is significant, as well as the hypothesis working conditions to mental health.

While the hypothesis support from peers andsupport from supervisors to working conditions have a T-Statistics below 1.65 so it is not significant.

Table 4. Results Indirect Effect

<i>Path</i>	<i>T-Statistics</i>
<i>Working Hours -> Working Conditions -> Mental Health</i>	1.324
<i>Support from Supervisors -> Working Conditions -> Mental Health</i>	0.619
<i>Logistics Support -> Working Conditions -> Mental Health</i>	1,519
<i>Occupational Competence -> Working Conditions -> Mental Health</i>	1,526
<i>Workload -> Working Conditions -> Mental Health</i>	1,587
<i>Support from Peers -> Working Conditions -> Mental Health</i>	0.594

From the table above, it can be concluded that the path that has the strongest influence is the path workload lead to mental health through working conditions with a coefficient of 1587. This is in accordance with the results of research by Elbay et al in 2020 which stated that workload has a positive influence on mental health (Elbay et al, 2020).

**Figure 1.** IPMA results (*Importance- Performance Map*)

It can be seen in the picture above that in the upper right quadrant there are variables occupational competence, workload and working hours. It can be concluded that these variables indicate that the three variables have good results and are important variables on the working conditions of health workers. The results of this study are working hours, workload, logistic support, occupational competence have positive and significant results on working conditions. Working conditions also has a positive and significant result on mental health. Where as support from peer's and support from supervisors has a positive but not significant result on working conditions.

V. Conclusion

1. Working hours proven significantly has a positive effect on the variable working conditions
2. Workload proven to have a significant positive effect on the variable working conditions
3. Logistics support proven to have a significant positive effect on the variable working conditions
4. Occupational competence proven to have a significant positive effect on the variable working conditions
5. Working conditions proven to have a significant positive effect on the variable mental health

This research model is in accordance with the structural model analysis having low predictive accuracy with low predictive relevance on the dependent variable mental health. While the mediating variable working conditions have moderate predictive accuracy with high predictive relevance. Thus, this research model can be further developed to obtain a more suitable model.

Limitations and Suggestions

There are several limitations in this study, namely the research model that has not been maximized to examine mental health with the predictive ability of research models that fall into the low category, there are various other factors that can be studied to determine other factors that can affect mental health such as individual factors themselves, family, social, environmental and economic. This can be further developed for further research. And according to the survey that was made previously from the SMC hospital, it was stated that 80% of the respondents received support from their families as their main source of motivation so that this can be developed into one of the variables that can help this research model. The next limitation is that the sampling of respondents is done online so that they are less able to conduct in-depth interviews on the mental health conditions of the respondents. Then the number of respondents who filled out the questionnaire also could not be maximized because of the busyness of the respondents at work.

References

- Barnay, T. (2016). Health, work and working conditions: a review of the European economic literature. *The European Journal of Health Economics*, 17(6), 693-709.
- Bashir, A., Amir, A., Jawaad, M., & Hasan, T. (2020). Work conditions and job performance: An indirect conditional motivation. *Cogent effect of Business & Luxembourg and International Labor Organization, Geneva. Management*, 7(1), 1801961.
- California Nurse-to-Patient Ratios - UNAC/UHCP. (2008). Retrieved 12 July 2021, from <https://unacuhcp.org/californianurse-to-patient-ratios/>
- Changgui, CHEN, Junfang, XUA N., HUANG, X., Hongyan, SHO Flanagan, RJ (2006). Globalization and labor conditions: working conditions and worker rights in a global economy. Oxford University Press.
- González-Rivera, JA, Pagan-Torres, O. M., & Pérez-Torres, EM (2020). Depression, Anxiety and Stress U., Jinhong, FU, Gongyi, WA NG, & Zhaobin, CAI (2020). Scales (DASS-21): validity problem construct in Strategy of hospital logistics support to the battle against novel coronavirus pneumonia. *Chinese Journal of Hospital Administration*, E002-E002.

- Chin, WW (1998), "The partial least squares approach to structural equation modeling", in Marcoulides, GA (Ed.), *Modern Methods for Business Research*, Mahwah, Erlbaum, pp. 295-358.
- Coronavirus disease (COVID-19): How is it transmitted? European journal of investigation in health, psychology and education, 10(1), 375-389.
- Hair Jr, JF, Hult, GTM, Ringle, CM, & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.
- Hair Jr, JF, Matthews, LM, Matthews, RL, & Sarstedt, M. (2017). *PLS- SEM or CB-SEM: updated guidelines on which method to use*. (2021). Retrieved 23 May 2021, from <https://www.who.int/news-room/qa-detail/coronavirus-disease-covid-19-how-is-it-transmitted>
- International Multivariate Data Analysis, 1(2), 107-123.
- Creswell, JW, & Creswell, JD (2018). *Research design: Qualitative, quantitative, and mixed methods approaches Fifth Edition*. Sage publications.
- Demerouti, E., Bakker, AB, Nachreiner, F., & Schaufeli, WB (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, 86(3), 499.
- F., Xue, Q., Peng, M., ... & Wang, HX (2020). Mental health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. *Journal of Medical Reviews*, 2(2), 230-241.
- Hastuti, R. (2021). Full Hospital, Covid-19 Patients Difficult to Get Treatment. Retrieved 23 May 2021, from <https://www.cnbcindonesia.com/news/20210108121412-4214463/hospitals-full-of-covid-19-difficult-to-treat>
- IDI, P. (2020). *Standard Guidelines Doctor's Protection in the Covid-19 Era*. Indonesian Doctors Association, September, 40.
- IDI, P. (2020). *Standard Guidelines Doctor's Protection in the Covid-19 Era*. Jakarta: PB Indonesian Doctors Association (PB IDI).
- Indonesia, C. (2021). Important phenomenon One Year of the Covid-19 Pandemic. Retrieved 23 May 2021, from <https://www.cnnindonesia.com/nasional/d/2021/01/28/141625123/most-in-asia-647-nakes-indonesiameninggal-due-covid-19>
- Kaplan, HI, & Sadock, BJ (2020). *Synopsis of Behavioral sciences psychiatry: clinical Number 52 of 2018 concerning*
- Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS- SEM: The inverse square root and gamma-exponential
- Kumar, R. (2018). *Research methodology: A step-by-step guide for beginners*. Sage.
- EMPLOYEE SATISFACTION: STUDY IN JOA CASE BANGKOK.
- Liu, Z., Wang, R., ... & Zhang, X. (2020). The prevalence and risk factors of psychological disturbances of frontline medical staff in China under the COVID-19 epidemic: Workload should be concerned. *Journal of affective disorders*, 277, 510-514.
- MHA. (2021). The Mental Health of Healthcare Workers in COVID-19. (2021). Retrieved 14 July 2021, strain: Implications for redesign. *Administrative quarterly*, 285-308.
- Job science from <https://mhanational.org/mentalhealth-healthcare-workers-covid-19>
- Murray.
- M., Davies, M., & Boushon, B. (2021). Panel Size: How Many Patients Can One Doctor Manage?. Retrieved 12 July 2021, from <https://www.aafp.org/fpm/2007/04> Journal, 28(1), 227-261.
- Kristensen, TS, Borritz, M., Villadsen, E.,/p44.html
- Margolis, BL, Kroes, WH, & Quinn, R.P. (1974). Job stress: An unlisted occupational hazards. *Journal of Occupational and Environmental Medicine*, 16(10), 659-661.
- GuineaPig, MG, Stansfeld, S., Patel, C.,

- Minister of Health of the Republic of Indonesia. 20210302135537-20- 612692/important-event-one- (2018). Health Regulation Republic Minister Indonesia year-pandemic-covid-19
- Media, K. (2021). Most in Asia, 647 Indonesian health worker dies due to Covid-19. Retrieved 23 May 2021, from <https://www.kompas.com/sains/rea>
- North, F., Head, J., White, I., ... & Smith, GD (1991). Health inequalities among British civil servants: the Whitehall II study. *The Lancet*, 337(8754), 1387-1393
- Maslow, AH (1943). A theory of human motivation. *Psychological review*, 50(4), 370.
- Organization (2019). Working conditions in a global perspective. Office of the European Union, Occupational Safety and Health in Health Service Facilities. Ministry of Health psychiatry. Williams & Wilkins Co. Karasek Jr., RA (1979). Job demands, job decision latitude, and mental
- Patel, M., & Patel, N. (2019). Exploring Research Methodology: Review Article. *International Journal of Research and Review*, 6(3), 48-55.
- Pandey, A., & Chairungruang, S. (2020). & Christensen, KB (2005). The Copenhagen Burnout Inventory: EFFECTS OF ORGANIZATIONAL SUPPORT, A new tool for the assessment of burnout. *Work & Stress*, 19(3), 192-207.
- Pejtersen, JH, Kristensen, TS, Borg, V., & Bjorner, JB (2010). The second version of the Copenhagen Psychosocial Questionnaire. *Scandinavian journal of public health*, 38(3_suppl), 8-24.
- Portoghese, I., Galletta, M., Coppola, R.C., Finco, G., & Campagna, M. (2014). Burnout and workload among health care workers: the moderating role of job control. *Safety and World Health Organization. health at work*, 5(3), 152-157.
- Ray, L., Gorman, P., Schuldheis, S., . . . & Helfand, M. (2003). The effect of health care working conditions on patient safety. *Evidence report/technology assessment* (Summary), (74), 1-3.
- S., & Karadere, E. (2020). Depression, anxiety, stress levels of physicians and associated factors in Covid-19 pandemics. *Psychiatry research*, 290, 113130.
- Eurofound and International Labor
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Shahsavarani, AM, Azad Marz Abadi, E., & Hakimi Kalkhoran, M. (2015). Stress: Facts and theories through literature review. *International* (nd). Frequently asked questions. Retrieved from <http://www.who.int/suggestions/faq/en/>
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of occupational health psychology*, 1(1), 27.
- Timeline: WHO's COVID-19 response.
- Susilawati, et al. (2020). Impact of COVID-19's Pandemic on the Economy of Indonesia. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. (2021). Retrieved 23 May 2021, from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactivetimeline?gclid=CjwKCAjw3pWDBhB3EiwAV1c5rDpJJEDsDCwXYG8L-wawUw4gg-FUB-Eswd_QAAi8nw6cdjBUNHpTaxoCqwYQAvD_BwE#
- THAILAND. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 4(02).
- WHO. (2018). Mental health: strengthening our response. (2021). Retrieved 14 July 2021, from <https://www.who.int/newsroom/factsheets/detail/mentalhealth-psychosomatics>, 89(4), 242-250.