

The moderating effect of perceived organizational support toward burnout on work engagement in nurses

Kezia Riventa Talumepa, Hana Panggabean

*Faculty of Psychology, Atma Jaya Catholic University of Indonesia
Jl. Jend. Sudirman No.51, Kota Jakarta Selatan 12930, Indonesia*

*Corresponding Author: E-mail: hana.panggabean@atmajaya.ac.id

Abstract

Nurses work at the frontline with high intensity in patient care, especially handling the COVID-19. Work pressure and stress faced by nurses can increase burnout (BO) as a syndrome of emotional exhaustion that occurs over a long period of time. One of the negative impact of burnout is the decrease in work engagement (WE). The presence of perceived organizational support (POS) has been shown to be correlated with low BO, and in turn, is correlated with high level of WE. This study aims to examine the contribution of BO to WE moderated by POS for nurses at the Hospital Prof R.D. Kandou in North Sulawesi as a referral COVID-19 hospital. This study involved 111 nurses from isolation room and emergency room using the convenience sampling technique. Data analysis was conducted using the moderation analysis with the help of JASP software. From the result, indicate that BO significantly affect WE which give a 26.9% contribution. POS adds contribution when together with BO its affects WE by 27.8%, to 54.7%. The results of the study show that POS significantly moderates the effect of BO on WE.

Keywords: Burnout; COVID-19; Nurses; Perceived organizational support; Work engagement

©2022 Jurnal Penelitian

*This is an open access article distributed under the CC BY-SA 4.0 license
(<https://creativecommons.org/licenses/by-sa/4.0/>)*

Article Info:

Received: 2022-09-22

Revised: 2022-10-23

Accepted: 2022-11-27

Published: 2022-12-31

How to cite:

Talumepa, K. R., & Panggabean, H. (2022). The moderating effect of perceived organizational support toward burnout on work engagement in nurses. *Jurnal Penelitian*, 19(2), 96-105. <https://10.26905/jp.v19i2.9454>

1. Introduction

Nurses are health workers who are directly involved and play a crucial role in controlling the spread of COVID-19. They are required to handle situations that they have never learned, practiced, or experienced before, in conditions that threaten their own safety. Until April 2022, as many as 2,087 health workers had died from Covid-19.

As part of the health workforce, nurses have a high intensity of direct contact with patients. Even though they have a high risk of being exposed to COVID-19, they must carry out their duties by ensuring that patients receive adequate care, regularly monitor the patient's condition and must accompany



E-ISSN: 2809-7688

P-ISSN: 1410-7295

doctors in treating COVID-19 patients. For this reason, they have the possibility of experiencing higher psychological pressure amid the COVID-19 pandemic.

During the pandemic, various studies were conducted to discuss the psychological effects of the COVID-19 pandemic on health workers, including nurses. These studies have found that they experience anxiety, are prone to stress, tendencies to agonist behavior, fear of death, and even depression during the COVID-19 pandemic (Havaei et al., 2021; Said & El-Shafei, 2020; Shahzad et al., 2020). Prolonged work pressure and stress cause burnout (BO), which is a syndrome of emotional exhaustion and cynicism that often occurs towards individuals through psychological experiences involving feelings, attitudes, motives, and expectations; and individual negative experiences, regarding problems, distress, discomfort, dysfunction, and/or negative consequences (Maslach & Leiter, 2017). BO syndrome does not occur instantly, but is a long-term effect of chronic stress that individuals face.

Research conducted by Said & El-Shafei (2020) on nurses in Egypt found nurses who were on the front lines during COVID-19 had high levels of stress and BO and moderate levels of depression. Nishimura et al. (2020) found that health workers in Japan who were placed in intensive care units had a higher risk of having BO than those who were placed in public services during Covid-19. Murat et al (2021) also found that nurses had a high BO rate in the midst of COVID-19, especially those who had been detected with COVID-19 and did not want to work voluntarily. Based on this explanation, the critical condition of the COVID-19 pandemic increased the BO of nurses.

One of the effects of BO is decreasing individual attachment or involvement with their work (Smith et al., 2021). In line with various studies which found that amid the COVID-19 pandemic, the rate of nurses leaving their jobs increased (Falatah, 2021; Nashwan et al, 2021). The conditions experienced and felt by these nurses can be explained by the concept of work engagement (WE). Engagement is a positive, satisfying, and work-related state of mind consisting of vigor, dedication, and absorption (Schaufeli & Bakker, 2004).

Research conducted on nurses after the initial crisis of COVID-19 found that health workers who had high BO levels had low WE rates (Meyenaar et al, 2021). Marti et al, (2019) also found that nurses who have low and very low levels of dedication have a high risk of experiencing emotional exhaustion which is a BO syndrome. For this reason, there are strong indications that BO can affect nurses' WE in the midst of the COVID-19 pandemic.

On the other hand, the WE level is influenced by job resources in the form of workplace support from superiors, peer support, feedback, work control, and organizational rewards (Schaufeli & Bakker, 2004). This form of support from the workplace is known as the concept of Perceived Organizational Support (POS), which describes the general employee beliefs about how much the organization values their contributions and cares about their well-being and that organizational support is given sincerely without strings attached (Eisenberger & Stinghamber, 2011). Xu et al. (2021) found that POS had a positive impact on nurses' WE during the COVID-19 period. The form of POS can be in the form of support from the work environment or superiors. Rismawan & Wijono (2021) also found that POS has a positive relationship with nurses' WE. It can be concluded that POS has a correlation with the level of WE in those working in the humanitarian services sector.

In addition to its influence on WE, POS also has a correlation with BO. Research by Alcover et al (2018) found that there is a positive relationship between POS and job satisfaction. In another study conducted by Anomneze et al. (2016), also found that POS significantly predicts emotional exhaustion. Thus, POS is a factor that also has a relationship with BO both independently and when combined with other variables.

Besides being directly related to BO and influencing WE, POS has also been shown to be able to mediate BO effects. The study of [Kim et al. \(2022\)](#) on nurses on duty in the midst of COVID-19 showing that this variable mediates relationship between emotional labor and BO. This means that when nurses perceive that there is organizational support when facing a high and emotional workload, the BO they experience can be eased up.

Based on the findings of the studies described earlier, it is known that BO and POS are related to WE. However, there has been no research on the effect of these three variables on nurses during a pandemic together. This study aims to analyze whether burnout significantly affects work engagement by moderating perceived organizational support for nurses. With this in consideration, researchers can then help to understand the psychological conditions experienced by nurses now and help organizations determine steps that can be taken to intervene in this matter. This research was conducted at Prof. Dr. R.D. Kandou Hospital in Manado which is a COVID-19 referral hospital that treats many COVID-19 patients.

Based on the researchers' observations and initial exploration of two nurses, it is clear that the workload during the pandemic creates psychological and emotional stress. Symptoms that appear include feeling emotionally tired, fear and worry about contracting and transmitting it to family at home, as well as anxiety with changing conditions, accompanied by physical fatigue because they feel their energy is being drained. However, they chose to stay because of the professional responsibilities they took. Through this explanation, researchers consider it important to explore the interrelationships of the three variables in order to be able to explain the condition of nurses who handle COVID-19 patients directly at Prof. R.D. Kandou Manado.

2. Method, Data, and Analysis

The variables in this study are work engagement (WE) as the dependent variable, burnout (BO) as the independent variable and perceived organizational support (POS) as the moderator variable. Data collection was carried out by means of an online questionnaire using the Google Form from 7 March 2022 – 27 March 2022.

The population is all nurses at Prof. Dr. R.D. Kandou Hospital in Manado. In this study, sampling was carried out using nonprobability sampling. Researchers select samples based on availability and represent several characteristics in the study ([Creswell, 2012](#)). The characteristics of the participants are nurses who treat COVID-19 patients, namely nurses in the Covid-19 isolation room and emergency room.

Participants were taken using convenience sampling technique. In this technique, participants are selected because of their availability and willingness to be researched ([Creswell, 2012](#)). The number of sample participants in this study was taken based on the concept of taking participants for regression research by [Green \(1991\)](#). The researcher uses the formula $N(\text{subject}) \geq 104 + m$ (predictor), so that the minimum number of participants that must be present is 106 participants. In this study, there were 111 nurses as participants.

This type of research is a non-experimental quantitative. Research design is applied research, which aims to provide solutions to certain practical problems in the real world ([Babbie, 2011](#)). Researchers used the Utrecht Work Engagement Scale (UWES-9) to measure the level of work engagement developed by Schaufeli and Bakker, which has been adapted by [Kristiana et al. \(2018\)](#). This measuring instrument consists of 9 items with a Cronbach alpha reliability value of $\alpha = 0.85$. Furthermore, burnout levels were measured by the Burnout Inventory-Human Service Survey (MBI-HSS) developed by Maslach &

Jackson (1981). The MBI-HSS used is the one already in Indonesian by Mizmir (2011). This measuring instrument consists of 22 items with a correlation coefficient > 0.30 and Cronbach alpha reliability $\alpha = 0.746 - 0.821$. Then, to measure the moderator variable of perceived organizational support, researchers used the Survey of Perceived Organizational Support (SPOS) developed by Eisenberger et al. (1986). This measuring instrument was adapted into Indonesian by Aikacchatra et al. (2019). This measuring instrument totals 26 items with a validity value of 0.342 - 0.926.

The data analysis used was descriptive test, classic assumption test and hypothesis test. The test uses the help of the Statistical Package for Social Science (SPSS) software version 21 and tests the hypothesis using moderation analysis using the help of Jeffrey's Amazing Statistics Program (JASP) software. The moderation analysis model used is as follows:

$$Y = \beta_0 + \beta X_1 + e$$

Which Y = work engagement; β_0 = burnout; βX_1 = interaction between burnout and perceived organizational support; e = error.

3. Results

The research data was obtained from 111 participants from Prof. R. D. Kandou Hospital in Manado who is in charge of the COVID-19 isolation unit and the emergency room. The participants' demographic is described in Table 1.

Table 1
 Research participants' demographic

Characteristic		Frequency (N)	Percentage (%)
Gender	Male	51	45.95
	Female	60	54.05
Age	25-36	71	63.96
	37-48	35	31.53
	49-59	5	4.50
Marriage status	Single	16	14.41
	Married	95	85.59
Have kid(s)	Yes	76	68.47
	No	35	31.53
Education level	Diploma (D3)	34	30.63
	Bachelor (S1)	70	63.06
	Postgraduate (S2)	7	6.31
Years of service	1-9 years	49	44.14
	10-19 years	38	34.23
	20-29 years	19	17.12
	30-39 years	5	4.50
Employment status	Permanent	49	44.14
	Contract	62	55.86
Level	Staff	94	84.68
	Management	17	15.32
Task unit	Covid-19 Isolation Room	59	53.15
	Emergency Room (ER)	52	46.85

Category scores for this study were then determined using the hypothetical norm method. Based on the hypothetical norm, the categories are divided into low ($M < X - SD$), medium ($M - SD < X < M + SD$), and high ($M + SD < X$). The following is an explanation of determining the categories per measuring instrument in this study (Table 2).

Table 2
Score interpretation categories

Variables	Hypothetical Mean	Hypothetical Standard Deviation	Category
Work Engagement	27	9	X > 37 (High) 19 < X < 36 (Moderate) X < 18 (Low)
Burnout	63	21	X > 85 (High) 43 < X < 84 (Moderate) X < 42 (Low)
Perceived Organizational Support	77	18.33	X > 96 (High) 60 < X < 95 (Moderate) X < 22 (Low)

The analysis continued with a descriptive test. Descriptive analysis found that most nurses' WE were in the low category (51.35%). Furthermore, BO was in the moderate (41.44%) and high (44.15%) category while the proportion is relatively balanced. Then POS was in the moderate (49.54%) and high (45.05%) category.

Table 3.
Score Category

Variables	Hypothetical Mean	Hypothetical Standard Deviation	Category	Frequency (N) (%)
Work engagement (WE)	27	9	High	11 (9.91)
			Moderate	43 (38.74)
			Low	57 (51.35)
Burnout (BO)	63	21	High	49 (44.15)
			Moderate	46 (41.44)
			Low	16 (14.41)
Perceived organizational support (POS)	77	18.33	High	50 (45.05)
			Moderate	55 (49.54)
			Low	6 (5.41)

Prior to testing the hypothesis, a classical assumption test was carried out through the normality test, multicollinearity test and heteroscedasticity test. The normality test was performed using the Kolmogorov-Smirnov technique. The results show that the p-value for work engagement, burnout, and perceived organizational support has a p-value <.05. For that, it can be concluded that the distribution of data is not normally distributed. Furthermore, the classical assumption test that is carried out is the residual test, to determine the normality of the data. The first test to be carried out is the residual test, to see the normality of the data. Based on the residual test performed, from the scatterplots it can be seen that the distribution of the data is around a straight line so that it meets the normality requirements.

Multicollinearity test was conducted to find out whether there is intercorrelation or collinearity between independent variables. The results of the first model found that the tolerance value between burnout and perceived organizational support was 1.000 and VIF 1.000, so it was concluded that there was no multicollinearity in this model. Furthermore, in the second model, burnout, work engagement, and perceived organizational support

variables were found to have the same tolerance value of 0.725 and a VIF value of 1.379, so it can be concluded that there is no multicollinearity in this model.

The heteroscedasticity test was carried out to see whether there were variance differences from one residual to another observation. This test was carried out with the Glesjer test, by transforming the residual values into absolute residuals and followed by regressing the variables. Furthermore, the significance value will be seen, if $> .05$ then it is considered that there are no symptoms of heteroscedasticity. Based on the results of the heteroscedasticity test, it was found that the existing data did not have symptoms of heteroscedasticity with a p-value > 0.05 . The correlation test was carried out non-parametrically using the Spearman's rho technique. Correlation that is considered good has a coefficient value of $0.5 - 1$ or $(-0.5) - (-1)$. Meanwhile, a correlation is considered significant if it has a p value < 0.05 . Based on the results of the correlation test, work engagement has a strong and significant correlation with burnout ($p = 0.000$, $r = -0.510$) and perceived organizational support ($p = 0.000$, $r = 0.582$). While the burnout correlation with perceived organizational support is moderate but has a strong significance ($p = 0.000$, $r = -0.491$).

Regression test is then carried out with moderation analysis. The first regression test to be carried out is to measure the effect of BO on WE. Based on the results of the regression test for path a, the significance value is $p < 0.001$ and the R^2 value is 0.269 which indicates that BO significantly affects WE. BO contributes 26.9% to WE. The next regression test includes a moderator variable, namely POS. Based on the path b moderator regression test, the significance value was $p < 0.001$ and the R^2 value was 0.547. Based on the test results, POS becomes a moderator in the influence of BO on WE with the contribution value of these two variables being 54.7% of WE. Thus, simultaneously increasing the contribution to WE by 27.8%.

Table 4
Hypothesis testing

Hypothesis	R	R ²	P
H ₁	.518	.269	< .001
H ₂	.740	.547	< .001

4. Discussion

This study combines the roles of the BO, POS and WE variables which are a theoretical contribution to the study of health workers during pandemic. The results of the study show that perceived organizational support (POS) moderates the effect of burnout (BO) on the work engagement (WE) of nurses on duty in the COVID-19 isolation room and emergency room in the midst of the COVID-19 pandemic. This means that the level of WE is not only affected by burnout but also POS which plays a role in neutralizing BO's contribution to WE. The role of POS moderation makes nurses survive despite experiencing burnout in the midst of COVID-19 conditions. In line with the results of initial information gathering from nurses who chose to survive the COVID-29 pandemic. This finding is in line with the theory of organizational support, individuals interpret POS as something that makes them comfortable even though they are in difficult circumstances, so that when individual POS increases it will foster a sense of belonging to the job (Eisenberger et al., 2016). Nurses who experience BO in dealing with COVID-19 do not necessarily lose WE because there is the influence of good organizational support to keep them afloat. The importance of the role of organizational support in the workload of nurses which is physically and psychologically pressing is a theoretical contribution of this study.

The results of the study are also in line with the different tests conducted on nurses. The results of the different test found that nurses working in the COVID-19 isolation room (mean = 61.99) perceived significantly higher organizational support than those working in the emergency room (mean = 49.20). Management has made a number of efforts to provide rewards for nurses in the isolation room, including material rewards (for example incentives and nutritional intake) and non-material rewards (including collective prayers, motivation from superiors and legal protection) to maintain their motivation to work during a pandemic. The results of the study confirm that these management efforts have succeeded in building nurses' perceptions of RSUP's concern for them. Even though the perception of nurses in the isolation room is better than those in the emergency room, it does not mean that the emergency room nurses feel that the support from the hospital is low. The descriptive results of the average perceived organizational support score were in the medium (49.54%) and high (45.05%) categories which illustrated that in general nurses in the isolation room and emergency room felt good organizational support during the pandemic. These results are in line with [Armstrong \(2010\)](#) which emphasize the importance of reward management strategies, policies and practices to ensure that the values and contributions of employees to achieve organizational, departmental and group goals are recognized and valued.

The results of the study above also show that nurses really appreciate the organization's non-material reward program in the form of spiritual support which is carried out through collective prayer before starting work. This becomes interesting when it is associated with the characteristics of a religious Indonesian society, so that religiosity is one of the cultural values that is upheld ([Panggabean et al, 2015](#)). In this case the study findings show the role of culture that enriches the reward indicators of POS in line with what [Eisenberger & Stinglhamber \(2011\)](#) emphasized and can be a consideration for organizations in Indonesia to not only focus on the material aspects of reward management.

The results of the study found that nurses' BO levels tended to be moderate and high. This is in line with various previous studies which showed BO rates increased amid the COVID-19 pandemic, especially for nurses placed on the front lines and intensive care ([Giusti et al., 2020](#); [Murat et al., 2020](#); [Nishimura et al, 2020](#)). The work engagement level of nurses is also relatively low amid the COVID-19 pandemic. In line with previous research that nurses tend to have low work engagement when the Covid-19 pandemic is around ([Gómez-Salgado et al., 2021](#); [Mohamed et al., 2021](#)). This increased BO contributes to the low WE of nurses. In line with other research which found that there was a significant negative effect of burnout on work engagement ([Rožman et al., 2018](#)). In addition, the results of this study also support previous studies that nurses with high levels of burnout have low work engagement ([Meynaar et al., 2021](#); [Marti et al., 2019](#); [Hetzl-Riggin et al., 2019](#)). For this reason, it can be said that nurses who carry out their duties at the forefront with the condition of COVID-19 have BO levels that tend to be moderate and high which make the nurses' WE levels fall.

This research has limitations because data collection was carried out during a pandemic so it had to be done online, as a result the process, distribution and filling out of the questionnaire could not be done conventionally. The next limitation is that the study can only use a single method, namely the quantitative method so that although it is quite successful in revealing the interrelationships between the research variables, it is not able to produce a richer and an in-depth overview of each research variable.

5. Conclusion

Based on the research results, it can be concluded that burnout significantly affected the work engagement of nurses during the COVID-19 pandemic. The extent to which employees perceive organizational support can moderate the effect of burnout on nurses' work engagement. If the employees' perception of organizational support for burnout is strong, it will strengthen their work engagement. Based on the findings, the role of the organization is very important to maintain the work engagement and mental health of nurses.

Future studies can use the mixed method to obtain more comprehensive findings. Research by measuring the three variables simultaneously can also be carried out with samples of other health workers, not only focusing on nurses. This suggestion is expected to be quite realistic given the current conditions, especially Indonesia, which is preparing to enter an endemic phase.

Based on the study findings, a number of recommendations can be given to maintain the mental health and productivity of health workers amid the pressure of a pandemic workload. Hospital organizations need to develop appropriate interventions to help increase the level of work engagement of nurses. One way is through a mindfulness-based training program. Mindfulness training focuses on being fully aware of connecting yourself to existing reality. Mindfulness aims for nurses to take actions that can help them when they are in conditions that increase burnout. It is expected that when nurse burnout decreases, it will be able to increase nurse work engagement again. In addition, the hospital can consider improving the existing employee counseling service system or procedure, so that it is more easily accessible to nurses. One way is to manage each nurse's schedule to conduct at least one session every two weeks. So that nurses/employees who experience mental fatigue problems get help from professionals to improve mental health.

References

- Aikacchatra, G. A. L., Dahesihsari, R., & Nilamsari, P. U. (2019). Hubungan iklim komunikasi suportif dan persepsi dukungan organisasi pada buruh operasional di PT X. [Skripsi tidak dipublikasikan]. Universitas Katolik Indonesia Atma Jaya.
- Alcover, C. M., Chambel, M. J., Fernández, J. J., & Rodríguez, F. (2018). Perceived organizational support-burnout-satisfaction relationship in workers with disabilities: The moderation of family support. *Scandinavian Journal of Psychology*, 59(4), 451–461. <https://doi.org/10.1111/sjop.12448>
- Anomneze, E. A., Ugwu, D. I., Enwereuzor, I. K., & Ugwu, L. I. (2016). Teachers' emotional labour and burnout: does perceived organizational support matter? *Asian Social Science*, 12(2), 9. <https://doi.org/10.5539/ass.v12n2p9>
- Armstrong, M. (2010). *Armstrong's Handbook of Reward Management Practice: Improving Performance through Reward* (Third Edition). Kogan Page.
- Babbie, E. (2011). *The basics of social research*. (5th Ed.). Wadsworth.
- Creswell, John W. (2012). *Educational research: planning, conducting, evaluating, quantitative and qualitative research* (4th Ed). Pearson Education Inc.

- Eisenberger, R., Malone, G. P., & Presson, W. D. (2016). *Optimizing perceived organizational support to enhance employee engagement*. Society for Human Resource Management and Society for Industrial and Organizational Psychology. Diunduh dari <https://www.shrm.org/hr-today/trends-and-forecasting/special-reports-and-expert-views/Documents/SHRM-SIOP%20Perceived%20Organizational%20Support.pdf>
- Eisenberger, R., & Stinglhamber, F. (2011). *Perceived organizational support: fostering enthusiastic and productive employees* (1st ed.). American Psychological Association.
- Falatah, R. (2021). The Impact of the Coronavirus Disease (COVID-19) pandemic on nurses' turnover intention: an integrative review. *Nursing Reports*, 11(4), 787–810. <https://doi.org/10.3390/nursrep11040075>
- Giusti, E. M., Pedroli, E., D'Aniello, G. E., Stramba Badiale, C., Pietrabissa, G., Manna, C., Stramba Badiale, M., Riva, G., Castelnuovo, G., & Molinari, E. (2020). The psychological impact of the COVID-19 outbreak on health professionals: a cross-sectional study. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01684>
- Gómez-Salgado, J., Domínguez-Salas, S., Romero-Martín, M., Romero, A., Coronado-Vázquez, V., & Ruiz-Frutos, C. (2021). Work engagement and psychological distress of health professionals during the COVID-19 pandemic. *Journal of Nursing Management*, 29(5), 1016–1025. <https://doi.org/10.1111/jonm.13239>
- Green, S. B. (1991). How many subjects does it take to do a regression analysis. *Multivariate behavioral research*, 26(3), 499-510.
- Havaei, F., Smith, P., Oudyk, J., & Potter, G. G. (2021). The impact of the COVID-19 pandemic on mental health of nurses in British Columbia, Canada using trends analysis across three time points. *Annals of Epidemiology*. Published. <https://doi.org/10.1016/j.annepidem.2021.05.004>
- Hetzel-Riggin, M. D., Swords, B. A., Tuang, H. L., Deck, J. M., & Spurgeon, N. S. (2019). Work engagement and resiliency impact the relationship between nursing stress and burnout. *Psychological Reports*, 123(5), 1835–1853. <https://doi.org/10.1177/0033294119876076>
- Kaplan, R. M., & Saccuzzo, D. P. (2018). *Psychological Testing: Principles, Applications, and Issues* (9th ed). Cengage Learning.
- Kim, M. N., Yoo, Y. S., Cho, O. H., & Hwang, K. H. (2022). Emotional labor and burnout of public health nurses during the COVID-19 pandemic: mediating effects of perceived health status and perceived organizational support. *International Journal of Environmental Research and Public Health*, 19(1), 549. <https://doi.org/10.3390/ijerph19010549>
- Kristiana, I. F., Fajrianti, F., & Purwono, U. (2019). Analisis Rasch dalam Utrecht work engagement scale-9 (Uwes-9) versi Bahasa Indonesia. *Jurnal Psikologi*, 17(2), 204. <https://doi.org/10.14710/jp.17.2.204-217>
- Marti, F., Giannarelli, D., Mitello, L., Fabriani, L., Latina, R., & Mauro, L. (2019). Corelation between work engagement and burnout among registered nurses: an italian hospital survey. *Professioni Infermieristiche* 72(1), 42-49. Doi: [10.7429/pi.2019.72042](https://doi.org/10.7429/pi.2019.72042)
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99-113.

- Maslach, C., & Leiter, M. P. (2017). Understanding burnout. *The Handbook of Stress and Health*, 36–56. <https://doi.org/10.1002/9781118993811.ch3>
- Meynaar, I. A., Ottens, T., Zegers, M., van Mol, M. M., & van der Horst, I. C. (2021). Burnout, resilience and work engagement among Dutch intensivists in the aftermath of the COVID-19 crisis: A nationwide survey. *Journal of Critical Care*, 62, 1–5. <https://doi.org/10.1016/j.jcrc.2020.11.010>
- Mizmir. (2011). Hubungan burnout dengan kepuasan kerja perpustakaan nasional Republik Indonesia. [Skripsi]. Fakultas Ilmu Pengetahuan Budaya Universitas Indonesia. Retrieved from: <http://lib.ui.ac.id/file?file=digital%2F20161055-RB13M206h-Hubungan+burnout.pdf>
- Mohamed, S. A., Hendy, A., Mahmoud, O. E., & Mohamed, S. M. (2021). Mattering perception, work engagement and its realtion to burnout amongst nurses during coronavirus outbreak. *Nursing Open*, 9, 377-384. <https://doi.org/10.1002/nop2.1075>
- Murat, M., Köse, S., & Savaşer, S. (2021). Determination of stress, depression and burnout levels of front-line nurses during the COVID-19 pandemic. *International Journal of Mental Health Nursing*, 30(2), 533–543. <https://doi.org/10.1111/inm.12818>
- Nishimura, Y., Miyoshi, T., Hagiya, H., Kosaki, Y., & Otsuka, F. (2021). Burnout of healthcare workers amid the Covid-19 pandemic: A Japanese cross-sectional survey. *International Journal of Environmental Research and Public Health*, 18(5), 1–8. <https://doi.org/10.3390/ijerph18052434>
- Panggabean, H., Tjitra, H., & Murniati, J. (2014). *Kearifan lokal keunggulan global*. (Indonesian Edition). Elex Media Komputindo.
- Rožman, M., Treven, S., & Cingula, M. (2018). The impact of behavioral symptoms of burnout on work engagement of older employees: the case of Slovenian Companies. *Naše Gospodarstvo/Our Economy*, 64(3), 3–11. <https://doi.org/10.2478/ngoe-2018-0013>
- Said, R. M., & El-Shafei, D. A. (2020). Occupational stress, job satisfaction, and intent to leave: nurses working on front lines during COVID-19 pandemic in Zagazig City, Egypt. *Environmental Science and Pollution Research*, 28(7), 8791–8801. <https://doi.org/10.1007/s11356-020-11235-8>
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Shahzad, F., Du, J., Khan, I., Fateh A., Shahbaz, M., Abbas, A., & Wattoo, M. U. (2020). Perceived threat of Covid-19 contagion and frontline paramedics' agonistic behavior: employing a stressor-strain-outcome perspective. *International Journal of Environmental Research and Public Health*, 17(14), 1-22. <https://doi.org/10.3390/ijerph17145102>
- Xu, D., Zhang, N., Bu, X., & He, J. (2021). The effect of perceived organizational support on the work engagement of Chinese nurses during the COVID-19: the mediating role of psychological safety. *Psychology, Health & Medicine*, 27(2), 481–487. [10.1080/13548506.2021.1946107](https://doi.org/10.1080/13548506.2021.1946107)