# Burnout among nurses: Examining psychosocial work environment causes

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### **Burnout among nurses: Examining** psychosocial work environment causes

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#### Abstract

Background: Medical personnel, and especially staff working in hospitals such as doctors and nurses are exposed to a number of important psychosocial risk factors as a consequence of the type of work. The consequence can be the occurrence of job burnout among nurses. the researchers wanted to analyze work psychosocial support in an effort to control burnout in health workers at Semen Gresik Hospital.

Design and methods: This research is an analytical observational quantitative research. The research was conducted by interviewing respondents regarding the independent variables and the dependent variable without giving any treatment. This research is included in the analytical research design with the aim of analyzing the relationship between variables This research is analyzed using Semi Equation Model (SEM) by calculating outer model, inner model, and the goodness of fit of the model.

Results: The results of testing the first hypothesis give the result that there is a significant positive effect of Psychosocial Work Environment on Burnout with a T-Statistic value (59.577) > 1.96 and p-value (0.000) < 0.05 so it can be stated that there is a significant positive influence of Psychosocial Work Environment on Burnout. This means that hypothesis I can be supported.

Conclusions: The most influenced factor from psychosocial work environment are job demand as well as conflict and offensive behavior. Because nurses have several workload especially during the pandemic, they have the obligation to do administrative, preventive, and curative action in the meantime.

#### Keywords

Psychosocial work environment, burnout, nurses

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#### Introduction

Medical personnel, and especially staff working in hospitals such as doctors and nurses are exposed to a number of important psychosocial risk factors as a consequence of the type of work including high-intensity workloads, self-employment, lack of social support, lack of free time, unfriendly shifts, violent patients, rude or demanding, terminally ill patients.<sup>1,2</sup> These risk factors can change their physical health, and most importantly, their mental health.3,4 The negative consequences of exposure to these psychosocial risk factors outline serious problems not only for the physical and psychological well-being of doctors and nurses, but also for the quality of care provided to their patients.5

Identification of psychosocial risk factors in the work environment to which doctors and nurses may be exposed, will allow to direct preventive actions that can be useful for improving the health and quality of life of professional groups.6

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Burnout in the life of health workers is a term used to describe a psychological state, which arises after long exposure to psychosocial risk factors.<sup>7,8</sup> It has been described as a syndrome that arises as a consequence of working in contact with afflicted people.<sup>9</sup> It is characterized by emotional exhaustion (EE, excessive emotional feelings with work), depersonalization (DP, callousness and interpersonal responsiveness to people) and decreased personal achievement (PA, decreased feelings of competence and achievement at work).<sup>10</sup>

The causes of burnout are more related to the psychosocial work environment (excessive workload, lack of job control, low job social support, lack of autonomy, time pressure, lots of direct contact with patients, etc.), than to personal factors.<sup>11</sup> Based on the description of the background, this study aims to analyze the influence of individual characteristics and of psychosocial work environment on burnout among nurses working at Semen Gresik Hospital (Indonesia).

#### Method

#### Study design

This study is using an analytical, observational, and quantitative research. Data were collected via questionnaire in January–March 2021.

#### Setting

This study was conducted in general hospital, Semen Gresik, Gresik, Indonesia. There was 70% bed occupancy rate because of COVID-19 in 2021 at Semen Gresik Hospital.

#### Participants

The population consists 162 nurses. Using the Slovin Formula with confidence level of 95%, we randomly sampled 115 nurses with this following calculation:

$$n = \frac{N}{1 + Ne^2}$$
$$n = \frac{162}{1 + 162(0.05)^2}$$
$$n = 115 \text{ nurses}$$

After the selection. We also used two inclusion criteria, such as: nurses are able to communicate in Bahasa Indonesia and they are willing to involve in this stud. Finally, the response rate during conducting this study was 100% with 115 out of 115 nurses filled the questionnaires. If sampled nurses did not meet the inclusion criteria, we resampled until the required sample size was reached. After the data collection, another six nurses who met inclusion criteria asked to participate in the study.

#### Outcome

The nurses' burnout represented by emotional fatigue (coded as B1), depersonalization (coded as B2), and impairment of achievement (coded as B3).

#### Independent variables

Nurses' individual characteristics, such as age (coded as IC1), gender (coded as IC2), marital status (coded as IC3), education level (coded as IC4), working period (coded as IC5), and working unit (coded as IC6). Moreover, psychosocial work environment represented by job demands (coded as PWE1), interpersonal relations and leadership (coded as PWE2), organization and job content (coded as PWE3), individual and work interaction (coded as PWE4), social capital (coded as PWE5), health and well-being (coded as PWE6), personality (coded as PWE7), conflict and offensive behavior (coded as PWE8).

Data measurement. Psychosocial work environment is assessed by Copenhagen Psychosocial Questionnaire III (COPSO III) short version with 43 items scoring with 5-point Likert scale and Burnout is assessed using Maslach Burnout Inventory (MBI) with 22 items scoring with 5-points Likert scale. Primary data collection in this study was carried out through filling out a questionnaire containing a draft statement made by the respondent in accordance with the conditions that the respondent felt. Before filling out the questionnaire, the researcher first explained the explanation before the study and then it was approved by the respondent which was stated by signing or Informed Consent approval. Filling out the questionnaire was done independently by the respondent. Questionnaires distributed to respondents were used to obtain data on the dependent and independent variables in this study. This research has received an ethics certificate with the number 13/EA/ KEPK/2021 from The Health Research Ethics Committee, Faculty of Public Health, Airlangga University.

#### Statistical method

This research is analyzed using Semi Equation Model (SEM) by calculating several aspects, which were performed using SmartPLS 3.0, such as:

1. Outer model

Evaluation of the measurement model aims to see the relationship of each indicator with its latent variable or referred to as the outer model. In the outer model, several stages of analysis will be carried out, namely convergent validity test, discriminant validity test and reliability test. The purpose of the validity test is to evaluate whether a research variable can be declared valid or not. The purpose of the reliability test is to evaluate a value in the

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data whether it has reliable results or not. The following are the types of testing and the value requirements that need to be met so that the results of this study can be declared valid and reliable.

2. Inner model

This will be using path diagram, which make it easier for researchers to see the causality relationship to be tested. As for compiling a flow chart, it is illustrated by the relationship between constructs through arrows. Straight arrows represent a direct causal relationship between one construct and another.<sup>12</sup> Exogenous constructs, also known as source variables or independent variables, are not predicted by other variables in the model. An exogenous construct is a construct addressed by a line with one arrowhead.

The Goodness of Fit

The suitability of the model is evaluated through a study of various goodness-of-fit criteria. The first action is to evaluate whether the data used can meet the SEM assumptions, namely sample size, normality and linearity, outliers, multicollinearity and singularity. After that, the researchers conducted a suitability test and statistical test. Several suitability indices and their cut-off values are used to test whether a model is accepted or rejected.

4. Interpretation

After the model has been estimated, the residual must be small or close to zero and the frequency distribution of the residual covariance must be symmetrical. A good model has a small Standardized Residual Variance. The number 2.58 is the limit of the allowable Standardized Residual value, which is interpreted as statistically significant at the 5% level and indicates a substantial prediction error for a pair of indicators.

Finally, this analysis is aim to test the hypothesis such as:

H1: Individual characteristics influence burnout among nurses

H2: Psychosocial work environment influence burnout among nurses

#### Result

#### Individual characteristics

Around 121 nurses were included in our study (response rate=106.14%%). The predominant characteristics were the following: early adult (n=36; 29.8%), female (n=84; 69.4%), married (n=116; 95.9%), graduated from Diploma III (n=101; 83.5%) with >10 years of experience in this field (n=88; 72.7%), and involve in in-patient carepavilion (n=21; 17.4%) (Table 1).

 Table 1. Characteristic of nurses working at the Semen
 Gresik Hospital, Gresik Indonesia, 2021.

Variables	Frequency (n)	Percentage (%)
Age 12		
Late teenagers (17–25 years old)	10	8.3
Early adult (26–35 years old)	36	29.8
Late adult (36-45 years old)	52	43
Early elderly (46–55 years old)	23	19
34 <b>T</b> otal	121	100
Gender		
Male	37	30.6
Female	84	69.4
Total	121	100
Marital status		
Single	4	3.3
Married	116	95.9
Divorce	I	0.8
Total	121	100
Education		
Diploma III	101	83.5
Bachelor	18	14.9
Diploma IV	2	1.7
Total	121	100
Working period		
<5 years	21	17.4
5–10 years	12	9.9
>10 years	88	72.7
Total	121	100
Working unit		
Hemodialysis	11	9.1
Central surgery	14	11.6
Intensive care unit	9	7.4
Emergency care	14	11.6
Out-patient care	12	9.9
In-patient care—pavilion	21	17.4
In-patient care—regular	16	13.2
Chemotherapy	6	5
Medical check-up unit	4	3.3
Maternal care	14	11.6
Total	121	100

#### Descriptive analysis

In this study, descriptive analysis and hypothesis testing will be carried out using the *Structural Equation Modeling* (SEM) method. This study will use the SmartPLS 3.0 software to determine the relationship between the influence of *Individual Characteristics* and *Psychosocial Work Environment* on *Burnout*. The data used as many as 121 respondents obtained through a *survey*.

The following is a description of the results of the answers that come from respondents to each variable indicator. The descriptive statistics that will be used are the *mean* for each dimension and indicator. The following is 4

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Variable	Indicator	Description.	Mean	Min	Max
Psychosocial work	PWEI	Job demands	3.752	1.000	4.000
nvironment	PWE2	Interpersonal relations and leadership	3.298	1.000	2.000
	PVVE3	Organization and job content	3.380	1.000	3.000
	PVVE4	Individual and work interaction	3.215	1.000	2.000
	PVVE5	Social capital	3.496	1.000	3.000
	PVVE6	Health and well-being	3.413	1.000	10.000
	PWE7	Personality	3.653	1.000	5.000
	PWE8	Conflict and offensive behavior	3.810	1.000	5.000
Burnout	BI	Emotional fatigue	3.504	1.000	5.000
	B2	Depersonalization	3.364	1.000	5.000
	B3	Impairment of achievement	3.587	1.000	5.000

the average result of the answers of 121 respondents in this study in Table 2.

#### Outer model evaluation

Evaluation of the measurement model aims to see the relationship of each indicator with its latent variable or referred to as the outer model. In the outer model, several stages of analysis will be carried out, namely convergent validity test, discriminant validity test and reliability test. The purpose of the validity test is to evaluate whether a research variable can be declared valid or not. The purpose of the reliability test is to evaluate a value in the data whether it has reliable results or not. The following are the types of testing and the value requirements that need to be met so that the results of this study can be declared valid and reliable.

The first result of the convergent validity test where several indicators are found that have an outer loading <0.5, using Fornell and Lacker Criterion,<sup>13</sup> which amounts to four invalid indicators originating from the Individual Characteristics. So it needs to be removed from this study and test the validity of the second time with indicators that have been valid.

Table 3 is the result of a convergent validity test after deducting four invalid indicators, where all variables have an outer loading >0.50 so that all indicators are valid and can be used in further analysis. The next step is to see the value of AVE, composite reliability and Cronbach Alpha on each variable in Table 4 with the following results:

#### Discriminant validity test

The discriminant validity test can be analyzed using the cross loading which aims to see the level of correlation between indicators in the same construct. A good model is a model with a *cross loading* with the variable itself being greater than the other variables. The results of the discriminant validity test at the initial stage can be seen in Table 5 follows:

 Table 3.
 Convergenity and reliability test between individual characteristics, psychosocial work environment, and burnout.

	В_	IC	PWE_
BI	0.64791667		
B2	0.65763889		
B3	0.6111111		
IC2		0.50625	
IC6		0.62847222	
PWEI			0.55138889
PWE2			0.50208333
PWE3			0.52222222
PWE4			0.61805556
PWE5			0.64375
PWE6			0.60902778
PWE7			0.6
PWE8			0.65555556

 Table 4. Result of convergent validity after deducting four invalid indicators.

	Cronbach's alpha	rho_A		Average variance extracted (AVE)
В	0.63194444	0.63541667	0.65486111	0.58819444
IC_	0.37430556	0.42986111	0.55902778	0.46944444
PWE_	0.65555556	0.65833333	0.6625	0.50138889

The following is a model of the relationship (*outer model*) between variables with indicators that has been valid. See Figure 1 for Model of The Relationship (Outer Model) between Variables with Indicators That has Been Valid.

#### R-square coefficient

One of the evaluations of this structural model is by using the R-square value or the coefficient of determination. The coefficient of determination will describe a

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further relationship between the independent variable and the dependent variable. The value of R Square is in the range between 0 and 1. If the value of R Square is getting closer to the value of 1 (one), the relationship between variables will be better. The following is the value of  $R^2$  for each of the dependent variables of this study, see Table 6.

Table 5. Discriminant validity test
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	B_	IC	PVVE_
BI	I	-0.250	I
B2	I	-0.171	0.59097222
B3	I	-0.081	0.55277778
IC2	-0.113	I	-0.179
IC6	-0.182	I	-0.249
PWEI	I.	-0.142	I.
PWE2	0	-0.216	I.
PWE3	I	-0.232	I
PWE4	I	-0.238	I.
PWE5	I.	-0.282	1
PWE6	I.	-0.215	I.
PWE7	I	-0.174	I.
PWE8	I	-0.294	I

#### The relationship between individual characteristics and psychosocial work environment with burnout

The research hypothesis test will use the *T*-Statistic value. At a significant level of 5%, a variable can be said to have a significant effect on other latent variables if the *T*-Statistic value>1.96 or *p*-Value<0.05. If the *T*-Statistic value is <1.96 or *p*-Value>0.05, the research variable has no significant effect on other latent variables.<sup>14</sup> Path coefficient aims to measure the extent of the relationship between latent variables. If the coefficient value is close to +1, then the relationship between variables is positive or the value is stronger in predicting the dependent variable, see Table 7.

 Hypothesis testing 1 (There is a significant influence of Psychosocial Work Environment on Burnout)

The results of testing the first hypothesis give the result that there is a significant positive effect of Psychosocial Work Environment on Burnout with a *T*-Statistic value (59.577) >1.96 and *p*-value (0.000) <0.05 so it can be stated that there is a significant positive influence of Psychosocial Work Environment on Burnout. This means that hypothesis 1 can be supported.

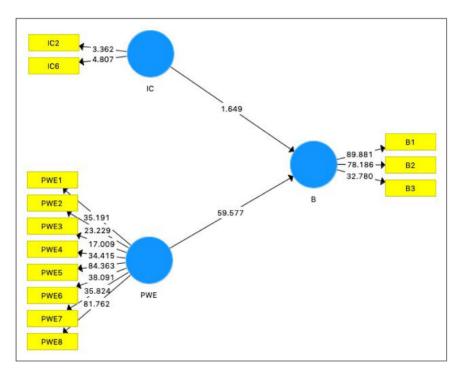


Figure 1. Model of the relationship (outer model) between variables with indicators that has been valid.

- 2. Testing hypothesis 2 (There is no significant effect of Individual Characteristics on Burnout)
- The test results of the second hypothesis give the result that there is no significant effect of Individual Characteristics on Burnout with a coefficient value of -0.037 (Negative), *T*-Statistic value (1.649) <1.96 and *p*-value (0.138) >0.05 so it can be stated that there is no significant effect of Individual Characteristics on Burnout. This means that hypothesis 2 cannot be supported.

#### Discussions

#### Influence of psychosocial work environment and burnout

The results of the SEM test show that the *t*-count of individual characteristics is at 59.577. This indicates that there is an influence of the psychosocial work environment on burnout in nurses. Psychosocial work environment is psychosocial as an approach used to understand the factors that shape or influence the behavior and ways of thinking of individuals in certain social situations.<sup>15</sup> In line with that, the term psychosocial also describes an individual's complex social relationships and the factors that influence the individual's mental condition.<sup>16</sup>

The psychosocial aspect of the work environment affects burnout in nurses, this is due to the high work demands of nurses, especially during a pandemic, causing nurses to have to work and be more responsible in their work.<sup>17</sup> Prieto et al.<sup>18</sup> investigated the relationship of job demands and burnout in 274 teachers (57% females) drawn from secondary schools in Spain. Initial response and loss to follow-up were acceptable. The period between the two surveys was only 8 months. Exposure was operationalized by job demands (i.e. quantitative overload, mental demands, emotional demands, role ambiguity, and role conflicts). The work demands of nurses during the

Table 6	. R square coefficient.	
	R square	R square adjusted
В	0.876	0.873

pandemic in the form of nurses are faced with many tasks that are not the duties of a nurse, making the workload heavier.19 Nurses have to deal with and deal with too many patients during the pandemic, followed by the number of COVID-19 patients that always increases from time to time. According to Hakman<sup>20</sup> nurses who experienced heavy burnout with a heavy workload during the emergence of COVID-19 were due to nurses using PPE according to their working hours, at that time they did not touch food or drinks before the completion of the set working hours, and very limited rest time. Salcha et al.21 added that nurses who handled COVID-19 patients were isolated for 14 days, causing nurses to be prevented from carrying out their social activities which caused them to isolate themselves from family, friends and neighbors. Because, many people think that nurses who handle COVID-19 patients will also be indicated.

The demands of a nurse's job can be circumvented by distributing tasks to nurses fairly and providing deadlines, especially in looser administrative areas.<sup>22</sup> Thus, nurses do not feel that their work is piling up and they have to do many things related to their work.

In addition to high job demands, it turns out that the conflict and offensive behavior aspect of nurses is one of the most influential psychosocial work environment indicators in the incidence of burnout.23 Nurses stated that they often get unpleasant behavior from co-workers, bosses, and patients. The nurse stated that some felt that there was slander from their co-workers, causing their superiors to have a wrong perception of the nurse. What has been described so far evidences that health care professionals are highly exposed to violence in the workplace. This exposure may have a negative impact on their health, job satisfaction or emotional exhaustion and stress at work.2425 Recently, it has been observed that at least 5 out of 10 professionals show a high degree of emotional exhaustion, 6 out of 10 show a high degree of depersonalization and 6 out of 10 show a low degree of self-fulfillment.25 Other studies found that 26.7% of participants had high emotional exhaustion, 38.1% had high cynicism and 35.6% had low self-fulfillment. Specifically, in Spain, where the present study was carried out, 23% emotional exhaustion, 11.4% cynicism, and 12.8% reduced self-fulfillment were observed in health professionals.24

Table 7. The relationship between individual characteristics and psychosocial work environment with burnout.

Hypothesis	Original samples	T statistics	p-Values	Hypothesis Analysis
H <sub>1</sub> : There is a significant positive effect of Psychosocial Work Environment on Burnout	0.067	1.649	0.06944444	Supported
H <sub>2</sub> : There is a significant positive effect of Individual Characteristics on Burnout	0.66041667	59.577	0.000	Not supported

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Then, the condition of the dual role that nurses have is the most supportive psychosocial work environment indicator. Nurses have a role to handle patients in the curative field, but must also be responsible for the implementation of the COVID-19 vaccination, along with daily reports, and other administrative activities.26 Thus, nurses find it difficult to divide their time in completing their tasks. Paden and Buchler in Jimad,<sup>27</sup> define dual role conflict as a role conflict that arises between the expectations of two different roles that a person has. At work, a professional woman is expected to be aggressive, competitive, and able to carry out her commitments to work. At home, women are often expected to take care of their children, love and care for their husbands. Netemeyer28 in Hennessy, defines dual role conflict as conflict that arises due to work-related responsibilities interfering with demands, time and tension in the family.

#### Conclusion

- 1. There is a psychosocial work environment influence on burnout with *t* count 59.577
- Burnout can be caused significantly by work demands, non-physical offensive behavior, and dual role conflicts experienced by nurses.
- Nurses forced to have additional workload during the pandemic, including doing administrative, preventive, and curative action in the meantime.
- 4. Health and safety program, such as counseling, mental health training, and mindfulness event should be conducted for both nurses' mental and social health. Moreover, spreading the tasks not only to nurses but also to the other health practitioners especially in preventive and administrative aspects will be useful to reduce nurses' job demand which will affect burnout.

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#### Supplemental material

Supplemental material for this article is available online.

#### References

- Schaufeli W. Burnout. In: Firth-Cozens J and Payne R (eds) Stress in health professionals. New York: John Wiley & Sons, 1999, pp.17–32.
- Bährer-Kohler S. Burnout for experts: Prevention in the context of living and working. New York: Springer, 2013. pp.1–257.
- Burr H, Berthelsen H, Moncada S, et al. The third version of the Copenhagen Psychosocial Questionnaire. Saf Health Work 2019; 10: 482–503.
- Ohue T, Moriyama M and Nakaya T. Examination of a cognitive model of stress, burnout, and intention to resign for Japanese nurses. *Jpn J Nurs Sci* 2011; 8: 76–86.
- Visser MR, Smets EM, Oort FJ, et al. Stress, satisfaction and burnout among Dutch medical specialists. *CMAJ* 2003; 168: 271–275.
- Weibel L, Gabrion I, Aussedat M, et al. Work-related stress in an emergency medical dispatch center. *Ann Emerg Med* 2003; 41: 500–506.
- Van Dyne L and Pierce JL. Psychological ownership: Feelings of possession and work-place attitudes and behavior (Working Paper). East Lansing, MI: Eli Broad School of Management, Michigan State University, 2003.
- Evers W, Tomic W and Brouwers A. Aggressive behaviour and burnout among staff of homes for the elderly. *Int J Ment Health Nurs* 2002; 11(1): 2–9.
- Nuallaong W. Burnout symptoms and cycles of burnout: the comparison with psychiatric disorders and aspects of approaches. In: Bährer-Kohler S (ed.) *Burnout for experts: Prevention in the context of living and working*. Springer Science + Business Media, 2013, pp.47–72.
- Schaufeli WB (2015) Engaging leadership in the job demands-resources model. *Career Dev Int* 2015; 20(5): 446–463.
- Imai H, Nakao H, Tsuchiya M, et al. Burnout and work environments of public health nurses involved in mental health care. Occup Environ Med 2004; 61: 764–768.
- Ferdinand A. Structural equation modelling dalam penelitian manajemen. Semarang: Penerbit Universitas Diponegoro, 2000.
- Ab Hamid MR, Sami W and Sidek MM. Discriminant validity assessment: use of Fornell & Larcker criterion versus HTMT criterion. J Phys Conf Ser 2017; 890(1): 012163.
- Hair JF, Ringle CM and Sarstedt M. PLS-SEM: indeed a silver bullet. J Mark Theory Pract 2011; 19(2): 139–152.
- Javaid MU, Isha ASN and Ghazali Z. Brief communication on psychosocial work environment and wellbeing in relation to job demands-resources: A study on Malaysian public health perspective. *Pertanika J Soc Sci Humanit* 2017; 25(1): 39–44.
- Chaplin JP. Kamus Lengkap Psikologi. Jakarta: PT Raja Grafindo Persada, 2006.
- Escribà-Agüir V, Martín-Baena D and Pérez-Hoyos S. Psychosocial work environment and burnout among emergency medical and nursing staff. *Int Arch Occup Environ Health* 2006; 80(2): 127–133.

- Lorente Prieto L, Salanova Soria M, Martínez Martínez I, et al. Extension of the Job Demands-Resources model in the prediction of burnout and engagement among teachers over time. *Psicothema* 2008; 20(3): 354–360.
- Faucett JM, Corwyn RF and Poling TH. Clergy Role Stress: interactive effects of role ambiguity and role conflict on intrinsic job satisfaction. *Pastoral Psychol* 2013; 62: 291–304.
- Hakman H, Suhadi S and Yuniar N. Pengaruh Beban Kerja, Stres Kerja, Motivasi Kerja Terhadap Kinerja Perawat Pasien Covid-19. *Nurs Care Health Technol J* 2021; 1(2): 47–54.
- Salcha MA, Juliani A, Program A, et al. Stres Kerja pada Perawat Covid-19 di Rumah Sakit Pelamonia Kota Makassar Work Stress for Covid-19 Nurses at Pelamonia Hospital Makassar City. *Miracle J Public Health* 2021; 4(1): 123–131.
- Gabel S. Power, leadership and transformation: the doctor's potential for influence. *Med Educ* 2012; 46(12): 1152–1160.
- Seidler A, Thinschmidt M, Deckert S, et al. The role of psychosocial working conditions on burnout and its core com-

ponent emotional exhaustion – a systematic review. J Occup Med Toxicol 2014; 9(1): 10.

- Pina D, Llor-Zaragoza P, López-López R, et al. Assessment of non-physical user violence and burnout in primary health care professionals. The modulating role of Job Satisfaction. *Public Health Front* 2022; 10: 1–8.
- 25. Onoja AJ, Sanni F, Shaibu J, et al. Baseline and Postintervention Assessment of sexual violence and condom use among female Sex workers in a Semiurban African Community. Soc Heal Behav 2020; 3: 124.
- Hera WR, Rasyidin A and Hasmin. Pengaruh Konflik Peran ganda, Beban Kerja Dan Perawat Wanita. J Mirai Manag 2016; 1: 119–135.
- Jimad H. Konflik Pekerjaan-Keluarga, Stress Dan Kinerja. Jurnal Bisnis Dan Manajemen 2010; 7(1): 55–67.
- Netemeyer RG, Maxham III JG and Pullig C. Conflicts in the work–family interface: links to job stress, customer service employee performance, and customer purchase intent. *J Mark* 2005; 69(2): 130–143.

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