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Burnout Prevention Efforts for Healthcare Professionals in Hospital that Server COVID-19 Patients During Pandemic

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Abstract

Background: COVID-19 pandemic has become main workload issue for health workers in hospitals. Pandemic period requires health workers to endure working under stressful conditions and exposure infection risks. **Objective**: It aims to determine prevention efforts in workplace that influence on burnout. **Methods:** It was cross-sectional study in six hospitals. Population are HCPs consisting of doctors, nurses, pharmacists, nutritionists, medical laboratory personnel, and radiographers. It used primary data based on Copenhagen Burnout Inventory (CBI) questionnaire combined with questionnaire refers to Health Minister No.HK.01.07/MENKES/1591/2020 regarding burnout prevention efforts. Analysis with univariate and bivariate with chi-square test to determine relationship between characteristics and prevention efforts to burnout incidence. Research has passed ethical review from Lavalette Hospital. **Results:** The result was obtained from 318 respondents from six hospitals. Most respondents were women (76.4%), married (77.7%), had worked ≥6 years (56.0%) and nurses (63.5%). Individual prevention has relationship with personal, work-related, and patient-related burnout. Group prevention has a relationship with work-related and patient-related burnout. Organizational prevention has relationship with personal, work-related, and patient-related burnout ($p<0.05$). **Conclusion:** Prevention efforts for individuals, groups, and organizations are related to burnout. Individual prevention influences work-related burnout, and professions influence personal and work-related burnout. The results can be used as a reference for providing appropriate and effective burnout prevention interventions through individual, group, or organizational prevention

Keywords: healthcare professionals, burnout prevention, covid-19, CBI, hospital

INTRODUCTION

After almost three years, the COVID-19 pandemic is still not over. In fact, even mutation of the virus has given rise to spikes enhancement case new in various places around the world. Treatment of patients with COVID-19 throughout the world continues to burden hospitals which are the final line of defense for sufferers who require hospitalization or treatment due to COVID-19's infection. The pandemic requires health workers to cope with increased workloads or burdens under stressful conditions. Rapidly changing new service guidelines and redeployment, otherwise high-risk units while raising fears of transmitting infection to loved ones (1).

Patient care is an activity with full of pressure and stressor due to patients needs and their families as quickly as possible, uncertainty about the results of care, long working hours, limited number of employees, the need for coordination with various professions and various other things. The pressure of the work environment causes the level of burnout in the health care environment to be quite high, even outside of the pandemic (2).

Health workers not only have a high-risk exposure of infection, but also have a high burden of mental health stress, especially those who work directly with people who have or are suspected of having COVID-19 (1). Study in China with 1257 healthcare workers (60.8% nurses and 39.2% doctors), of which 41.5% were frontline professionals. They concluded that 71.5% suffered from distress, 50.4% suffered from depressive symptoms, and 44.6% suffered from anxiety, and these consequences were more pronounced in female nurses. Another study from China with 134 frontline workers (41% nurses, 35.1% doctors, 23.9% support staff) showed that more than half of healthcare workers had moderate to severe levels of stress (2).

The Indonesian government formed the Committee for Handling COVID-19 and National Economic Recovery (KPC-PEN) to deal with the COVID-19 pandemic by coordinating various programs for handling individual sufferers as well as aspects of public health and the economy. The Ministry of Health issued Decree HK.01.07/MENKES/1591/2020 for Health Protocols in Health Service Facilities in the Context of Preventing and Controlling COVID-19, referring to scientific developments regarding COVID-19 and World Health Organization (WHO) policy directions. This Health Protocol is divided into activities carried out by 1) Health Service Facility Leaders; 2) Health workers and non-health workers who provide services in health service facilities, divided into (a) General and (b) Special; 3) Patients; 4) Visitors to Health Service Facilities (3).

Many patients with COVID-19 still need to be treated after almost three years of the pandemic, which can cause psychological pressure on Health Care Professionals (HCPs). Therefore, appropriate intervention to prevent burnout is needed. This research aims to determine efforts to prevent burnout in the workplace that have an impact on preventing and/or overcoming burnout. The gap is caused by the lack of workplace support and specific interventions for the prevention of burnout individually, groups, and organizations. So far, many workplaces still only handle cases after burnout occurs in health workers.

OBJECTIVE

This study aims to determine efforts to prevent burnout in the workplace that influences to prevent and/or overcome the occurrence of burnout.

METHODS

Design

This research was observational research with a cross-sectional study design that explains the relationship between variables through hypothesis testing. The variables studied were the level of burnout in Health Care Professionals (HCPs) and the effectiveness of burnout prevention efforts that had been carried out by the Hospital. This research uses primary data in the form of The Copenhagen Burnout Inventory (CBI) questionnaire to measure the level of burnout of Health Care Professionals and questionnaires related to burnout intervention or prevention efforts that have been carried out by the Hospital.

Sample, sample size, & sampling technique

The research was conducted in the Emergency Unit, Inpatient Unit, ICU, Maternity Room, Operating Room in Hospitals

that receive COVID-19 patients. The research was conducted from June to July 2022 at six hospitals, i.e: Pertamina Central Hospital, Bhakti Husada Hospital, HVA Toelongredjo Hospital, Kaliwates Hospital, Krakatau Medika Hospital and Lavalette Hospital. Target population was HCPs consisting of doctors, nurses, pharmacists, nutritionists, medical laboratory personnel, and radiographers.

Inclusion criteria are HCPs who provide direct care to COVID-19 patients in the ER and inpatients as permanent employees and partners with a work contract of at least 1 year. The exclusion criteria are volunteer professional workers (contracted for 3 to 6 months). The sample was taken from inclusion criteria of all population and met the minimum sample size. The number of samples was determined based on hypothesis test formula for difference of two proportions with minimum sample size is 295 persons.

Instrumentation and data collection process

The dependent variable is HCP's burnout. Burnout was measured using The Copenhagen Burnout Inventory (CBI) in the form of a questionnaire consisting of 19 questions. CBI divides burnout into 3 aspects, namely personal burnout, work-related burnout, and patient-related burnout. The answer to the question can be in the form of the options "always, often, sometimes, rarely and never/almost never" or the answer options "at a very high level, high, somewhat high, low and very low" coded as a score of 100, 75, 50, 25, and 0. The score range for the burnout scale is 0-100. Higher scores indicate higher levels of fatigue. A score higher than 50 indicates burnout (4).

Independent variable was efforts to prevent burnout consisting of 22 questions which refer to Decree of Health Minister HK.01.07/MENKES/1591/2020 concerning health protocols in health service facilities in the context of preventing and controlling COVID-19 (5). Efforts to prevent burnout are divided into three, i.e: individual, group and organizational prevention efforts. Individual prevention efforts are assessed based on compliance and environmental indicators. Group prevention efforts are assessed based on supervision, cooperation, communication, and reporting. Meanwhile, organizational prevention efforts are assessed based on training, regulations, and facility policies.

The questionnaire has been tested on HCPs in some hospitals with Cronbach's alpha reliability results based on standardized items of more than 80%. The validity results show that there is one invalid question in the burnout prevention questionnaire regarding the question regarding the respondent's efforts to set aside 30 minutes of time to do physical exercise in 24 hours. This shows that most respondents do not carry out routine physical exercise as an effort to prevent burnout, so this question was excluded, and the number of burnout prevention questionnaire was 22 out of 23 questions.

Data analysis

Data analysis was carried out univariate and bivariate. Univariate analysis was carried out to describe characteristics of respondents, prevention efforts and the incidence of burnout. The question score results for each indicator are categorized into good and poor. Categorization was carried out based on data distribution by carrying out the Kolmogorov normality test. Bivariate analysis was carried out to determine the relationship between characteristics and prevention efforts using the chi-square test with a significance of 5%. Data analysis used the IBM SPSS Statistics Premium version 24 program.

Ethical consideration

This research has passed ethical review from Lavalette Hospital Reference Number: XX-SURKT/22.229.

RESULTS

The results showed that most of respondents were women (76.4%), married (77.7%), work more than 6 years (56.0%), ages ≥ 31 years old (54, 7%) and nurse profession (63.5%). Results also showed three indicators of efforts to prevent burnout by individuals, groups and organizations. All of indicators have good categories (Table 1).

Table 1. Characteristic Variables

Variable	Frequency	Percentage
Age (median=31)		
< 31 years	144	45.3
≥ 31 years old	174	54.7

Variable	Frequency	Percentage
Gender		
Man	75	23.6
Woman	243	76.4
Marital Status		
Not married yet	71	22.3
Married	247	77.7
Length of Work (median=6)		
< 6 years	140	44.0
≥ 6 years	178	56.0
Profession		
Nutritionist	5	1.6
Analyst laboratory	19	6.0
Midwife	14	4.4
Doctor	39	12.3
Pharmacy	29	9.1
Nurse	202	63.5
Radiographer	10	3.1
Effort Prevention of Individual		
Not good	158	45.6
Good	160	54.4
Effort Prevention of Group		
Not good	158	49.7
Good	160	50.3
Effort Prevention of Organization		
Not good	158	49.7
Good	160	50.3
Personal Burnout		
No	159	50.0
Yes	159	50.0
Work-related burnout		
No	157	49.4
Yes	161	50.6
Patient-related burnout		
No	151	47.5
Yes	167	52.5

Table 2 showed respondents who experienced personal burnout was 50%, work-related burnout was 50.6% and patient-related burnout was 52.5% [Table 2]. Then, analysis bivariate was carried out for associating variable independent with dependent. Research results show profession, effort prevention individual and prevention organization own significant relationship to personal-related burnout with an odds ratio <1 (significant effort for prevention) [Table 3].

Marital status, profession, efforts prevention individual, group, or organization relate in significant with work-related burnout and patient-related burnout with odds ratio <1 [Table 4 & 5].

Bivariate analysis result showed that environment is dominant indicator of effort prevention individual to burnout incident. Supervision is the dominant indicator of effort prevention group to burnout incident. Meanwhile on effort prevention organization there are two indicators dominant. Regulations are the dominant indicator of personal burnout. Policy facility is a dominant indicator to work-related burnout and patient-related burnout [Table 6].

DISCUSSION

Burnout is a mental health problem characterized by a state of emotional, physical and mental exhaustion (6). Efforts to prevent work-related burnout are very important, not only for the quality of life of workers/health workers, but also to prevent financial losses due to absenteeism and turnover. Research by Awa et al. analyzed various burnout prevention interventions that can reduce fatigue in the form of preventive intervention programs, namely individual, group and organizational (7). Related research related for burnout prevention interventions is still very lacking. Prevention that has been carried out in burnout cases often focuses on the individual, such as previous research by Ahola, et al (8). Therefore, this research was conducted not only focusing on efforts to prevent individual burnout but also includes groups and organizations.

The research results showed that most respondents experienced burnout, both personal burnout, work-related burnout, and patient-related burnout. Based on the characteristics of the respondents, most of the respondents in the six hospitals were women and worked as nurses. This shows that the majority of nurse's experience burnout based on the CBI instrument. Research by Carl, et al (2022) shows that personality, profession, and gender influence burnout where burnout has increased personal and social costs in society (9). Fatigue is a central dimension of burnout, especially in health care professions that relate to clients and emotionality, especially in female workers (10).

The nursing profession is the spearhead in health services, so it is identified as having various job demands in serving patients in

hospitals during the COVID-19 pandemic (11). Some typical examples of job demands are quantitative, time pressure, conflict, and emotional demands (12). This has different effects on burnout. Previous research has found that in general, job demands are associated with burnout (13,14) and specifically with psychological exhaustion (12)

Table 2. Bivariate Analysis Personal-Related Burnout

Variable	*Personal -related Burnout*		p-value	OR
	No burnout n (%)	Burnout n (%)		
Age (median=31)				
< 31 years	73 (50.7%)	71 (49.3%)	0.910	1,052
≥ 31 years old	86 (49.4%)	88 (50.6%)		
Type Sex				
Man	45 (60.0%)	30 (40.0%)	0.064	1,697
Woman	114 (46.9%)	129 (53.1%)		
Marital Status				
Married yet	31 (43.7%)	40 (56.3%)	0.281	0.721
Marry	128 (51.8%)	119 (48.2%)		
Length of Work (median=6)				
< 6 years	69 (49.3%)	71 (50.7%)	0.910	0.950
≥ 6 years	90 (50.6%)	88 (49.4%)		
Profession				
Nutritionist _	2 (40.0%)	3 (60.0%)	<0.001*	-
Analyst laboratory	6 (31.6%)	13 (68.4%)		
Midwife	5 (35.7%)	9 (64.3%)		
Doctor	5 (12.8%)	34 (87.2%)		
Pharmacy	11 (37.9%)	18 (62.1%)		
Nurse	126 (62.4%)	76 (37.6%)		
Radiographer	4 (40.0%)	6 (60.0%)		
Therapist				
Effort Prevention Individual				
Not good	59 (40.7%)	86 (59.3%)	0.003*	0.501
Good	100 (57.8%)	73 (42.2%)		
Effort Prevention Group/ Cohort				
Not good	70 (44.3%)	88 (55.7%)	0.057	0.635
Good	89 (55.6%)	71 (44.4%)		
Organization				
Not good	65 (41.1%)	93 (58.9%)	0.002*	0.491
Good	94 (58.8%)	66 (41.3%)		

**significance <0,05*

Table 3. Bivariate Analysis Work-Related Burnout

Variable	*Work -related Burnout*		p-value	OR
	No burnout n (%)	Burnout n (%)		
Age (median=31)				
< 31 years	72 (50.0%)	72 (50.0%)	0.927	1.047
≥ 31 years old	85 (48.9%)	89 (51.1%)		
Gender				
Man	41 (54.7%)	34 (45.3%)	0.359	1.320
Woman	116 (47.7%)	127 (52.3%)		
Marital Status				
Married yet	27 (38.0%)	44 (62.0%)	0.042*	0.552
Marry	130 (52.6%)	117 (47.4%)		
Length of Work (median=6)				
< 6 years	67 (47.9%)	73 (52.1%)	0.714	0.897
≥ 6 years	90 (50.6%)	88 (49.4%)		
Profession				

Variable	*Work -related Burnout*		p-value	OR
	No burnout n (%)	Burnout n (%)		
Nutritionist _	3 (60.0%)	2 (40.0%)	<0.001*	-
Analyst laboratory	9 (47.4%)	10 (52.6%)		
Midwife	6 (42.9%)	8 (57.1%)		
Doctor	3 (7.7%)	36 (92.3%)		
Pharmacy	11 (37.9%)	18 (62.1%)		
Nurse	121 (59.9%)	81 (40.1%)		
Radiographer	4 (40.0%)	6 (60.0%)		
Effort Prevention of Individual				
Not good	51 (35.2%)	94 (64.8%)	<0.001*	0.343
Good	106 (61.3%)	67 (38.7%)		
Effort Prevention of Group				
Not good	59 (37.3%)	99 (62.7%)	<0.001*	0.377
Good	98 (61.3%)	62 (38.8%)		
Effort Prevention of Organization				
Not good	60 (38.0%)	98 (62.0%)	<0.001*	0.398
Good	97 (60.6%)	63 (39.4%)		

**significance <0,05*

Table 4. Bivariate Analysis Patient-Related Burnout

Variable	*Patient-related Burnout*		p-value	OR
	No burnout n (%)	Burnout n (%)		
Age (median=31)				
< 31 years	67 (46.5%)	77 (53.5%)	0.843	0.932
≥ 31 years old	84 (48.3%)	90 (51.7%)		
Type Sex				
Man	35 (46.7%)	40 (53.3%)	0.976	0.958
Woman	116 (47.7%)	127 (52.3%)		
Marital Status				
Married yet	24 (33.8%)	47 (66.2%)	0.013*	0.482
Marry	127 (51.4%)	120 (48.6%)		
Length of Work (median=6)				
< 6 years	63 (45.0%)	77 (55.0%)	0.501	0.837
≥ 6 years	88 (49.4%)	90 (50.6%)		
Profession				
Nutritionist	3 (60.0%)	2 (40.0%)	0.002*	-
Analyst laboratory	9 (47.4%)	10 (52.6%)		
Midwife	6 (42.9%)	8 (57.1%)		
Doctor	8 (20.5%)	31 (79.5%)		
Pharmacy	9 (31.0%)	20 (69.0%)		
Nurse	112 (55.4%)	90 (44.6%)		
Radiographer	4 (40.0%)	6 (60.0%)		
Effort Prevention Individual				
Not good	51 (35.2%)	94 (64.8%)	<0.001*	0.396
Good	100 (57.8%)	73 (42.2%)		
Effort Prevention Group/ Cohort				
Not good	56 (35.4%)	102 (64.6%)	<0.001*	0.376
Good	95 (59.4%)	65 (40.6%)		
Effort Prevention Organization				
Not good	60 (38.0%)	98 (62.0%)	0.001*	0.464
Good	91 (56.9%)	69 (43.1%)		

**significance <0,05*

Table 5. Analysis Bivariate Indicator Effort Prevention to Burnout Incident

Indicator	Personal burnout				Work-related burnout				Patient-related burnout			
	Sig	OR	95% OR		Sig	OR	95%CI		Sig	OR	95%CI	
			Lower	Upper			Lower	Upper			Lower	Upper
Effort prevention of individual												
Obedience	0.069	0.644	0.412	1,008	0.242	0.747	0.478	1,167	0.016*	0.561	0.357	0.88
Environment	<0.001*	0.264†	0.160	0.436	<0.001*	0.210†	0.125	0.353	<0.001*	0.374†	0.229	0.61
Effort prevention of group												
Supervision	0.002*	0.453†	0.277	0.742	<0.001*	0.207†	0.121	0.353	<0.001*	0.288†	0.171	0.486
Cooperation	0.335	0.770	0.479	1,236	0.196	0.710	0.442	1,142	0.282	0.748	0.465	1,204
Communication	0.004*	0.474	0.288	0.779	<0.001*	0.307	0.182	0.516	0.023*	0.546	0.332	0.898
Reporting	0.024*	0.584	0.374	0.913	0.001*	0.447	0.285	0.703	<0.001*	0.416	0.264	0.655
Effort prevention of organization												
Training	0.910	0.951	0.612	1,477	0.210	0.735	0.473	1,144	0.127	0.691	0.443	1,076
Regulations	<0.001*	0.387†	0.246	0.609	<0.001*	0.387	0.246	0.608	<0.001*	0.405	0.258	0.636
Policy Facility	0.004*	0.490	0.304	0.787	<0.001*	0.241†	0.145	0.401	<0.001*	0.374†	0.229	0.610

** significance < 0.05*

† most dominant indicator in effort burnout prevention

Health workers have experienced many stressors, high work volumes and lack of sleep, increasing the risk of burnout. Additionally, caring for patients with COVID-19 can cause stress, depression, insomnia, and anxiety (15). The results of this study showed that respondents experienced burnout, both personal burnout, work-related burnout, and patient-related burnout (>50%). This is in line with research by Aljhani, et al (2021) in Saudi Arabia, where health workers experienced personal burnout (67.5%), work-related burnout (68%), and patient-related burnout (58.3%) (16).

Individual prevention efforts that have been carried out by hospitals as a good category (54.4%). Individual prevention efforts are significantly related to personal burnout, work-related burnout, and patient-related burnout. The environment is the most dominant indicator of individual prevention efforts in preventing personal burnout, work-related burnout, and patient-related burnout. The stressful work environment at work can cause burnout and the social support of the work environment reduces burnout (17). Burnout is closely related to the work atmosphere. Several studies show that burnout occurs due to a bad work environment (18). Work environments that cause burnout in health workers include increased workload, poor staffing, long shifts, low schedule flexibility, time pressure, psychological demands, and job insecurity (19–22).

This research showed that group prevention efforts as a good category (50.3%). Group prevention efforts were significantly associated with work-related burnout and patient-related burnout. Forms of preventing burnout by groups can be done through supervision, communication, and reporting. Supervision is a dominant indicator in preventing personal burnout, work-related burnout, and patient-related burnout. Good supervision can prevent burnout incidents, requiring the support of supervisors, peers and/or co-workers, which is known as a protective factor against burnout (7,23). Work-related stressors, high job demands, low job control, lack of skills are risk factors that may change with positive changes in fatigue/burnout and psychological outcomes such as depression and anxiety disorders (7). Low supervision, poor supervisor/leader support, and poor leadership can trigger burnout in health workers (19,21,22). Other research shows that supervision actions have an effect on preventing burnout (p=0.001) (23).

Communication is also significantly related to preventing personal burnout, work-related burnout, and patient-related burnout (p<0.05). Good communication can prevent burnout. The existence of conflicting work relations and poor communication can cause a work atmosphere that supports burnout (20). Besides that, reporting is also significantly related to preventing personal burnout, work-related burnout, and patient-related burnout (p<0.05). The research results show that good

reporting will prevent burnout incidents. It is often difficult for an employee to report mental health issues to their supervisor, as reporting them can lead to immediate termination. The frequently reported incident is abuse/violence in the workplace (17). Reporting needs to be done to prevent burnout. Health workers who did not report physical symptoms of mental health they experienced had higher burnout scores (p value < 0.0001) compared to those who reported it (17).

Organizational prevention efforts are an important factor as a support system in working, especially during the COVID-19 pandemic. This research shows that the organization's prevention efforts are relatively good. Organizational prevention efforts are significantly related to personal burnout, work-related burnout, and patient-related burnout. Burnout is a serious problem in health care and has an impact on HCP's performance in serving patients. Burnout will lead to staff exhaustion which is associated with the possibility of healthcare-associated infections, medical errors and even patient death (24). Therefore, there is a need for prevention efforts from various sectors, one of which is organizations.

This research looks at organizational prevention efforts based on training, regulations, and facility policies. Regulations are the most dominant indicator of organizational prevention efforts in preventing personal burnout, while facility policies are the most dominant indicator in preventing work-related burnout and patient-related burnout. Regulations are important in regulating staff work programs to prevent infection, special flow of services for COVID-19 patients and requirements as well as room layout and ventilation in COVID-19 care (24). Meanwhile, the facility policy in this research identifies staff comfort during working hours, use of PPE and periodic inspection facilities as a program to prevent COVID-19 infection (5). Schaufeli and Enzmann concluded that burnout theory is divided into three elements. Those are strong motivation of employees, adverse working conditions where goals cannot be met, and dysfunctional stress coping mechanisms (25). According to Maslach and Leiter, burnout results from a mismatch between work and organization (26). So, it is necessary to develop burnout prevention efforts focus on organizations, especially regulations to prevent personal burnout, and facility policies to prevent work-related burnout and patient-related burnout.

This research attempts to narrow down preventative efforts related to personal burnout, work-related burnout, and patient-related burnout. The research weakness was the analysis used bivariate only to see the relationship between characteristic variables and prevention efforts as well as looking at dominant indicators of burnout incidence. The results of this study can be used as a reference for providing appropriate and effective burnout prevention interventions through individual, group, or organizational prevention. Clinical professionals can consider and prioritize burnout prevention individually including compliance and environment. We hope further research will be carried out using multivariate analysis so that the research results are more complete and detailed referring to burnout prevention indicators. Besides that, further research is expected to conduct further research using the mixed method to obtain more comprehensive results.

CONCLUSION

Efforts to prevent burnout by individuals, groups and organizations related to burnout or fatigue itself include personal burnout, work-related burnout and patient-related burnout. Indicators of individual prevention efforts include compliance and work environment. Indicators of group prevention efforts include supervision, communication and reporting. Indicators of organizational prevention efforts include facility regulations and policies.

Profession is related to personal burnout and work-related burnout. Marital status is related to work-related burnout and patient-related burnout. Profession is related to patient-related burnout.

It is hoped that the results of this research can be used by policy makers and implementers in hospitals to strengthen efforts to prevent burnout for PPA.

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Conflicts of Interest

The authors declare no conflict of interest

References

(1) Nickell LA, Crighton EJ, Tracy CS, Al-Enazy H, Bolaji Y, Hanjrah S, et al. Psychosocial effects of SARS on hospital staff: Survey of a large tertiary care institution. CMAJ. 2004;170(5):793–8. DOI:10.1053/cmaj.1031077

(2) Duarte I, Teixeira A, Castro L, Marina S, Ribeiro C, Jácome C, et al. Burnout among Portuguese healthcare workers during the COVID-19 pandemic. BMC Public Health. 2020 Dec 1;20(1). https://doi.org/10.1186/s12889-020-09980-z

(3) Indonesian Health Ministry. Decree No HK.01.07/MENKES/169/2020 regarding the Determination of Referral Hospitals for the Management of Certain Emerging Infectious Diseases. 2020;1–19.

(4) Papaefstathiou E, Tsounis A, Malliarou M, Sarafis P. Translation and validation of the copenhagen burnout inventory amongst greek doctors. Heal Psychol Res. 2019;7(1):15–20. doi:10.4081/hpr.2019.7678

(5) Indonesian Health Ministry. Decree No HK. 01.07/ MENKES/ 1591/ 2020. Health Minister. 2020.

(6) Leiter MP, Bakker AB, Maslach C. Burnout at work. A Psychol Perspect. 2014;

(7) Awa WL, Plaumann M, Walter U. Burnout prevention: A review of intervention programs. Patient Educ Couns. 2010;78(2):184–90. DOI: 10.1016/j.pec.2009.04.008

(8) Ahola K, Honkonen T, Virtanen M, Kivimäki M, Isometsä E, Aromaa A, et al. Interventions in relation to occupational burnout: the population-based health 2000 study. J Occup Environ Med. 2007 Sep;49(9):943–52. DOI: 10.1097/JOM.0b013e31813736e3

(9) Allwood CM, Geisler M, Buratti S. The relationship between personality, work, and personal factors to burnout among clinical psychologists: exploring gender differences in Sweden. Couns Psychol Q. 2022;35(2):324–43. DOI: 10.1080/09515070.2020.1768050

(10) Patti R. Human Services as Complex Organizations. Adm Soc Work. 2010 Oct;34(5):482–4. DOI: 10.1080/03643107.2010.518128

(11) Schaufeli WB, Taris TW. A critical review of the job demands-resources model: Implications for improving work and health. Bridg Occup Organ Public Heal A Transdiscipl Approach. 2014;43–68. DOI 10.1007/978-94-007-5640-3_4

(12) McCormack HM, MacIntyre TE, O'Shea D, Herring MP, Campbell MJ. The prevalence and cause(s) of burnout among applied psychologists: A systematic review. Front Psychol. 2018;9(OCT). DOI: 10.3389/fpsyg.2018.01897

(13) Bakker AB. A job demands–resources approach to public service motivation. Public Adm Rev. 2015;75(5):723–32. DOI: 10.1111/puar.12388

(14) Bakker AB, Demerouti E. Job demands-resources theory: Taking stock and looking forward. J Occup Health Psychol. 2017 Jul;22(3):273–85. http://dx.doi.org/10.1037/ocp0000056

(15) Sultana A, Sharma R, Hossain MM, Bhattacharya S, Purohit N. Burnout among healthcare providers during COVID-19: Challenges and evidence-based interventions. Indian J Med Ethics. 2020;V(4):1–6. DOI:10.20529/IJME.2020.73

(16) AlJhani S, AlHarbi H, AlJameli S, Hameed L, AlAql K, Alsulaimi M. Burnout and coping among healthcare providers working in Saudi Arabia during the COVID-19 pandemic. Middle East Curr Psychiatry. 2021;28(1).https://doi.org/10.1186/s43045-021-00108-6

(17) Chatani Y, Nomura K, Hiraike H, Tsuchiya A, Okinaga H. Multiple Physical Symptoms Are Useful to Identify High Risk Individuals for Burnout : A Study on Faculties and Hospital Workers in Japan.

2021; https://doi.org/10.3390/ijerph18063246
(18) Kelly LA, Weston MJ, Gee PM. A Nurse Leader's Guide to Reducing Burnout:: Strategies to Improve Well-Being. Nurse Lead. 2021;19(5):467–73. https://doi.org/10.1016/j.mnl.2021.03.012
(19) Dall'Ora C, Ball J, Reinius M, Griffiths P. Burnout in nursing: a theoretical review. Hum Resour Health. 2020;18(1):1–17. https://doi.org/10.1186/s12960-020-00469-9
(20) Nining S, Hariyati TS, Rahman LOA, Rayatin L. Psikoterapi Pemberdayaan: Berbagi Tiga Hal Baik untuk Mengatasi Burnout Perawat di Era COVID-19. J Telenursing. 2021;3(2):687–98. DOI: https://doi.org/10.31539/joting.v3i2.2985
(21) Griffiths P, Saville C, Ball J, Jones J, Pattison N, Monks T, et al. Nursing workload, nurse staffing methodologies and tools: A systematic scoping review and discussion. Int J Nurs Stud. 2020;103:103487. https://doi.org/10.1016/j.ijnurstu.2019.103487
(22) Marshall AP, Austin DE, Chamberlain D, Lee-anne SC, Cree M, Fetterplace K, et al. A critical care pandemic staffing framework in Australia. Aust Crit Care. 2021;34(2):123–31. https://doi.org/10.1016/j.aucc.2020.08.007
(23) Adhisti MI, Setyohadi JS, Adithya J. Pengaruh Tindakan Supervisi Terhadap Turnover Intention Auditor Dengan Burnout Dan Kepuasan Kerja Sebagai Variabel Mediasi. Indones J Financ Strateg Insid. 2021;1(3):160–81. DOI : 10.53363/yud.v1i3.12
(24) Roczniewska M, Bakker AB. Burnout and self-regulation failure: A diary study of self-undermining and job crafting among nurses. J Adv Nurs. 2021;77(8):3424–35. DOI: 10.1111/jan.14872
(25) Schaufeli W, Enzmann D. The burnout companion to study and practice: a critical analysis. London: Taylor & Francis; 1998.
(26) Maslach C, Leiter MP. The truth about burnout: how organizations cause personal stress and what to do about it. San Francisco: Jossey-Bass; 1997. A Willey Brand