
The Risk Factors Burnout among Nurses in General Hospital Kebumen

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Abstract

Background: Burnout is a collection of symptoms due to a usage of energy generating physically, mentally and emotionally exhausted which is affecting health care workers in hospital particularly nurse. The objective of this research is to understand the risk factors of burnout among nurses in general hospital Kebumen, Central Java Province in Indonesia. **Method:** A cross-sectional study was conducted as a research design. About 125 samples had selected with consecutive sampling as a method to collect respondents. There were five independents variables such as ages, length of work, gender, education background and marital status, yet burnout as a dependent variable. This research was analyzed by chi-square for bivariate and logistic regression technique for multivariate. **Results:** According chi-square test explained that variables age (p-value 0.052, OR 2.276 and CI 95% 0.984-5.263, education (p-value 0.511, OR 0.759 and CI 95% 0.333-1.729, light of work (p-value 0.159, OR 0.551 and CI 95% 0.239-1.270), gender status (p-value 0.987, OR 1.007 and CI 95% 0.440-2.306) and marital status (p-value 0.868, OR 0.926 and CI 95% 0.377-2.277) that concluded none of those variables had correlated to burnout among nurses in general hospital, Kebumen District, Indonesia. However, logistic regression was attained only age of respondents as a significant variable against burnout (p-value 0.029, OR 2.634, CI 95 % 1.101-6.298). **Conclusion:** Based on this research had identified that age >35 years old is the most affecting predictor against burnout among nurses in general hospital Kebumen, Central Java Province, Indonesia.

Keywords: burnout; healthcare workers; nurses

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1. Introduction

Burnout has been known as major problems among health care workers in the last decades⁽¹⁾ yet interesting to be discussed due to the impact on human health so that decrease work productivity. Burnout is an extended response to chronic emotional and interpersonal stressors on the job and is outlined by three dimensions of exhaustion, cynicism and inefficacy^{(2);(3)}. The most widely reported symptoms of burnout are exhaustion which is reflecting accumulated stress among workers, yet difficult to capture people relationship against burnout. One dimension that contributing is cynicism or depersonalization, an attempt to put distance between oneself and service by actively ignoring quality and engaging people^{(3);(4)}. Ineffective is reduced personal accomplishment which has more complex interactions with exhaustion and cynicism⁽³⁾. Those factors would be accumulated into the specific outcome, job performance and health status.

Several theories explained factors that contributing burnout as well as job demands, occupational and organizational characteristic, having linked one and each other to stimulate increased staff turnover, absenteeism, sickness, injury accident, low productivity and interpersonal conflict⁽⁵⁾. People who work in a fully demanded occupation, overcapacity workload and unsafe work environment as a trigger of job satisfaction, burnout and intention

to leave the hospital⁽⁶⁾. According to data of epidemiology, there is no specific prevalence particularly among health care professionals, yet various profession is a doctor, nurses and technical nurses more victims to burnout⁽⁷⁾. Based on three dimensions of burnout, are emotional exhaustion, depersonalization and personal achievement different significantly between profession in hospital workers⁽⁸⁾. Other factors that affecting burnout is social-demography which reflecting individual characteristic such as age, marital status, children, level of education, wages and background of education⁽⁹⁾.

Medical staff in hospital related to high risk either physical illness or psycho-social factors⁽¹⁰⁾. Mostly researches attained communicable or non-communicable diseases among health care workers, however, few explained psycho-social factors such as accumulated stress, prolonged depression and burnout^{(11);(12)}. Highly risk job demand makes medical staff working on shifting schedule every day, facing contagious items, infected patients, heavy workload in wards and organizational rule in the hospital^{(11);(12);(13)}. Those elements would be trouble for them if it is not managed comprehensively and the policymaker should take over to handle those problems. As a human being, they required protection, prevention and intervention to control the impact of overload job demand in hospital. The problems were not finished yet on it, however uncontrolled outside factors such as hospital environment, interpersonal relationship and organization rules should be managed entirely to prevent unwanted impacts on health care professionals.

According to the explanation above, the main objective this research is to search the relationship between burnout and factors that influence it. This paper will give advocacy and recommendation to policy maker in the hospital to manage, control and arrange program preventing burnout among health care workers.

2. Method

A cross-sectional study was performed as a research design. The respondents were nurses in state hospital dr. Soedirman, Kebumen, Indonesia. The sample size was counted and obtained 125 nurses as respondents hence consecutive sampling as a method to collect a sample. Several steps were conducted during this research such explained ahead. The first step is preliminary which is coordinating to respondents, approving ethical clearance for research legacy and permitting research to director of the hospital. The next step was arranging a questionnaire as a research instrument and counting sample size. The questionnaire was adapted from previous research entitled *Maslach Burnout Inventory* (MBI) consists of three dimensions; exhaustion, depersonalization and personal accomplishment which is divided into 21 likert scale questions. The instrument was validated based on the characteristic of respondents, found that Cronbach alfa for reliability test was 0.93.

All respondents in this research were selected from the hospital where they are working from at least one year, agree to be a respondent evidently by filling informed consent form and completely, filling questionnaire. We only took nurses as respondent because the proportion is many more than any other profession in hospital, conversely we did not take entirely profession due to various workload among health care workers in the hospital. There were 125 respondents who have taken from total workers with non-random sample method, consecutive sampling as a method to take respondents. Five variables have selected, an age of respondents, length of work, gender and marital status as independent variables yet burnout as dependent one. Those variables were taken from the questionnaire and nominal scale as research data. Age respondents were divided into >35 years old and ≤35 years old, length of work >5 years and ≤5 years, marital status as married and not married as well burnout as yes or not. The first analysis used univariate as a description of research variables and the second is bivariate with chi-square test when fulfilling criteria for that test. The last test is multivariate to analyze entire independents variable against dependent one to search correlation each variable.

3. Results and Discussion

3.1 Results

The research was conducted a week after ethical clearance was approved by the committee ethic Faculty of Medicine, Universitas Islam Indonesia. According to univariate analysis obtained six variables that can be concluded, mostly age of respondents 36-45

years old (58%), women (71%), married (89%), diploma as education background (55%), more than 5 years length of work (49%) and mild burnout (58%) that can be shown on Table 1.

Table 1. The result of descriptive analysis

No.	Variables	N	%
1	Age		
	a. 21-35 yo	44	35%
	b. 36-45 yo	73	58%
	c. 46-50 yo	8	6%
2	Gender status		
	a. Women	71	57%
	b. Man	54	43%
3	Marital status		
	a. Married	89	71%
	b. Not Married	36	29%
4	Education background		
	a. Diploma	69	55%
	b. Undergraduate	33	26%
	c. A profession of nurse	23	18%
5	Length of work		
	a. 1-2 years	7	6%
	b. 2-3 years	36	29%
	c. 3-5 years	21	17%
	d. >5 years	61	49%
6	Burnout		
	a. No Burnout	30	24%
	b. Mild Burnout	72	58%
	c. Moderate Burnout	17	14%
	b. Severe Burnout	6	5%
	Total	125	100%

The chi-square analysis was continued according to previously result which is found that all of the cell have expected count fewer than 5, it is mean that chi-square test more appropriate to analyze than fisher test. According chi-square test explained that variables age (p-value 0.052, OR 2.276 and CI 95% 0.984-5.263, education (p-value 0.511, OR 0.759 and CI 95% 0.333-1.729, length of work (p-value 0.159, OR 0.551 and CI 95% 0.239-1.270), gender status (p-value 0.987, OR 1.007 and CI 95% 0.440-2.306) and marital status (p-value 0.868, OR 0.926 and CI 95% 0.377-2.277) that concluded none of those variables had correlated to burnout among nurses in general hospital, Kebumen District, Indonesia. The bivariate analysis can be shown in Table 2 below.

Table 2. The result of chi-square analysis

Variables Id	Category	Burnout		P-value	OR	CI 95%
		(+)	(-)			
Age	≤35 yo	29	15	0.052	2.276	0.984-5.263
	>35 yo	66	15			
Education	Diploma	54	15	0.511	0.759	0.333-1.729
	Non Diploma	41	15			
Length of work	<5 years	52	12	0.159	0.551	0.239-1.270
	≥5 years	43	18			
Gender	male	41	13	0.987	1.007	0.440-2.306
	female	54	17			
Marital status	Married	68	21	0.868	0.926	0.377-2.277
	Not married	27	9			

However, the analysis still continues to logistic regression. Logistic regression obtained that only age respondents which were correlated to burnout among nurses in General

Hospital Kebumen (p-value <0.005), adjusted odds ratio 2.634 describes age more 35 years old was associated with burnout than fewer 35 years old such explained on Table 3 below.

Table 3. Logistic Regression Analysis

Variables Id	Category	P-Value	aOR	CI 95%
Age	>35 years old	0.029	2.634	1.101-6.298
Length of work	>5 years old	0.084	0.463	0.193-1.108

3.2 Discussion

Burnout is the main psychological problems among health care workers in the Hospital. Several an etiologies had identified correlated with burnout, social-demography, a rule of organization and work environment. In this research attained five independent variables, an age of respondents, a background of education, gender status, length of work and marital status that will be explained below discussion. Variable age respondents had correlated in burnout. Nurses more than 35 years old have significantly associated against burnout roughly 2.276 than fewer 35 years old. In a recent study, younger health care workers are more prone to get burnout than older ones due to the older workers are more capable to handle occupational stress condition in hospital and more adaptive to burnout⁽¹⁴⁾. Particularly emotional exhaustion, as a component of burnout, is highly prevalent as explained by earlier research indicated that it is associated with burnout and can influence mental health, well-being personnel, stress condition leading to self-esteem, depression and so on ⁽¹⁴⁾⁽¹⁵⁾. Conversely, with our finding that age more than 35 years old are more vulnerable to burnout due to more responsible with a task, handle junior staff in ward and also responsible to manage patients in the ward.

Variable level of education obtained that both analysis, chi-square and logistic regression were not associated against burnout. According to earlier research explained grade level of education is correlated to burnout while a lower grade of education is linked with emotional exhaustion, depersonalization and personal accomplishment than higher ones⁽¹⁶⁾. This finding is totally different from ours that none of the grade education associated with burnout, because of education background more dominant by diploma than undergraduate one. The background of education is important to manage patients, working in more stressful condition and infectious environment such hospital, however requiring transformation pastime level into bachelor or nurse the profession is pivotal to ensure patient safety that only taught in profession than diploma⁽¹⁷⁾. Variable length of work attained that analysis, chi-square and logistic regression were not associated against burnout. According to earlier research explained the duration of works in hospital is related to burnout, moreover hours of work more than 40 hours is significant to burnout⁽¹⁸⁾. However, this research result is different with ours that length of work is not significant as predictor of burnout. In spite of nurses who work in hospital more than 5 years are more dominant, it is not as predictor to burnout. It can be analyzed due to inaccurate data while filling the questionnaire by respondents or sample size is not sufficient to cover this research. Literally, health care professional who works in long time duration is vulnerable to burnout than short time ones, the longer nurses work in a hospital the more prone to get burnout⁽¹⁹⁾.

Variable gender status found that analysis, chi-square and logistic regression were not associated against burnout. According to earlier research noticed that female gender is associated with depersonalization, accomplishment and emotional exhaustion⁽¹⁹⁾. Mostly female have double occupation as a housewife at home and nurses in the hospital⁽¹⁹⁾. As housewife, they are carrying children, cleaning house, cooking for family and the other daily activities. Furthermore, female nurse in hospital should be conducting main job for carrying patients inward⁽¹⁹⁾. Yet in our research, almost female workers are single and young so that they do not have excessive workload either in home or hospital.

Variable marital status obtained that analysis, chi-square and logistic regression were not associated against burnout. According to earlier research indicated that marital status that coded by single, married, divorced and widowed are not associated with burnout^{(20) (21)}. Similar to this research that marital status is not correlated to burnout. According to descriptive data, about 71% of respondents are married. People who married have social

support from spouse especially personnel accomplishment aspect⁽²⁰⁾ so that reduce stress among nurses. One of stress management intervention is communication whereas it can reduce tension and psychological problems⁽²²⁾. However, the limitation of this research can't be avoided. A cross-sectional design measures risk factors and outcome burnout at the same time so that it is difficult to derive causal relationship from this method. Yet controlling biases are more difficult in this research. Stress level is more prone among health care workers due to overloaded job demands, unfortunately, this research is not analyzed stress status among nurses which is having a similar characteristic with burnout.

4. Conclusion

In conclusion, burnout among nurse is correlated with age, which is more than 35 years old health care workers affecting this condition. This finding can give input and suggest either policymakers in hospital or government to control, manage and handle burnout particularly nurse more than 35 years old with appropriate program during work days. That program such as minimized workload, distributed authority and relaxed programs with outdoor activity.

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