



Prevalence of burnout syndrome among nurses in general hospitals in provincial East Java: Cross-sectional study[☆]



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Abstract

Introduction: Burnout is a psychological response that is emotional and related to chronic stress experienced by workers in service organizations who interact directly with service users.

Objective: To identify the prevalence of burnout syndrome among nurses in general hospitals and establish associations with socio-demographic factors.

Method: The research design used was descriptive exploratory with a cross-sectional approach using a sample of 485 nurses in medical and surgical units in three general hospitals in the East Java province. Data was collected in 2018 using a self-reported questionnaire from the Maslach Burnout Inventory-Human Service Survey (MBI-HSS) that was applied to identify burnout syndrome and a socio-demographic questionnaire was used to evaluate respondents' demographics.

Results: A high level of burnout was recognized in 34.8% of the respondents in the area of emotional exhaustion (EE), 24.3% in the area of depersonalization (DP) and 24.5% in the area of reduced personal accomplishment (RPA). Correlation analysis showed that marital status and work experience were related to EE ($p < 0.05$); employment status and age were linked to DP ($p < 0.05$); and marital status was related to RPA ($p < 0.05$).

Conclusion: The prevalence of nurses who experience burnout syndromes is high. Therefore, the hospital management needs to identify sociodemographic characteristics which will improve the working environment, recruitment and retention systems and the provision of effective health services.

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Introduction

Burnout syndrome is a global phenomenon that has prompted research in various countries, especially in the health care sector. Burnout is defined as a sustained psychological response to chronic work stress, characterized by experiences of being emotionally exhausted (emotional exhaustion), negative attitudes and feelings toward the recipients of the service (depersonalization), and feelings of low accomplishment or professional failure (lack of personal accomplishment).¹ Burnout in nurses was found to be higher in hospitals in eight countries.² Emotional exhaustion was experienced by as many as 29.80% nurses; depersonalization experienced by 7.3% of nurses; 9.3% of nurses experienced low self-esteem.³ The prevalence of burnout in nurses in several countries has increased in recent years.⁴ The condition of burnout will have an impact on the health and psychological status of the nurses who experience it.

The somatic symptoms presented in 21% of nurses typified by emotional exhaustion and low personal accomplishment; anxiety/insomnia is affected 14% who displayed emotional exhaustion and depersonalization. Emotional exhaustion and depersonalization were associated with anxiety/insomnia in 31% of nurses as well as social dysfunction in 14% of nurses. Emotional exhaustion was associated with severe depressive symptoms presenting in 4% of nurses.⁵ Several other studies also found that the occurrence of burnout in nurses can cause mental fatigue, worry, decreased motivation, commitment and performance, an increase in absentee level and resignation; and decreased job satisfaction and productivity.⁶⁻⁸ The condition of burnout in nurses will have a negative impact on the quality of nursing care provided to patients and families, making relationships between colleagues become destabilized and promote negative feelings toward patients, the job and the organization. Hence, burnout will have the effect of decreasing the quality of services, leading to adverse patient outcomes and medical errors.⁹⁻¹¹

Based on the previous explanation, it is, therefore, necessary to conduct a study to determine the prevalence of the symptoms of burnout among nurses in hospitals in an effort to anticipate the negative impact of burnout on hospital nursing services.

Method

This study used a descriptive exploration design with a cross-sectional approach. The study sample comprised nurses who worked in the medical-surgical rooms at three government-owned public hospitals in East Java Province. These were the Dr. Saiful Anwar General Hospital, where 224 nurses participated, the Dr. Soetomo Hospital where 156 nurses participated, and the Ngudi Waluyo General Hospital where 105 nurses took part. The sampling technique was purposive sampling with criteria including nurses who had a minimum education in nursing diploma, at least one year of work experience and were willing to become respondents. Data collection was carried out using two research instruments: the Maslach Burnout Inventory-Human Service Survey (MBI-HSS)¹² and a sociodemographic questionnaire to gather information on age, gender, marital status, work

experience and employment status of the respondents. Approval to use the MBI-HSS as the licensed instrument was granted before collecting data. Respondents were asked to indicate their agreement with a series of questions on a seven-point rating scale ranging from 0 = 'never' to 6 = 'every day'. The analysis has done by divided variable in to three dimensions namely emotional exhaustion, depersonalization and personal accomplishment. Categorization was done based on cut-off point according to the references (high, intermediate and low level).^{1,13} The results of the low-level burnout subscales are categorized as "No", while the medium and high-level burnout subscales are categorized as "Yes". The result of the reliability test with Cronbach alpha was 0.845 (EE), 0.732 (DP), and 0.858 (RPA). Frequency distribution was used to analyze descriptive data and Chi-square statistical tests to determine the correlation between demographic characteristics with nurse burnout. This study obtained ethical approval from the Faculty of Nursing, University of Indonesia (No. 0553/UN2.F12.D/HKP.02.04/2016), The ethics committee of the Dr. Saiful Anwar Malang General Hospital (No. 400/20/K.3/302/2017) and from the Dr. Soetomo Surabaya General Hospital (No. 279/Panke.KKE/IV/2017). All respondents who participated in this study had previously provided informed consent.

Results

Sociodemographic characteristics

The majority of respondents in this study were women (61.2%), aged between 21 and 30 years (47%), with educational attainment of Nursing Diploma (66%). Employment status are Non-Government Employees (NGE) 55.3%, marital status as married (82.5%), and work experience between 1-5 years (40.8%). This data presented in [Table 1](#).

The burnout syndrome in nurses

Nurses who experienced burnout displayed symptoms of emotional exhaustion numbered 228 (47%), symptoms of depersonalization were evident in 233 (48%), and symptoms of decreased achievement were seen in 237 (48.8%). The description of the prevalence of burnout syndrome that occurs in nurses is shown in [Table 2](#).

Nurse burnout relationships and sociodemographic factors

The gender characteristics of respondents were significantly associated with emotional exhaustion symptoms ($p=0.044$), marital status was significantly associated with decreased achievement ($p=0.040$), employment status was related to depersonalization ($p=0.000$), the age of respondents was related to depersonalization ($p=0.020$), and work experience was significantly related to emotional exhaustion ($p=0.008$). This data is presented in [Table 3](#).

Table 1 Sociodemographic characteristics of nurses in three general hospitals in East Java Province ($n=485$).

Variable	<i>n</i>	%
<i>Gender</i>		
Male	188	38.8
Female	297	61.2
<i>Age (years)</i>		
21–30	228	47
31–40	142	29.3
41–50	80	16.5
>50	35	7.2
<i>Education</i>		
Diploma	322	66.4
Bachelor	163	33.6
<i>Employment status</i>		
Government Employees (GE)	217	44.7
Non-Government Employees (NGE)	268	55.3
<i>Marital status</i>		
Single	78	16.1
Married	400	82.5
Widow	7	1.4
<i>Work experiences (year)</i>		
1–5	198	40.8
6–10	105	21.6
11–15	38	7.8
16–20	29	6
>20	34	7

Table 2 The prevalence of symptoms of burnout among nurses in three general hospitals in East Java Province ($n=485$).

Dimension burnout syndrome	<i>n</i>	%
<i>Emotional exhaustion (EE)</i>		
Low (≤ 18)	257	53
Moderate (19–26)	59	12.2
High (≥ 27)	169	34.8
<i>Burnout</i>		
Yes	228	47
No	257	53
<i>Depersonalization (DP)</i>		
Low (≤ 5)	252	52
Moderate (6–9)	115	23.7
High (≥ 10)	118	24.3
<i>Burnout</i>		
Yes	233	48
No	252	52
<i>Reduced personal accomplishment (RPA)</i>		
Low (≥ 40)	248	51.2
Moderate (34–39)	118	24.3
High (≤ 33)	119	24.5
<i>Burnout</i>		
Yes	237	48.8
No	248	51.2

Discussion

Burnout is known to be partially experienced by nurses in the hospitals that were used in this study. A high level of emotional fatigue was experienced by 34.8%, a high level of depersonalization by 24.3%, and reduced personal accomplishment by 24.5% of the sample group. The results in this study indicate that there is a high level of burnout syndrome in nurses in the hospitals which participated. This finding is in agreement with the results of research conducted on nurses in several other countries.^{2–4} The phenomenon of burnout in nurses occurs not only in European countries but also in Indonesia, and especially in East Java Province.

There is a significant relationship between gender aspects and emotional fatigue in this study with more women than men. These results are consistent with research conducted in Sweden which reported that women have higher burnout rates than men.¹⁴ Other published research has shown that women who work in banks in Turkey were known to have higher scores on the emotional exhaustion dimension scale.¹⁵ This condition can be caused because overall, women have greater combined responsibilities at work and home compared to men.

There was a significant relationship between work experience and the incidence of emotional fatigue in this study. The incidence of emotional fatigue in nurses is known to decrease along with the increase in work experience in this study. These results are consistent with several studies which suggest that there is a relationship between work experience and emotional fatigue.^{16–18} Nurses who have less experience have a greater susceptibility to burnout. This phenomenon can be because nurses who are less experienced have limited autonomy in their work. This, in turn, is associated with the occurrence of emotional fatigue and decreased interest in work-related tasks and activities.¹⁹

There is a relationship between age and depersonalization of nurses, and the incidence is more prevalent among younger nurses (aged 20–30 years) at the general hospitals which participated in this study. This result is in agreement with Maslach's report that the prevalence of burnout is more common in the younger age groups.²⁰ This may be explained by the fact that at this age, many nurses are just gaining their first experience in the profession. These results are consistent with the findings of another study that reported a decrease in burnout levels with increasing age.¹⁴ Some researchers found that there was a significant relationship between age and burnout²¹ and also a significant relationship between age and depersonalization.^{22,23} Younger workers tend to exhibit a higher depersonalization experience compared with older colleagues.²⁴

There is also a relationship between employment status and the incidence of depersonalization of nurses at the hospitals in this study. The incidence of the number of nurses with non-civil servant employment status experienced higher levels of depersonalization compared to civil servants. Feelings of workplace injustice and job insecurity can be factors in the employment status association with depersonalization of nurses.^{19,25}

This study also found a relationship between marital status and a decrease in achievement in nurses working at the hospitals in this study. This result concurs with Lahana's

Table 3 The relationship between nurse burnout and sociodemographic characteristics in three general hospitals in East Java Province ($n = 485$).

Variable	<i>N</i>	EE (<i>n</i> = 228)	%	Sig.	DP (<i>n</i> = 232)	%	Sig.	RPA (<i>n</i> = 237)	%	Sig.
<i>Gender</i>										
Male	188	89	47.3	0.044	98	52.1	0.126	85	45.2	0.414
Female	297	139	46.8		135	45.4		152	51.1	
<i>Marital status</i>										
Single	85	40	47	0.866	40	47	0.819	38	44.7	0.040
Married	400	188	47		193	48.2		189	47.2	
<i>Employment status</i>										
GE	217	96	44.2	0.467	110	50.6	0.000	103	47.4	0.666
NGE	268	132	49.2		123	45.8		134	50	
<i>Age (year)</i>										
Age 20–30	228	120	52.6	0.114	122	53.5	0.020	126	55.2	0.99
Age 31–40	142	63	44.3		55	38.7		62	43.6	
Age >40	115	45	39.1		55	48.2		49	42.1	
<i>Experience (year)</i>										
1–5 year	208	109	52.4	0.008	104	50.7	0.073	112	54.6	0.10
6–10 year	114	57	50		54	47.7		57	50.4	
>10 year	163	62	38		72	44.1		66	40.4	
<i>Education</i>										
Diploma	322	158	49	0.352	150	46.5	0.356	162	50.3	0.073
Bachelor	163	70	42.9		83	50.9		75	46	

research which reported that marital status is related to achievement.¹⁶ Unmarried individuals are at greater risk of burnout.²⁶ The results of other studies also found that there were differences between nurses who were married to those who were not married with regard to professional achievement.⁴

This study considers socio demographic factors that influence the incidence of burnout symptoms. Although the results of this study found that there is a correlation, this study has several limitations, one of the limitations that might influence the results of our study is the study period. This study uses a cross-sectional design and does not examine changes in the phenomenon so that for other researchers it is necessary to increase the number of nurses and hospitals that are not limited to the government and concerned about the analysis of personality factors, attitudes toward work and variables related to working conditions and workload excessively. Empowerment of nurses for coping that is effective in managing the source of stressors and improving the work environment and capacity of nurses is needed to reduce the incidence of nurse burnout by taking into account the sociodemographic factors.

This study has identified that prevalence of symptoms of burnout, such as emotional fatigue, depersonalization and decreased achievement is high in nurses. There is a relationship between marital status and work experience, and emotional fatigue. There is a relationship between employment status and age, and depersonalization. There is a relationship between marital status and a decrease in personal achievement. These findings can guide hospital

management efforts toward the prevention and reduction of burnout symptoms.

Conflict of interests

The authors declare no conflict of interest.

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