

Comparative Study of Stress and Burnout among Nurses and Caregivers during End-of-Life Care

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Abstract

The aim of this study was to characterize burnout syndrome in nurses and caregivers providing end-of-life care and to identify the factors associated with this syndrome. This study was conducted in two hospitals, a geriatric welfare home, and a geriatric health care facility. A four-part questionnaire was used to collect data relating participant socio-demographic stress factors, and support strategies for coping with stress.

Nurses score significantly higher for skill, control of work, and job satisfaction than caregivers ($p < .01$). Support from supervisors and colleagues was strongly associated with less stress and burnout during end-of-life care. Employers and supervisors play a key role in providing the quality of end-of-life care for nurses and caregivers in order to support their staff development and to help reduce their vulnerability to and effect of stress at the workplace.

Key words: nurses, caregivers, stress and burnout, end-of-life care

1. Introduction

End-of-life care consists of the active and global care provided to people in the end stages of life who are suffering from severe, incurable, and progressive diseases. End of life care aims to support patients in a way that allows dignity, during their death and also to support their family post death grief¹⁾.

This type of care requires interdisciplinary teamwork, due to a wide range of interventions, technical scientific expertise, interpersonal skill, and ethical skills that are required. As such end-of-life care professionals face multiple demanding challenges²⁾. To create an effective end of life care interaction between disciplines, effective leadership, sharing of information and knowledge role clarification are need be promoted.

Burnout is the feeling of physical, emotional, and mental exhaustion that is caused by long-term involvement in situations that are emotionally damaging³⁾. Professionals caring for people with long-term and serious illnesses are frequently exposed to distressing emotional situations and profound suffering, which can lead to burnout. Maslach et al.⁴⁾ described burnout as the point at which important, meaningful, and challenging work becomes unpleasant, unfulfilling, and meaningless. Indeed, at this point, energy turns into exhaustion, involvement leads to cynicism, and efficacy is replaced by ineffectiveness.

Nurses and caregivers has been consistency shown to be a profession characterized by signs of high burnout, Several studies have suggested that health care staff engaged in end-of-life care are more likely to burnout because they may experience multiple stressors including a sense of failure or frustration when a patient's illness progresses^{5,6)}, feelings of powerlessness against illness and its associated losses, role conflicts and ambiguity⁷⁾, and the failure to enable a good death⁸⁾.

Some research has demonstrated the prevalence of burnout with nurses and caregivers involved in end-of-life care, there is a lack of research investigating the factors that contribute to burnout. Therefore, the aim of this study was to identify the factors associated with burnout syndrome in nurses and caregivers during end-of -life care.

2. Methods

2.1 Participants

Participants were recruited from four different facilities: two hospitals (104 nurses), one geriatric welfare home (53 caregivers), and one geriatric healthcare facility (8 nurses and 60 caregivers). A total of 225 nurses and caregivers

were asked to complete a four-part questionnaire, of which 86 nurses and 101 caregivers responded within one month resulting in a respond rate of 187 (83.1%). All respondents were age between 21 and 69 years (mean=45.0, SD=8.2).

2.2 Measurements Tools

A four-part questionnaire comprising a Socio Demographic Questionnaire (SDQ) (one part), and Job Content Questionnaire (JCQ) (three part), was used.

The SDQ included questions pertaining to age, gender, and background of education, work experience, population group, end-of-life care experiences, and duration of involvement with end-of-life care.

The JCQ contained 57 items relating to the severity of stress and burnout in the workplace. The first 17 items related to different types of stress factor including workload burden, psychological exhaustion, physical exhaustion, items related to different types of stress factor including workload burden, psychological exhaustion, physical exhaustion, control of work, skill related stress, interpersonal relationship, environmental related stress, aptitude related stress, and job satisfactions. In the second part of the questionnaire, participants responded 29 statements relating to psychological and physical stress reactions, and the third part, participants responded 11 statements relating to level of support from supervisors, colleagues, family members and friends.

2.3 Design and Analysis

Using a cross-sectional design data were collected relating to work-related stress, burnout, and the general health of nurses and caregivers. Descriptive statistical analysis was conducted on collected data to determine variable frequencies, and multiple linear regressions was used to infer any significant associations between the variables. The stressors contributing to work related stress were enter into the regression models with burnout and general health as dependent variables. Burnout was also entered as an independent variable into a second model with general health as a dependent variable. All analysis were conducted using IBM SPSS Version 20.

2.4 Ethic

This study was conducted in April 2016. All participants gave informed consent before participating in the study and the Ethics Committee of Prefectural University of Hiroshima Research Council (No.15MH072) and all of the participating medical facilities approved the study protocol. Participation in the study was voluntary. Participants were requested to place their completed questionnaires and

consent forms into a sealed envelope and subsequently deposit them into a secure box situated within the hospital or home. The secure boxes were accessible only to the researcher.

3. Results

3.1 Characteristic of participants

Respondents level of work experience ranged from 0.5-44 years (mean =16.0, SD=8.1). Nurses had more years experience (mean=16.0, SD= 7.9) than caregivers (mean=12.0 SD=7.6) ($p < .01$), and were more involved in end-of-life care (mean=3.3, SD= 0.9) compared with caregivers (mean=1.2, SD=0.6) ($p < .01$). The involvements of end-of-life care are higher in nurses group than caregivers. (Table 1)

3.2 Work-related end-of-life care

These results indicated that implementation of end-of-life care is common practice for both nurses and caregivers in Japan, both of nurses and caregivers is higher in so-so with end-of-life care implementation of nurses is 32.4 and 36.5 in caregivers: with an awareness of the necessity of nurses is higher in moderately so 45.7 in the other hand caregivers is higher in so-so 46.7, and burdens of end-of-life care is common among both groups is higher in so-so, nurses is 48.4 and caregivers is 36.7. (Table 2)

3.3 Comparison factor of stress and burnout among nurses and caregivers

Characteristics of stress and burnout were moderately higher among caregivers than among nurses. Regarding stressors, levels of mental demand were lower among nurse

Table 1. Characteristic of participants (Nurses and Caregivers)

	Category	Total Participants N=187	Nurses N=86	Caregivers N=101
Age	Mean age	45± 8.2	39±7.9	36±8.6
	Range age	21-69	22-64	21-69
Gender	Male	36	21	15
	Female	151	65	86
Work Experiences	Mean years	16 ± 8.1	16 ± 7.9	12±7.6
Involvements with end of life care in past year	Mean year involvements	5.4 ±0.7	3.3 ± 0.9	1.2±0.6

Table 2. End of Life Care Condition in Workplace (Implementation, Necessity, and Burden)

Items	Contents	Nurses (%)	Caregivers (%)
Implementations	Not at all	4.3	2.4
	Somewhat	27.1	20.3
	So-so	34.2	39.7
	Moderately so	32.4	36.5
	Very much so	2.0	1.1
	Total	100	100
Necessity	Not at all	1.3	2.4
	Somewhat	2.5	4.4
	So-so	31.6	46.7
	Moderately so	45.7	28.4
	Very much so	18.9	18.1
	total	100	100
Burden	Not at all	1.6	1.7
	Somewhat	24.5	18.2
	So-so	48.4	36.7
	Moderately so	18.4	34.5
	Very much so	17.1	8.9
	total	100	100

than among caregivers, and associated factor of stress and burnout of control of work, skill, and job satisfaction is significantly higher in nurses compared to caregivers. In other hand caregivers is significantly higher in psychological exhaustion, anxiety, frustration ($p < .05$), irritated and physical exhaustion ($p < .01$) than nurses. (Table 3)

3.4 Work place related stress and burnout during end of life care

Summarized the mean value of this study we found that according to work place, there is no significantly different of workload burden. In other hand psychological exhausted is significantly higher in hospital ($p < .05$) than geriatric welfare home and geriatric healthcare facility. In physical exhausted in geriatric welfare home is significantly higher ($p < .01$) than geriatric healthcare facility and hospitals. Job

satisfaction is significantly higher in hospital ($p < .01$) than geriatric healthcare facility and geriatric welfare home. (Table 4)

3.5 Inter-personal relationship related stress and burnout

In this results the inter-personal relationship supports from supervisors have a significantly positive correlation with workload burden (0.379*) and job satisfaction (0.473*), in other hand significantly negative correlation with psychological exhausted was found (-0.547**). In addition support from colleagues had a substantial impact on workload burden (-0.453**), physical exhaustion (-0.359**), and job satisfaction (0.279*). However significantly correlation with support from family and friend was not found. (Table 5)

Table 3. Comparison of associated stress factor and burnout among nurses and caregivers

Stress factor	Nurses N=86				Caregivers N=101				P value
	mean	max	min	S.D	Mean	max	min	S.D	
Workload burden	5.7	10	4	±2.1	5.6	12	5	±1.3	-
Psychological exhaustion	4.2	7	4	±0.9	5.8	9	5	±1.2	*
Irritated	4.5	5	3	±1.0	7.2	9	6	±0.9	**
Anxiety	6.5	9	7	±0.8	8.6	11	8	±0.8	*
Frustration	11.6	17	10	±0.8	15.4	22	13	±0.7	*
Physical exhaustion	24.2	30	19	±1.0	27.4	29	23	±0.8	**
Control of work	9.0	11	6	±0.6	6.2	9	4	±1.0	**
Skill	8.2	10	7	±0.9	6.2	8	5	±0.5	**
Inter-personal relationships	8.8	11	6	±1.3	7.1	8	5	±1.2	-
Environment	3.1	4	2	±0.5	3.9	5	1	±0.3	-
Aptitude	2.2	3	1	±0.4	2.9	4	1	±0.6	-
Job satisfactions	4.1	5	2	±0.9	1.6	4	1	±0.4	**

* Statistically significant variables ($p < .05$),

** Statistically significant variables ($p < .01$)

Table 4. Work Place Related Stress and Burnout during End of Life Care

Items	Hospitals	Geriatric Welfare Home	Geriatric Healthcare Facility	P Value
	Workload burden	4.92	5.67	
Psychological exhausted	6.21	4.47	5.41	*
Physical exhausted	22.48	28.72	26.64	**
Job satisfaction	3.89	1.26	2.78	**

* Statistically significant variables ($p < .05$),

** Statistically significant variables ($p < .01$)

Table 5. Inter-personal relationships related with stress and burnout: Multiple linear regression analysis

Items	Workload burden	Psychological exhausted	Physical exhausted	Job satisfaction
Support from supervisor	0.379*	-0.547**	-0.069	0.473*
Support from colleagues	-0.452**	-0.359**	-0.157	0.279*
Support from family and friend	-0.079	-0.159	0.065	0.150

* Statistically significant variables ($p < .05$)** Statistically significant variables ($p < .01$)

4. Discussion

Several interesting association such as between job satisfaction and the resignation were reported^{9,10)} and there also a strong association between job satisfaction and stress and burnout¹¹⁾. The strong inverse association between job continuation, stress and burnout in this study may suggest the association factor with stress and burnout among nurses and caregivers.

This study examined stress and burnout in nurses and caregivers during end-of-life care and identify the factors associated with this syndrome. Results of the study are summarized as follows; first, both implementations of end-of-life care and awareness of the necessity, and burden of end-of life care are common in both nurses and caregivers. Second, age and times of involvements have a significant negative correlation with psychological exhausted among nurses were significantly lower than among caregivers. Associated factor of stress and burnout of control of work, skill, and job satisfaction is significantly higher in nurses compared to caregivers. In other hand caregivers is significantly higher in psychological exhaustion, anxiety, frustration, irritated and physical exhaustion than nurses. Third, support from supervisors, colleagues, during end-of-life care was strongly negatively associated with workload burden and psychological exhaustion.

The previous study was examining of stress and burnout among health care staff in Japan, found that psychological exhaustion of nurses is higher than caregiver group. In addition, the caregiver group had low work control than the nurses group¹²⁾. In other hand the result of this study found psychological exhaustion is greater in caregivers group, and lower of work control. This findings is supported the study by Louis et al.¹³⁾ the results suggest end-of-life care physicians is a significantly higher in psychological exhaustion compared to other ward physicians. Several studies have suggested that physicians involved in end-of-life care are more likely to burnout due to experiencing multiple stressors such as a sense of failure

or frustration when a patient's illness progresses, feelings of powerlessness against illness and its associated effects, role conflicts and ambiguity, and the failure to enable a good death¹⁴⁾.

Consistent with the findings of several studies, our study showed that nurses and caregivers the work burden and psychological exhaustion is lower in who had a support from supervisor and colleague's¹⁵⁾. In this study, inter-personal relationship among supervisor, colleague's, family member and friend as well as inadequate equipment had a strong correlation with stress and burnout factor such as psychological exhaustion, work burden among nurses and caregivers. Support from supervisors and colleagues had an important role to in reducing workload burden and psychological exhausted. In addition, job satisfactions and communication were also found to be associated. The findings of this study revealed that inter-personal factors in the workplace also play a role in influencing job satisfaction among nurses and caregivers during end-of-life care. Stress prevention strategies are utilized at both and organization level¹⁶⁾.

In further study, stress management programs involving education and training are a person level strategy that provides support for nurses and caregivers in dealing with stress related outcomes. These should involve end-of-life care from nurses and caregivers as well as management to improve a teamwork and inter-personal relationship in order to ensure a collective commitment towards improving nurses, caregivers and patient related outcomes. The current study provides some empirical evidence confirming the relationship between work-related stress, burnout, job satisfaction, and general health Japanese nurses and caregivers during end-of-life care.

5. Conclusions

In conclusion, workplace issues, and time of involvement were factors implicated in the stress experienced by such nurses and caregivers. More research

is needed to fully understand how these factors operate in end-of-life care settings. Importantly, employers and supervisors have a key role in providing education and training for end-of-life care nurses and caregivers to support their development and to help reduce their vulnerability to, and the impact of stress in the workplace.

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終末期ケアにおける看護職と介護職のストレスと 燃え尽き症候の比較研究

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抄 録

本研究の目的は、終末期ケアを提供している看護職と介護職の燃え尽き症候群の特徴を見出して、その症候群に影響する要因を探索することである。今回の研究では2つの病院、1つの特別養護老人ホーム、1つの介護老人保健施設におけるサービス提供者を対象とした。4要因を構成したアンケートを用いて、その対象者のストレスの社会的な構成要因を集積して、ストレスに関連する訓練の信頼性を評価した。

看護職は、介護職に比較して終末期ケアにおける技術、仕事の管理、仕事の満足度は有意差 ($p<0.01$) に高かった。終末期ケアにおける上司や職場の支援に伴って、ストレスと燃え尽き症候はととも軽減していた。管理者や上司は、終末期ケアにおける看護職と介護職に対する教育と研修に重要な役割を担っている。それにより職場内の職員の資質が向上し、職場における脆弱性ならびに職場のストレスの影響を軽減する事が示唆された。

キーワード：看護職，介護職，ストレス，燃え尽き症候群，終末期ケア