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Research Article

Nurse Burnout in Taiwan

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Abstract:

Background: Burnout in the nursing profession was a global issue and it affected individual, organizational, and patient outcomes. However, cultural differences could affect the perception to burnout and the information about nurses' burnout in Taiwan was still insufficient.

Purpose: The purpose of this study was to investigate the prevalence rate of burnout among Taiwanese nurses.

Methods: This was cross-sectional study. The three types of eligible hospitals in Taiwan were selected using proportional stratified random sampling within a geographic area was used to decide the hospital lists after excluded the total hospital beds under 100 and without surgical or medical ward. A total of 1896 nurses participated the study. The demographic variables and modified Maslach Burnout Inventory- Human Service Survey was sued to collect the data about nurses' burnout. The prevalence and characteristics were explored using descriptive statistics, Chi-square, ANOVA methods.

Results: Eighty percent of the nurses reported more than moderate emotional exhaustion, 66% reported more than moderate depersonalization, 75% reported more than moderately reduced personal accomplishment, and around 79% of nurses reported above moderate burnout.

Conclusions: The level of burnout for nurses in Taiwan is high. Effective strategies were need to provide to decrease the nurse burnout.

Keywords: Nurse burnout, MBI-HSS, Prevalence

Introduction

Burnout is a global problem for healthcare professionals, especially for nurses [1,2]. Research indicates that burnout affects both physical and psychological well-being [3], organizational perfomances [4,5,6], and patient outcomes [5]. According to Maslach (1982), Burnout, "to burn oneself out", describe people experiencing a state similar to a battery that has been drained. Emotional exhaustion refers to people who overextend themselves and feel emotionally overwhelmed; Depersonalization refers to professional staff considering clients as objects and do not engage; Reduced personal accomplishment refers to people feel themselves are failures and inadequate in various work-related events [7]. Duffy et al. (2009) thought depersonalization as a mechanism to enable a person to cope with emotional exhaustion. If people's coping fails, the individual will work ineffectively, personal accomplishment will decrease, and emotional exhaustion follows [8]. Maslach et al. (2001) indicated that exhaustion is the major component of burnout.

When nurses experienced the burnout, they will have the intention to leave and result in the nursing shortage problems [9,10]. Nearly 40% nurses did not work in nursing professional field and 89% hospital administrators reported that recruiting nurses was difficult and it was worse than other countries [11]. Maslach et al. (2001) indicated that levels of burnout were different in various countries. Schaufeli & Janczur (1994) said that staffs with similar characteristics in Europe undergo lower rates of exhaustion and depersonalization than do staffs in North America, and they suggested that different cultural values were a possible explanation for

the different rates. They also indicated that in the other countries studied by [12], over 20% of the 25,000 staff members surveyed in North America and 28% of the non-Americans have burnout syndrome. However, the inference may be a limited case of non-random and unrepresentative sampling. Researchers find 34% in US [13], 30-44% in Europe [14,15], 36% in Japan [16], and 45% in China [11]. These results indicate the nurses' burnout is critical and frequent. In Taiwan, the information about nurse burnout was still insufficient.

The purpose of this study was to investigate the prevalence rate of burnout among Taiwanese nurses.

Methods

This was a cross-sectional design. According to the Taiwan Joint Commission on Hospital Accreditation, there are 483 hospitals (19 medical centers, 77 regional hospitals, and 387 district hospitals) in Eastern, Western, Northern, Southern, and Central Taiwan. The exclusion criteria were: (1) total hospital beds under 100; (2) no surgical or medical units. Proportional stratified random sampling within a geographic area was used to decide the hospital lists, and 35 hospitals (4 medical centers, 9 regional hospitals, and 22 district hospitals) agreed to participate in the survey. Staff nurses (n = 1,896) from 117 surgical and medical units of the 35 hospitals were contacted and 1,846 (97%) completed the MBI-HSS modified by [2].

Ethical considerations of the study

The present study was approved by the National Cheng Kung University Institutional Review Board before we began to retrieve data. All hospital and study participant identifiers were stripped from the data.

Data collection

The demographic data were collected and the modified MBI-HSS in Taiwan was used to measure the burnout level. The factor structure of the Maslach Burnout Inventory for nurses in Taiwan was examined using exploratory factor analysis and confirmatory factor analysis [2]. The modified factor structure included three factors with 20 items. The three subscales of burnout include 8 items for EE, 8 opposite items for PA, and 4 items for DP. The subscale total scores for EE, PA, and DP are 48, 48, and 24, respectively. The indices of the model fit were GFI = 0.92, AGFI = 0.90, and RMSEA = 0.05. According to Lee et al. (2015), the level of burnout is low if EE is ≤ 21, DP is ≤ 6, PA is ≥25, and total is ≤44. The level of burnout is moderate if EE is 22-32, DP is 7-12, PA is 16-24, and total is 45-62. The level of burnout is high if EE is ≥ 33, DP is ≥ 13, PA is ≤ 15, and ≥ 63.

Data Analysis

The demographic data was described using samples and percentage, the categorical variables were compared using Chi-square, ANOVA, and continuous variables were examined the correlation using Pearson's correlation method. According to the levels of burnout, the prevalence was calculated. Data were analyzed using SPSS 17 for Windows (SPSS/IBM Inc., Chicago, IL, USA) and Microsoft Excel function.

Results

The sample of 1,846 nurses was obtained from the database. The mean age of the participants was 29.1± 5.3 years, more than 99% of gender (n = 1,814) were female, more than 74.7% of marital status (n = 1372) were unmarried, 51.3% of education (n = 939) were under college, 60.7% of nurse competence were under N1 (refers to novice and advanced beginner) and (Table 1).

	Total	
Characteristics	**n**	**%**
Type of Hospital		
Medical center	624	33.8
Regional	548	29.7
District	674	36.5
Gender		
Male	8	0.4
Female	1814	99.6
Marital status		
Unmarried	1372	74.7
Married	447	24.3
Others	18	1
Education		
Under College	939	51.3
Above University	891	48.7
Nurse competence		
Under N1	1078	60.7
N2	512	28.8
Above N3	186	10.5
Hospital seniority		
ραεψ2 ≤	652	35.5
2-5 years	633	34.5
>5 years	550	30

Table 1: Demographic characteristics of the participants (n = 1846)

Table 2 was the comparison of characteristics on three subscales. On EE dimension, marital status, nurse competence, and hospital seniority were different significantly. Married nurses whose scores on EE were higher than unmarried ($p < .001$); The nurse competence on N2 (refers to competent) and above N3 (refers to proficient and expert) reported higher emotion exhaustion than under N1 (refers to novice and advanced beginner) ($p < .001$); The nurses with above 5 years was the highest scores ($p < .001$). On DP and PA dimension, there was no different significantly among demographic categories. On the total scale (Burnout), only nurse competence was different significantly, N2 and above N3 nurses experienced burnout more than under N1 ($p < .001$).

	Emotional exhaustion				Depersonalization				Reduced personal accomplishment				Burnout			
	Mean	SD	p	Post Hoc	Mean	SD	p	Post Hoc	Mean	SD	p	Post Hoc	Mean	SD	p	Post Hoc
Type of Hospitals			0.33				0.99				0.07				0.42	
1Medical center	29	8.4			7.3	4			19.2	7			55.5	13.5		
2Regional	28.3	8.3			7.3	3.6			19.8	7.7			55.3	13.2		
3District	28.5	9			7.3	4			18.8	7.5			54.5	14.5		
Gender			0.88				0.3				0.5				0.77	
Male	29	10.4			10	6.9			17.5	6.8			56.5	13.8		
Female	28.6	8.6			7.3	3.9			19.3	7.4			55.1	13.8		
Marital status			< .001	2>1			0.99				0.14				0.25	
1Unmarried	28.1	8.5			7.3	3.9			19.4	7.5			54.8	13.7		
2Married	30	8.7			7.3	3.9			18.8	7.1			56	14.1		
3Others	30.6	10.4			7.1	3.4			17	5.1			54.7	14.1		
Education			0.32				0.4				0.77				0.48	
Under College	28.4	8.8			7.2	3.8			19.3	7.4			54.8	13.9		
Above University	28.8	8.5			7.3	4			19.2	7.3			55.3	13.8		
Nursing competence			< .001	2>1			0.38				0.89				< .001	2>1
				3>1												3>1
1Under N1	27.7	8.7			7.2	4			19.3	7.5			54.1	13.9		
2N2	29.7	8.2			7.4	3.7			19.1	7.1			56.1	13.3		
3Above N3	30.7	8.7			7.5	3.9			19.1	7.1			57.3	13.3		
Hospital seniority			< .001	3>2>1			0.38				0.42				0.07	
1≤2 years	27.5	8.6			7.2	4.1			19.5	7.8			54.2	14.1		
22-5 years	28.5	8.7			7.4	3.9			19.2	7.3			55.2	14		
3>5 years	29.9	8.5			7.2	3.7			19	7			56	13.4		

Note: Reduced personal accomplishment scores were inversed, and a higher score means a higher level of burnout.

Table 2: Scores comparison of the characteristics on emotional exhaustion, depersonalization and personal accomplishment dimensions

Most nurses reported moderate levels on the three subscales and total scale. Eighty percent of the nurses reported more than moderate emotional exhaustion, around 67% reported more than moderate depersonalization, and 75% reported more than moderately reduced personal accomplishment, and around 79% of nurses reported above moderate burnout (Table 3).

	Low		Moderate		High	
	N	%	N	%	N	%
Emotional exhaustion	364	20	916	50.4	537	29.6
Depersonalization	606	33.3	922	50.7	291	16
Reduced personal accomplishment	446	24.9	1033	57.6	314	17.5
Burnout	385	20.9	900	48.8	560	30.4

Table 3: Prevalence rate of burnout among Taiwanese nurses (n = 1846).

Discussion

The current study conducted a national survey to explore prevalence of burnout among Taiwanese nurses using proportional stratified random sampling. Among 1846 Taiwanese nurses worked at surgical and medical wards reported that they experienced above moderate burnout. Married, better nursing competence, and senior nurses reported higher emotional exhaustion.

Working places affected the status of burnout [17]. However, the highest percentage of nurses in hospitals working place were medical and surgical wards, but few studies have explored the level of burnout among nurses working in these units. Aiken et al. (2002) found that nurses who work at general wards have a high level of burnout because of a high patient-to-nurse ratio, a high failure-to-rescue rate, and a high mortality because of complications. We compared the prevalence of burnout status with previous studies [17,18] in Taiwan. Hsieh et al. (2004) explored 147 psychiatric nurses worked at regional hospitals in north Taiwan, they found above moderate emotional exhaustion, depersonalization, and low personal accomplishment were 77%, 43%, and 62%, respectively. Hsieh et al. (2008) also explored 253 primary nurses and nurse managers worked at 2 teaching hospitals in north Taiwan, they found above moderate emotional exhaustion, depersonalization, and low personal accomplishment were 87%, 60%, and 61%, respectively. Therefore, the prevalence rate of nurse burnout in Taiwan was high, no matter the specific or general professionals. The status of burnout in the current study was higher than abroad researches [11,13,14,16].

Married nurses experienced more emotional exhaustion in the current study. Emotional exhaustion is higher in married than in unmarried nurses in previous studies [19,20]. Lin et al. (2009) hypothesized that this is because married nurses must pay attention to their job while also caring for their family, and especially for their children. In Taiwan, married women usually live with their parents-in-law, so they are concerned not only about their children, but also about their parents-in-law and their family of origin.

Usually junior nurses were less nursing competence and according to Taiwan nursing competence regulation, the nursing competence upgrade has to consider the working years. In the current study, nurses with higher nursing competence and more hospital senior had higher emotional exhaustion than who with lower nursing competence and more hospital senior. Iglesias, Vallejo, and Fuentes (2010) found that nurses who had worked less than 10 years had a lower state of emotional exhaustion than did those who had worked for more than 10 years. Wang, Kang, and Wu (2010) pointed out that nurses who had worked between 10 and 20 years were usually in key positions on the team, and, therefore, were vulnerable to occupational stress, as well as to stress from family life, such as having adolescent children or elderly care. It would be a crisis to nursing if the senior nurses with good nursing competence suffered from burnout, they might leave the professions.

The other reasons that the burnout status were higher in our study for Taiwanese nurses than for workers surveyed in other studies is, perhaps, that the benefits policies different among countries. The Taiwan National Union of Nurses' Associations (2013) reported that the patient-to-nurse ratio on three shifts in Taiwan was 2-3 times less favorable than in the US, Australia, and other Asian countries; that the average workday was usually more than 10 hours in Taiwan but only about 8 hours in the US, Australia, and other Asian countries; and that 4-5 hours of overtime was common in Taiwan but not elsewhere [21]. Taiwan Nurse Rights Promotion Association (2006) surveyed Taiwanese nurses about suffering index on job such as nurse staffing shortage, hierarchical management and so on. Therefore, an unfriendly working environment and an unclear benefits policy also contribute to why Taiwanese nurses feel burnout.

Conclusion

The prevalence rate of burnout is high among Taiwanese nurses especial in senior nurses group. The administrators should provide effective strategies to decrease nurses' burnout.

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