

ORIGINAL ARTICLE

Nurse occupational burnout and patient-rated quality of care: The boundary conditions of emotional intelligence and demographic profiles

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Abstract

Aim: Most previous studies on the relationship between occupational burnout and the quality of care among nurses have used self-reported data on the quality of care from nurses, thus rendering evaluating the relationship between burnout and the quality of care difficult. Hospitals increasingly hire contract nurses and high turnover rates remain a concern. Little is known about whether nurses' emotional intelligence and demographic factors such as contract status, tenure, and marital status affect the quality of care when burnout occurs. This study investigated the relationship between burnout and patient-rated quality of care and investigated the moderating role of emotional intelligence and demographic variables.

Methods: Hierarchical moderated regression was used to analyze 98 sets of paired data obtained from nurses and their patients at a teaching hospital in northern Taiwan.

Results: The results suggest that occupational burnout has a less unfavorable effect on the quality of care from permanent, married, and senior nurses.

Conclusion: Nursing management should pay particular attention to retaining permanent, married, and senior nurses. To ensure a sustainable nursing workforce in the future, newly graduated registered nurses should have access to permanent positions and opportunities for long-term professional development. In addition, married nurses should be provided with flexible work–family arrangements to ensure their satisfaction in the nursing profession.

Key words: contract nurse, emotional intelligence, marriage status, occupational burnout, patient-rated quality of care.

INTRODUCTION

Nurses are the primary caregivers in medical institutions and the healthcare professionals with the closest and most frequent contact with patients. Therefore, they play a critical role in ensuring patient safety. Thus, the long-term stress factors that nurses encounter can affect their physical and emotional health, leading to

occupational burnout. Occupational burnout of nurses can affect the quality of care that patients receive (Salyers *et al.*, 2014; Van Bogaert, Kowalski, Mace Weeks, Van Heusden, & Clarke, 2013) and increase turnover rates (e.g. Shader, Broome, Broome, West, & Nash, 2001).

A high turnover rate among nurses has been a persistent problem in the Taiwanese health industry (Chu & Hsu, 2011). In 2011, there were only 59.2% registered nurses among all licensed nurses with 7.67 years of work experience in Taiwan, which was lower than in Western countries (Kao, 2011). Hospitals continually recruit new nurses but often remain understaffed. Newly hired nurses may be young and unmarried with limited

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professional and life experience, causing them to encounter frustrations when adapting to a new job or workplace. Furthermore, experienced nurses are constantly required to guide and support student nurses and less experienced colleagues; thus, they have excess workload in addition to their duties. When young, unmarried, or less experienced nurses experience occupational burnout, it is unclear whether the quality of their care is affected as much as when married or experienced nurses experience occupational burnout. In addition, because of budget cuts in recent years in Taiwan, hospitals have initiated fixed-term employment for nurses, who, employed under such conditions, are referred to as contract nurses. Contract nurses are licensed in the same way as registered nurses, but are not permanent employees. When permanent nurses resign or retire, hospitals typically fill the vacant positions with contract nurses who have passed an entry examination. Although the job description and responsibilities of contract nurses are identical to those of permanent nurses, contract nurses are paid less and receive fewer benefits than do permanent nurses. In the case of occupational burnout, it is unclear whether the quality of care of contract nurses is affected as much as that of permanent nurses. In addition, although emotional intelligence has been determined to have a positive effect in adjusting occupational burnout (e.g. Alavinia & Ahmadzadeh, 2012), whether high emotional intelligence exerts a positive influence on the quality of care of nurses in the case of occupational burnout remains unclear.

Few studies have derived results based on patient evaluations of care quality rather than on nurses' self-evaluations of care quality (e.g. Poghosyan, Clarke, Finlayson, & Aiken, 2010; Salyers *et al.*, 2014; Van Bogaert *et al.*, 2013). This has rendered evaluating the relationship between burnout and the quality of care difficult. In addition, most previous studies have focused on improving work environments to reduce the occupational burnout of nurses, for example, by developing a support management system (Gunnarsdóttir, Clarke, Rafferty, & Nutbeam, 2009), rather than investigating the demographic background or emotional intelligence of nurses. However, the primary concern in occupational burnout research is the subtle interactive relationship between workers and their work; personal background (e.g. sex, age, marital status, years of work experience, and employment status) may influence the manifestation of work stress, which then presents as diverse symptoms. Therefore, this study explored occupational burnout among Taiwanese nurses and investigated whether the emotional intelligence and personal

characteristics of nurses moderated the relationship between occupational burnout and patient-rated quality of care.

Occupational burnout of nurses and quality of care

Occupational burnout is mental and physical fatigue and interpersonal alienation caused by chronic work stress that renders workers unable to maintain work functions (Freudenberger, 1974; Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2010; Iacovides, Fountoulakis, Moysidou, & Ierodiakonou, 1999; Maslach, Schaufeli, & Leiter, 2001).

Compared with other professions, healthcare workers in hospitals or nursing homes who provide direct care to patients are prone to occupational burnout that is more severe (McHugh, Kutney-Lee, Cimioti, Sloane, & Aiken, 2011; Williams & Innes, 2012). Occupational burnout is the factor that most likely leads to nurses' changing jobs (Suzuki *et al.*, 2010). Poghosyan *et al.* (2010) investigated 53,846 nurses from six countries by using secondary data from 1998 to 2005, and found a significant relationship between nurse burnout and nurses' ratings of the quality of care. In summary, these studies have suggested that nurses are highly susceptible to occupational burnout, which eventually leads to a reduced quality of care.

Moderating effect of emotional intelligence

Emotional intelligence refers to a person's awareness of their own emotions and the emotional responses of others. It also refers to the ability to control and use emotions (Goleman, 1995; Mayer & Salovey, 1993). People with high emotional intelligence can focus on an established goal while maintaining a high degree of enthusiasm and can skillfully use emotional information to solve problems encountered in work or life (Mayer & Salovey, 1993; Tsaousis & Nikolaou, 2005). Emotional intelligence has been determined to be a superior predictor of occupational burnout (Alavinia & Ahmadzadeh, 2012; Baik & Yom, 2012; Karakuş, 2013; Weng *et al.*, 2011). Improving emotional intelligence can reduce the incidence of chronic stress developing into occupational burnout (Görgens-Ekermans & Brand, 2012; Mansoor, Amir, Pooran, & Masood, 2011). In the present study, the authors expected that emotional intelligence helps people make optimal decisions and maintain high job satisfaction. In addition, proper management of emotional intelligence can assist people in saving time, expanding opportunities, and focusing their energy on obtaining superior results

(Cooper, 1997). Therefore, the present authors expected that the negative relationship between burnout and the quality of care is weaker in nurses with high emotional intelligence than in those with low emotional intelligence.

Demographic variables as moderators

Marital status

Most studies have shown that married employees exhibit less stress and higher job satisfaction, experience lower rates of occupational burnout, and are physically and mentally healthier than unmarried employees (Gorter, Eijkman, & Hoogstraten, 2000; Maslach *et al.*, 2001). Using a Taiwanese sample, Chuang and Yang (2011) found that married and senior nurses experienced less occupational burnout than did single and junior nurses. Accordingly, the present authors hypothesized that the negative effect of occupational burnout on the quality of care that nurses provide is weaker in married nurses than in unmarried nurses.

Experience

Multiple studies have determined that inexperienced workers feel an increased amount of work stress (Wilson *et al.*, 1998) and their physical and mental health conditions are inferior to those of experienced workers (Möller & Spangenberg, 1996). The degree of occupational burnout among inexperienced workers is higher than that among experienced workers (Gorter *et al.*, 2000; Iacovides *et al.*, 1999; Ilhan, Durukan, Taner, Maral, & Bumin, 2008). Because inexperienced nurses have had fewer encounters in patient care than experienced nurses have, inexperienced nurses may encounter more difficulties in recovering from emotional exhaustion when they experience occupational burnout. In addition, inexperienced nurses may be less able to maintain an emotional distance from patients and to alleviate their emotions when faced with illness or death. The accumulated effects of such experiences could be reflected in the quality of care provided. Therefore, the present authors hypothesized that the negative effect of occupational burnout on the quality of care is stronger for inexperienced nurses than for experienced nurses.

Employment status

Contract nurses in Taiwanese public hospitals receive less pay and fewer benefits than permanent nurses do, although their workload and responsibilities are identical. A study on contract nurses in China found that contract-based nurses who were dissatisfied with their

salary and benefits were more likely to intend to leave their current positions (Shang *et al.*, 2014). In addition, Chu and Hsu (2011) found in Taiwan that when full-time nurses were rated by supervisors, job performance levels were significantly higher compared with contract nurses. Therefore, the present authors hypothesized that contract nurses may lose more passion for their work than permanent nurses do when experiencing occupational burnout, leading to increased documented instances of poor quality of care provided by contract nurses.

METHODS

Sample and data collection procedures

This study was a cross-sectional survey conducted to collect nurse–patient dyadic data. Nurses and their patients at a public hospital in northern Taiwan were surveyed. Non-managerial nurses were selected to participate in the survey. The nurse participants were required to evaluate their own occupational burnout, emotional intelligence, and demographic information, and their quality of care was objectively evaluated by three types of informants: patients who must be looked after by the nurse for at least 5 days, the patients' family caregiving members, and domestic or foreign employed caregivers.

Two fully trained research assistants implemented data collection procedures. The nurse participants signed consent forms after they were fully informed about the purpose of the study. They were also guaranteed confidentiality and that all data were used only for research, and no personal information could be identifiable individually. The nurses returned the survey in provided sealed self-adhesive envelopes to the survey box at their work unit to ensure confidentiality. The research assistants then collected the sealed envelopes for the duration of the investigation. For the patient participants, the research assistants visited them, ensured that the survey consent forms were signed, and instructed them to complete the survey. The process took approximately 15–20 min. For gratitude, the nurse participants received a gift voucher (\$US 3) for a convenience store and the patient participants received a snack.

Ethical considerations

Because the survey required recording the names of the nurses who participated in this study, this study was

approved by the hospital's institutional review board (no. 2013-01-021BCF) before data collection.

Measurements and instruments

Occupational burnout was assessed using the Chinese Version of Maslach Burnout Inventory (MBI) (Maslach, Jackson, & Leiter, 1996), which was validated by Taiwanese researchers (Lu, Lee, & Shieh, 2005). Nurses responded to 20 items (e.g. “I feel emotionally drained from my work”) on a 5 point scale (1 = never, 2 = rarely, 3 = occasionally, 4 = often, and 5 = always).

The Chinese version of Goleman's (1995) emotional intelligence inventory, validated by Wu and Chang (2011), was used in this study. The present authors slightly modified the wording of the items to fit the healthcare setting. This 50 item scale assessed five dimensions: self-awareness, emotional management, self-motivation, empathy, and interpersonal relationships. Nurses responded on a 5 point scale (1 = never, 2 = rarely, 3 = occasionally, 4 = often, and 5 = always) to items such as “I am aware of my emotions as I experience them” and “I help patients feel better when they are down”.

Patients, patients' family members, and employed caregivers were asked to assess the quality of care of their nurse by using a 5 point scale (1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied). The present authors developed the scale on the basis of the customer satisfaction survey administered by the hospital. This 12 item scale measured three dimensions: knowledge (e.g. “My nurse explains instructions for medicine well”), technique (e.g. “My nurse is skilled in care and treatment”), and work attitude (e.g. “My nurse is benevolent and friendly to me”). The mean scores from the three informants were used for subsequent analysis.

Demographic variables included marital status (coded as 0 for unmarried, divorced, separated, or widowed, and 1 for married), tenure in the current hospital (coded as 0 for 6 years or less, and 1 for 7 years or more; the average work experience of nurses in Taiwan is 7.67 years [Kao, 2011], suggesting that nurses with >7 years of work experience present as stable manpower in Taiwan), and employment status (coded as 0 for contract nurses, and 1 for permanent nurses) were defined as intervening variables in this study. In addition, education level (coded as 0 for a technical or vocational college education, and 1 for a 4 year university education) and work unit (coded as 0 for internal medicine, 1 for surgery, and 2 for emergency room or hospice) were defined as control variables and analyzed.

Data analysis

Initially, descriptive statistics, Pearson correlation coefficient, and Cronbach's alpha for internal consistency reliability were analyzed using SPSS Statistics version 20.0 (SPSS, Chicago, IL, USA). Subsequently, confirmatory factor analysis (CFA) was conducted using Lisrel 8.7 (Jöreskog & Sörbom, 2004) to confirm the validity of measures. The comparative fit index (CFI), non-normed fit index (NNFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used to assess the model fitness. Furthermore, the authors conducted hierarchical moderated regression to test the moderating effects. Finally, to address the adequacy of the sample size, the authors used Power and Precision version 4.0 (Biostat, Englewood, NJ, USA) to conduct power analysis.

RESULTS

Sample characteristics

A total of 98 sets of paired data were obtained from nurses and their patients. The response rate was 100%. All the nurse participants were women (Table 1). Most of the participants were between the ages of 31 and 40 years (30 participants, 30.6%); 62 participants (63.3%) had a bachelor degree from a technical or vocational college; and 52 participants were unmarried (53%). Most of the participants had between 1 and 3 years of work experience (29 participants, 29.6%) and 23 participants had between 11 and 20 years of work experience (23.5%). Permanent employees (50 participants) comprised 51%, and contract employees (48 participants) comprised 49% of the participants. Most of the participants served at the internal medicine department (47 participants, 48%). A total of 294 participants were involved in the care quality assessment. A total of 40% were patients (117 participants), 32% were spouses and other family members (95 participants), and the remaining 28% were employed caregivers (82 participants). Most of them were women (176 participants, 60%) and married (232 participants, 79%), and 43% were older than 60 years (126 participants).

Scale validity

Scale validity was assessed in two ways. First, prior to survey, two nursing experts and one medical management scholar were asked to evaluate the clarity, appropriateness, and suitability of each item when applied in a nursing setting. Second, second order CFA revealed that the model fit the data well for occupational burnout

Table 1 Demographic data of the present study

Characteristics	Nurses (<i>n</i> = 98)		Patients/family (<i>n</i> = 294)	
	N	%	N	%
Status				
Patients			117	40
Family members			95	32
Employed caregivers			82	28
Sex				
Female	98	100	176	59.9
Male			118	40.1
Age				
20–30 years	42	42.8	14	4.7
31–40 years	30	30.6	40	13.6
≥41 years	26	26.5	240	81.6
Marital status				
Married	52	53.1	232	79
Unmarried	46	46.9	62	21
Education				
Technical school or vocational college	62	63.3	129	43.9
University	36	36.7	20	6.8
Other			145	49.3
Work experience				
1–3 years	39	39.8		
4–6 years	6	6.1		
7–10 years	17	17.3		
≥11 years	36	36.8		
Employment status				
Contract	48	49.0		
Permanent	50	51.0		
Department				
Internal medicine	47	48.0		
Surgical department	16	16.3		
Emergency room or hospice departments	35	35.7		

($\chi^2_{(167)} = 442.049$, CFI = 0.94, NNFI = 0.93, RMSEA = 0.14, and SRMR = 0.08) and quality of care ($\chi^2_{(51)} = 325.56$, CFI = 0.95, NNFI = 0.93, RMSEA = 0.20, and SRMR = 0.02). Given the sample size limit, first order CFA was conducted for emotional intelligence; good model fit was achieved ($\chi^2_{(3)} = 10.90$, CFI = 0.98, NNFI = 0.95, RMSEA = 0.16, and SRMR = 0.02).

Correlations and regression analysis

Table 2 lists the descriptive statistical analysis and Pearson coefficients for the variables in this study. The average level of emotional intelligence, occupational burnout, and quality of care was 3.64, 2.10, and 2.20, respectively. Nurse occupational burnout was not significantly correlated with the quality of provided care as assessed by the patients ($r = 0.12$, *n.s.*). In addition,

emotional intelligence among nurses was not significantly correlated with occupational burnout ($r = -0.04$, *n.s.*) or the quality of care as assessed by the patients ($r = 0.12$, *n.s.*). Cronbach's alpha for all scales suggested favorable internal consistency (Nunnally, 1978). Subsequently, hierarchal moderated regression was used to test the interactive effects of emotional intelligence, marital status, tenure, and employment status on the relationship between occupational burnout and the quality of care. As shown in Table 3, after the present authors controlled for the department and education level, emotional intelligence exerted no interactive effect on the relationship between occupational burnout and the quality of care ($B = 0.21$, *n.s.*). Married ($B = 0.31$, $P < 0.050$), years of work experience ($B = 0.34$, $P < 0.050$), and permanent nurses ($B = 0.41$, $P < 0.010$)

Table 2 Mean, standard deviation, and Pearson's correlation coefficients of variables

	Mean	SD	1	2	3	4	5	6	7	8
1. Education level	1.37	0.48								
2. Department	1.88	0.91	0.20							
3. Marital status	1.47	0.50	−0.08	0.22*						
4. Years of experience	1.54	0.50	0.15	0.06	0.50***					
5. Employment status	1.51	0.50	0.15	0.01	0.43***	0.86***				
6. Emotional intelligence	3.64	0.48	0.02	−0.11	0.17	0.22*	0.11	(0.94)		
7. Occupational burnout	2.10	0.73	−0.05	−0.34**	−0.24*	−0.13	−0.07	−0.04	(0.95)	
8. Quality of care	2.20	0.54	−0.17	−0.20	0.08	0.02	0.09	0.12	0.12	(0.94)

N = 98; * $P < 0.050$, ** $P < 0.010$, *** $P < 0.001$; Cronbach's alpha is presented in parentheses; education level (0 = technical or vocational college; 1 = university); department (0 = internal medicine; 1 = surgery; 2 = emergency room or hospice); marital status (0 = unmarried; 1 = married); years of experience (0 = 6 years or less; 1 = 7–21 years); employment status (0 = contract; 1 = permanent). SD, standard deviation.

Table 3 Results of hierarchical moderated regression analysis for interaction effects on quality of care ($n = 98$)

	Patient-rated quality of care			
	Model 1	Model 2	Model 3	Model 4
Main effects				
Constant	4.19*	3.09***	3.08***	3.39***
Surgery [†]	−0.07	−0.05	−0.04	−0.06
Emergency room or hospice [†]	−0.17	−0.15	−0.13	−0.12
University [†]	−0.15	−0.10	−0.13	−0.14
Burnout	−0.73	−0.46***	−0.44	−0.54*
Emotional intelligence	−0.55	0.13	0.12	0.12
Married [§]	0.12	−0.92*	0.12	0.11
7–21 years of experience [¶]	−0.30	−0.32	−1.29	−0.34
Permanent employee ^{††}	0.31	0.31	0.33	−0.82***
Interactive effects				
Burnout × emotional intelligence	0.21			
Burnout × married		0.37*		
Burnout × 7–21 years of experience			0.34*	
Burnout × permanent employee				0.41**
F	1.36	1.86***	1.79***	2.12*
F change	1.52	5.50*	4.96*	7.64**
R ² (R ² change due to interaction)	0.12 (0.02)	0.16 (0.05)	0.16 (0.05)	0.18 (0.07)

*** $P < 0.10$, * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (unstandardized coefficients are reported). [†]Dummy variables for department; contrast group is “internal medicine”. ^{††}Dummy variables for education level; contrast group is “technical or vocational college”. [§]Dummy variables for marital status; contrast group is “unmarried”. [¶]Dummy variables for years of experience; contrast group is “6 years or less”. ^{†††}Dummy variables for employment status; contrast group is “contract employee”.

exerted significant interactive effects on the relationship between occupational burnout and the quality of care. In other words, the relationship between occupational burnout and the quality of care changed according to whether a nurse was married or unmarried, experienced or inexperienced, and a permanent or contract employee.

The present authors further investigated the status of interactive effects (Aiken & West, 1991). Figure 1 shows the moderating effects of marital status. Compared with

married nurses, unmarried nurses experienced increased feelings of occupational burnout and the quality of care that they provided deteriorated. The moderating effects of years of work experience show a similar pattern. Inexperienced nurses who encountered occupational burnout reported a deteriorated quality of care, whereas experienced nurses did not. Furthermore, Figure 2 shows the moderating effects of employment status. The patterns for employment status were similar to those for marital status or work experience. Contract nurses who

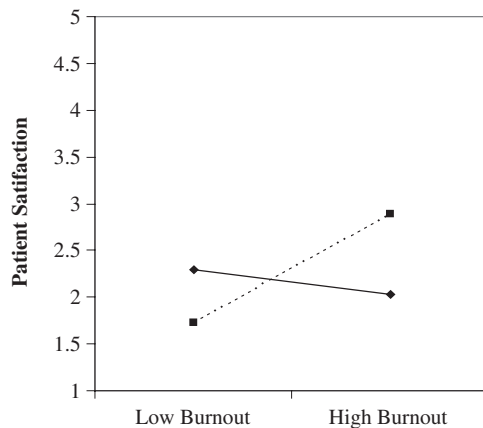


Figure 1 Marriage status as the moderator. (—◆—) Unmarried, (··■··) married.

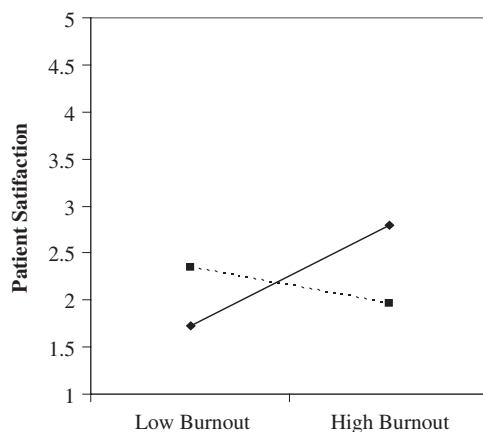


Figure 2 Employment status as the moderator. (—◆—) Regular, (··■··) contract.

experienced increased feelings of occupational burnout reduced the quality of care that they provided to patients, whereas permanent nurses did not.

Power analysis

To address the adequacy of the sample size, the present authors used Power and Precision version 4.0 to conduct power analysis. Power analysis is conducted to calculate the adequacy of a sample size with a power of 0.80, as suggested by Cohen (1988). The adequacy of the sample size for four models in Table 3 is 124, 91, 91, and 81, respectively. The results suggest that except for model 1 being underpowered, the other three models yielded accurate results with a sample size of 98 in this study. In

other words, the insignificance obtained for moderating the effect of emotional intelligence might have resulted from an inadequate sample size.

DISCUSSION

Numerous previous studies have explored reducing occupational burnout and increasing the quality of care from a perspective of improving the workplace (e.g. Gunnarsdóttir *et al.*, 2009). This study analyzed 98 sets of paired data obtained from nurses and their patients to address an overlooked factor, that is, whether emotional intelligence and demographic profiles make a difference in the relationship between occupational burnout and the quality of care. The present authors' study explored this relationship with consideration to emotional intelligence and demographic characteristics and offers a novel perspective. The results indicate that permanent, married, and experienced nurses who experienced increased feelings of occupational burnout did not exhibit a deteriorated quality of care, whereas contract, unmarried, and inexperienced nurses did.

The findings of the present study reveal that permanent nurses outperform contract nurses when occupational burnout is high. However, according to the 2007 Taiwan Labor Front Human Resources Report, as much as 47.6% of nurses at public hospitals were contract nurses rather than permanent nurses. Turnover rates for contract nurses were found to be as high as five to eight times of those for permanent nurses (Chu & Hsu, 2011). Overall, employing contract nurses promptly reduces personnel cost at the cost of unstable manpower and quality of care to patients in the long term.

Moreover, the study revealed that occupational burnout exerted a less negative impact on the quality of care to patients from married and senior nurses. This may have several causes. Studies have shown that married employees exhibit less stress and higher job satisfaction, experience lower rates of occupational burnout, and are physically and mentally healthier than unmarried employees (Gorter *et al.*, 2000; Maslach *et al.*, 2001). Using Taiwanese samples, studies have found that married and senior nurses experienced less occupational burnout and had a stronger organizational commitment than did single and junior nurses (e.g. Chuang & Yang, 2011), having a healthier lifestyle and a more favorable quality of life (Chen, Chang, Chang, & Sung, 2011).

Previous research has demonstrated that emotional intelligence exerts a considerable effect on reducing occupational burnout (e.g. Görgens-Ekermans & Brand,

2012; Harper & Jones-Schenk, 2012). The present authors' power analysis suggested that a sufficient sample size is necessary to determine the effect of emotional intelligence as a boundary condition between occupational burnout and its effect on the quality of care. Therefore, although a moderating effect of emotional intelligence on the relationship between occupational burnout and the quality of care was not found, the contingency role of emotional intelligence cannot be eliminated.

STRENGTH, LIMITATIONS, AND FURTHER DIRECTIONS

Most previous studies on the relationship between occupational burnout and the quality of care among nurses have used self-reported data, leading to common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), which has been widely assumed to inflate relationships between variables measured using self-reports. This study collected nurse–patient dyad data, thus increasing the confidence in the present authors' results. Nonetheless, future research should measure burnout and the quality of care from different rating sources, for different periods, and in different data formats (e.g. archival data, observation, and interview) to minimize common method bias. In addition, although the response rate was 100%, the authors' sample size of 98 sets of paired data obtained from nurses and their patients was fairly acceptable. The sample size led to an inadequate effect power for the moderating effect of emotional intelligence. Therefore, a larger sample size is required for further research. Third, the authors' sample was obtained from nurses in one public hospital. Further research is necessary to expand the sample to increase the generalizability of the results. In this study, the authors focused on the boundary conditions in the relationship between occupational burnout and the quality of care among nurses. The results should be generalized to other similar service professions, such as education, social work, and police work, in which occupational burnout commonly occur. Finally, although the authors assume that their research framework presents a global phenomenon across cultures and sex, they could not rule out the possibility of the effect of cultural norms and sex factors. Future research may replicate the study among Western culture or male sample.

CONCLUSION

This study suggests that occupational burnout has a less unfavorable impact on the quality of care for perma-

nent, married, and senior nurses. To ensure a sustainable nursing workforce in Taiwan in the future, nursing management should focus on newly graduated registered nurses rather than relying on contract nurses for short-term manpower. Particular attention should be paid to ensuring that newly graduated registered nurses have access to permanent positions in which they will be well supported, feel valued, and have opportunities for long-term professional development. Finally, married nurses should be provided with flexible work–family arrangements to ensure their satisfaction in the nursing profession.

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CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

AUTHOR CONTRIBUTIONS

All authors contributed to the conception, design of this study, statistical analysis, and drafted the manuscript. All authors read and approved the final manuscript.

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