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How does burnout impact the three components of nursing professional commitment?

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How does burnout impact the three components of nursing professional commitment?

Background: While the impact of burnout on organisational commitment has been widely observed, its impact on nursing professional commitment has not previously been investigated. The literature has clarified that professional commitment has three distinct components: affective, continuance and normative.
Aims: This study aims to investigate the relationships between burnout and the three components of nursing professional commitment.
Methods: This was a cross-sectional study using questionnaires to collect data in one large medical centre. Responses from 571 nurses were used for regression analysis. Among the sampled nurses, 90.9% had <15 years of nursing experience. MBI-HSS was used for measuring burnout. Three components of nursing professional commitment came from Meyer et al. (J Appl Psychol, 78, 1993 and 538) a formally validated instrument.
Results: Analytical results indicated that burnout is negatively related to affective and normative professional commitment ($B \leq -0.09$, $p < 0.01$), but not related to continuance professional commitment ($B = 0.05$, $p > 0.05$).
Linking evidence to action: Nurse managers aiming to improve nurses' professional commitment should consider reducing nurses' burnout, for example improving nursing optimism and reducing administrative tasks, as suggested by the literature.

Keywords: affective commitment, burnout, continuance commitment, normative commitment, nursing, professional commitment.

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Introduction

Professional commitment has been defined as the degree to which an individual is dedicated to and proud of being a member of a profession, and how he/she believes in the values and goals of the profession and hopes to maintain membership thereof (1, 2). Professional commitment is important to managers globally since it can boost individuals' efforts to be devoted to their jobs (3) as well as enhance nursing job satisfaction (4, 5) and nursing performance in healthcare organisations (6). Moreover, it can reduce nursing turnover intention and improve job satisfaction (3). However, previous studies on the applications of commitment have focused on organisational commitment (rather than professional commitment), thus indicating the need for research on professional commitment and its correlates.

When reviewing the literature for seeking for potential correlates of nursing professional commitment, burnout has been one of the most frequently examined constructs (as in 7–9) and has been defined as a lack of energy and emotion for work, psychological distress, emotional exhaustion, a self-perception of degraded work performance and an occupational stress resulting from psychological and emotional demands (10, 11). However, no study has yet examined how burnout is related to all three of the components of nursing professional commitment (i.e. affective, continuance and normative),

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revealing a research gap. Research filling this gap can distinguish whether burnout has a varied impact on the three components. Since the three differ from each other, the associations between burnout and these components are expected to be different.

Research addressing this issue is both theoretically and practically important. Theoretically, clarification of the relationships advances understanding of the importance of burnout by helping to clarify the distinction between the three components. Practically, understanding these components can help retain nurses (1) and enable nurses to accept current workplace practices and cooperate with colleagues (12). Therefore, research aiming to improve the component trio of nursing professional commitment can assist managers in effectively retaining nurses.

Hence, the purpose of this study was to address this omission by investigating the relationships between burnout and the three components of nursing professional commitment. This study is posited as an addition to existing knowledge on commitment in nursing. Specifically, the three components of occupational (professional) commitment have various influences on work-related outcomes (12), demonstrating the distinctiveness and importance of these components. This study is unique in investigating one potential antecedent, that is burnout, of these components.

Literature review

Professional commitment: similar terms and dimensions

The definition of *professional commitment* is similar to those of *career commitment* and *occupational commitment*. Career commitment is defined as the attitude towards one's profession and it is used interchangeably with professional commitment (13). Likewise, occupational commitment and professional commitment are regarded as interchangeable (14). The term professional commitment is chosen to be consistent with the current nursing studies (13). Such consistency assists in the development of associated knowledge.

When examining professional commitment, a well-known construct: organisational commitment should be explained and compared to clarify its difference with professional commitment. Organisational commitment has been defined as affective attachment, perceived costs and obligation (15). Organisational commitment is a force binding employees to an *organisation*. However, professional commitment is a force binding professionals to a *profession* (2), rather than a specific organisation. That is, professional commitment differs from organisational commitment in the target to which an individual is committed. The literature also supports that professional commitment is distinctive from organisational commitment, both conceptually and operationally (14).

The literature has regarded nursing professional commitment as a unidimensional construct (16) but an alternative approach is also appropriate if it can provide insights for practitioners. For example, commitment has been conceptualised into three components—affective, continuance and normative (15)—and this conceptualisation has been applied to organisational contexts.

This three-component conceptualisation has also been successfully applied to nursing professional commitment (1, 17). In the definition of each of the three components, nursing is thus the profession that is the target for commitment. Affective commitment indicates individuals' emotional attachment and identification with the profession. Continuance professional commitment indicates the perceived need to stay within the occupation as well as the costs associated with moving to another one. Normative commitment indicates the perceived obligation to remain in the occupation (17). Individuals committed to a profession believe in its value (2), and therefore that remaining in the profession is morally correct behaviour. Consequently, such individuals have a perceived obligation to remain in the profession, that is, are normatively committed to it.

Burnout

Burnout has been identified as a risk factor for various adverse health outcomes, for example depression, anxiety, neck and back pain, poor self-rated health, sleep disturbance and perceived memory impairment (18). Burnout is also a significant issue for management because it reduces job satisfaction and increases turnover intention in nursing and other professions (9, 10) and affects nurses' physical and mental health (19). Additionally, components of burnout (i.e. emotional exhaustion and depersonalisation) are related to nursing professional commitment (16).

Regarding burnout as a multidimensional construct, research can further examine the impact of its components (i.e. emotional exhaustion, depersonalisation and reduced personal achievement) on the components of nursing professional commitment (i.e. affective, continuance and normative commitment). This is valuable to nurse managers in assisting them to effectively manage components of burnout to enhance components of nursing professional commitment.

Hypotheses development

Burnout was defined using the three components, that is emotional exhaustion, depersonalisation and reduced personal achievement. Among them, emotional exhaustion indicates the depletion of energy and emotion for work, that is one's valuable resources (11). However, individuals tend to conserve their valuable resources in terms of energy, time and emotion (20, 21). Deprivation

of valuable resources can lead to dissatisfaction and thus individuals with burnout are likely less satisfied in their work, creating cognitive dissonance and bringing about a situation in which they seek to reduce the negative effect on their work, eventually reducing their affective professional commitment. Moreover, burnout was known for creating depression (18). Accordingly, burnout is expected to result in negative emotion among nurses, degrading nurses' emotional attachment to the nursing profession, which is the core of the definition of affective professional commitment (17). Therefore, burnout should be negatively related to affective professional commitment.

Moreover, depersonalisation (another component of burnout) indicates that individuals do not regard peers and clients as persons (11). In such case, individuals do not have interpersonal affective connections to their peers and clients, those who are important in their professions. Consequently, individuals feel degraded emotional attachment to the profession. Furthermore, reduced personal achievement (another component of burnout) indicates that individuals do not feel that they accomplish meaningful objectives in their profession (11). Individuals accomplishing nothing meaningful should have restrained positive affect and might build minimum attachment to their profession. Emotional attachment to a profession is the core of the definition of affective professional commitment (17). Hence, this study hypothesised the following:

H1: Burnout is negatively related to affective professional commitment

Burnout is associated with the past devotion of energy and emotion to work (11) that should serve as individual devotion to the current *work*. Such devotion also serves as an individual's investing time and money (e.g. in gaining a professional qualification) in the current *profession* (22), building a nurse's competence in performing professional tasks with excellence and generating returns that serve as costs (as time and money for educational preparation) if the nurse chooses to switch professions. Such switching costs are defined as continuance professional commitment (17). Therefore, nurses with higher burnout have higher continuance professional commitment.

Burnout has two more components, such as depersonalisation and reduced personal achievement (11). Depersonalisation hinders the development of social networks in the profession; reduced personal achievement deteriorates perceived competency in the profession. These two components reduce the social and competency-related values from professional work, motivating individuals to assess the profession in alternative perspectives, for example time and money for educational preparation. The time and money serve as costs if an individual chooses to switch professions. Such switching costs are continuance professional commitment (17). Hence, this study hypothesised the following:

H2: Burnout is positively related to continuance professional commitment

Burnout has a core component—emotional exhaustion—or the depletion of an individual's emotional and physical resources at work. Such depletion is contradictory to the human tendency to protect and conserve their resources (21). People may be willing to devote their valuable resources because they feel obligated to do so. Hence, such devotion can be regarded as an effort towards fulfilling obligations to the profession. When such obligations are fulfilled, he/she may feel a low level of obligation to stay within the profession, that is having a low level of normative professional commitment. Hence, burnout should be negatively related to normative professional commitment.

Burnout also has two components, such as depersonalisation and reduced personal achievement (11). Depersonalisation indicates that an individual may not work for the profession for maintaining supportive interpersonal relationships. One alternative reason for working in this profession is to fulfil the obligations to it. Moreover, reduced personal achievement indicates that an individual works for a profession and obtains no feeling of achievement. Similarly, one alternative reason for working in this profession is to fulfil the obligations to it. When the obligations are fulfilled, such an individual may feel a reduced level of obligation to stay in the profession, or a reduced level of normative professional commitment. Hence, this study hypothesised the following:

H3: Burnout is negatively related to normative professional commitment

Methods

Sample and data collection processes

This study used a cross-sectional design and self-administrated questionnaires to collect data. Cross-sectional design and survey methods were found acceptable to the nursing studies on burnout or professional commitment (1, 5, 9). The sample was comprised of nurses working in a medical centre in Northern Taiwan in 2011. The study was approved by the Institutional Review Board (Chang Gung Medical Foundation Institutional Review Board) (99-2609B) and the nursing department of the hospital, and included all units except one in which the head nurses declined to allow participation. The inclusion criteria for nurses were that they were full time and had been working at the hospital for 3 months or more. Head nurses, nursing practitioners and nursing students were excluded.

The list of eligible nurses was obtained, enabling this study to conduct simple random sampling, maximising the sample's representativeness. Specifically, Excel software was used to generate a random number for each eligible nurse. The nurses were then ordered according to their random numbers. The nurse with the smallest random number was first included in the sample, and so on. Since there are no appropriate historical data for estimating the sample size, this study made the sample size decision according to the grant size. The project grant allowed for the inclusion of 600 participants out of the 2322 eligible nurses, accounting for 25.8% of the eligible nurses. Sampled nurses were approached and briefed on the study's purpose. Those who agreed to participate were asked to fill in informed consent forms. In total, 571 nurses consented to participate and returned completed questionnaires, generating a ratio of 95.2% (=571/600). This sample size is comparable to the recent nursing studies on burnout or professional commitment (9, 17).

Instruments

Items measuring burnout came from the Maslach Burnout Inventory-Human Service Survey (MBI-HSS) (10) in which burnout was comprised of three measurement components: emotional exhaustion (nine items), depersonalisation (five items) and personal achievement (eight items). This scale was applied to the contexts of education, social services and nursing (11), indicating its wide applicability and justifying its use in this study. The wording was changed slightly to fit the research context; that is, 'client' was changed to 'patient'. This scale exhibited sufficient reliability (Cronbach's $\alpha = 0.92$, emotional exhaustion; 0.84, depersonalisation; and 0.86, personal achievement) in the literature (23) and was used in the same language as in the present study.

Items measuring the three components of nursing professional commitment (six items for measuring each component) came from the scale of Meyer et al. (12). The sample items are 'I dislike being a nurse' (reversely coded, measuring affective professional commitment), 'Changing professions now would be difficult for me to do' (measuring continuance professional commitment) and 'I feel a responsibility to the nursing profession to continue in it' (measuring normative professional commitment). Meyer et al. recruited 366 student nurses and 1000 Registered Nurses to develop the scale, which had a Cronbach's α ranging from 0.73 to 0.87. Owing to good reliability, the present study adopted this scale. All the measurement items in this study had a response option ranging from 1 (very disagreeable) to 7 (very agreeable). Higher scores represented higher levels in the measured construct.

Data analysis process

This study used regression analyses to test the hypotheses. The regressors were affective, continuance and normative professional commitment. The independent variables were emotional exhaustion, depersonalisation and personal achievement. The control variables were gender, education, nursing experience, skill level and workload. Nursing experience was measured using the length of time spent in the nursing profession. Education and skill levels were coded into binary variables and subsequently used in the regression analyses.

Skill level was measured using the nursing accreditation level in which N1 represented beginner nurses, N2 advanced beginner nurses, N3 competent nurses and N4 proficient nurses. Certain years of experience in nursing and hours of on-the-job training were required for advancements from N1 to N2, and so on, to N4. In the process, nurses advanced their knowledge, skills and experiences (24), showing a clear pathway for nurses to advance their expertise. Given such significance, it was implemented in Taiwan and also named as clinical nursing ladder levels (25). Owing to space limits, details of the nursing accreditation levels were not included but are available in Teng et al. (26) and Weng et al. (25). Workload was measured using the nurses' responses to the average number of patients cared for.

SPSS 17.0 (SPSS, Chicago, IL, USA) was used for conducting the regression analysis. The significance level was set at 0.05. Two-tailed tests were used with regard to the coefficients of burnout.

Results

Psychometric properties

In this study, one item measuring continuance professional commitment, that is, 'Now there is nothing can prevent me from switching to another profession', was dropped owing to its low item-to-total correlation (<0.50). All other items were retained and then used for subsequent analyses. Table 1 lists the study items and summarises the descriptive statistics. Items measuring each construct had a Cronbach's α exceeding 0.78, suggesting adequate reliability. Totally, 39 items were used for analysis. Among them, 36 (36/39 = 92.3%) had loadings >0.50, fulfil the validity criterion of Hair, Anderson, Tatham and Black (27).

The correlations among the study variables are listed in Table 2. These correlations ranged from −0.43 to 0.56, indicating a low likelihood of common method variance (CMV), that is the correlations among the study variables

Table 1 Summary of descriptive statistics

Construct-Item	*μ*	*SD*	*α*
Affective professional commitment	3.70	0.69	0.83
APC1	4.19	0.82	
APC2[a]	3.43	1.10	
APC3	3.56	0.90	
APC4[a]	3.63	1.03	
APC5[a]	4.08	0.94	
APC6	3.31	0.86	
Continuance professional commitment	3.35	0.76	0.79
CPC1	3.06	1.06	
CPC2	3.32	1.10	
CPC3	3.16	1.08	
CPC4	3.42	1.02	
CPC5	3.79	0.94	
Normative professional commitment	3.10	0.69	0.78
NPC1	3.45	1.11	
NPC2[a]	3.44	1.01	
NPC3	3.21	0.92	
NPC4	3.02	0.99	
NPC5	2.29	0.97	
NPC6	3.17	0.94	
Emotional exhaustion	4.51	1.19	0.92
EE1	5.19	1.41	
EE2	5.45	1.34	
EE3	4.91	1.61	
EE4	4.25	1.69	
EE5	4.52	1.63	
EE6	4.60	1.63	
EE7	4.84	1.36	
EE8	3.39	1.60	
EE9	3.37	1.51	
Depersonalisation	2.64	1.24	0.85
DP1	2.27	1.43	
DP2	2.59	1.54	
DP3	3.22	1.82	
DP4	2.24	1.32	
DP5	2.86	1.66	
Personal achievement	4.73	0.91	0.88
PA1	5.02	1.25	
PA2	5.00	1.07	
PA3	5.40	1.11	
PA4	4.70	1.26	
PA5	4.99	1.28	
PA6	4.52	1.34	
PA7	3.70	1.45	
PA8	4.52	1.20	

μ indicates the mean value.

[a]Denotes the inversely coded items.

owing to the same measurement method. We further conducted a factor analysis and found that the first factor can only account for 24% of the variance. That is, CMV should have minimum influences on the measurement of this study.

Sample description

Table 3 lists the demographic characteristics of the 571 participants of this study. Among the sample, 99.3% were female, 96.4% aged between 20 and 40 years old, 99.1% had attended colleges or universities and 90.9% had <15 years of nursing experience. Most participants had a nursing accreditation level between N1 and N3 (89.6%). Notably, some (5.7%) of the participants reported that they encountered a mixture of day, evening and night shifts in a month.

Hypotheses testing

Age was highly correlated with the length of time spent in the nursing profession ($r = 0.82$), and thus excluded from the regressions. Table 4 lists the analytical results. All the components of burnout, that is emotional exhaustion ($B = -0.20$, $p < 0.01$), depersonalisation ($B = -0.09$, $p < 0.01$), and personal achievement ($B = 0.27$, $p < 0.01$), were all related to affective professional commitment, supporting H1. That is, nurses who are experiencing burnout feel a reduced level of emotional attachment to their role as a nurse. On the contrary, emotional exhaustion ($B = 0.05$, $p > 0.05$), depersonalisation ($B = 0.05$, $p > 0.05$) and personal achievement ($B = 0.05$, $p > 0.05$) were not related to continuance professional commitment, not supporting H2. That is, nurses who are experiencing burnout do not consider a change of career.

Regarding the analytical results on H3, emotional exhaustion was negatively related to normative professional commitment ($B = -0.14$, $p < 0.01$); reduced personal achievement was negatively related to it ($B = 0.23$, $p < 0.01$), consistent with H3. However, depersonalisation was not significantly related to it ($B = 0.01$, $p > 0.05$). As a whole, the H3 was partially supported by the analytical results. In other words, nurses who feel emotionally exhausted do not strongly believe that remaining in their profession is morally the right thing to do, but they do if they experience personal achievement in their work. Experiencing depersonalisation does not influence them one way or the other.

The regressions explained 5% to 36% of the variance of nursing professional commitment components. Based on the assessment criteria of Cohen (28), the effect sizes were small to moderate. The explained variance herein was comparable to nursing studies using psychological approaches (e.g. 6% in 23). The variance inflation factors were all below 2.18, indicating the absence of multicollinearity.

Additional results

More in-depth analysis was conducted to examine the relationships among other relevant demographic and

Table 2 Correlations among the study variables

	1	*2*	*3*	*4*	*5*
1. Affective professional commitment	–				
2. Continuance professional commitment	0.15**	–			
3. Normative professional commitment	0.56**	0.31**	–		
4. Emotional exhaustion	−0.43**	0.08	−0.25**	–	
5. Depersonalisation	−0.42**	0.05	−0.20**	0.44**	–
6. Personal achievement	0.42**	0.09*	−0.33**	−0.07	−0.33**

*p < 0.05; **p < 0.01.

work-related variables and the components of professional commitment. The results indicated that gender ($B \leq 0.38$, $p > 0.05$), education ($B \leq 0.34$, $p > 0.05$), nursing experience ($B \leq 0.09$, $p > 0.05$) and workload ($B \leq 0.01$, $p > 0.05$) were not related to any component of professional commitment. One interesting exception was that nurses holding the lowest skill level (i.e. N1 herein) reported significantly higher normative professional commitment ($B = 0.18$, $p < 0.05$) than the next skill level (i.e. N2).

Discussion

Main findings and implications

This study is the first investigating how burnout impacts the three components of nursing professional commitment (i.e. affective, continuance and normative professional commitment). The analytical results indicate that burnout is inversely related to affective and normative professional commitment, but not related to continuance professional commitment.

The literature found that professional commitment prevents individuals' from withdrawing from a profession (29). The present study initiated investigation into the components of nursing professional commitment that have received little attention. Moreover, it identified the link between burnout and nursing professional commitment. Burnout was further related to nurses' withdrawing intentions (16), consistent with the findings in the literature (29).

The current knowledge on burnout among nurses has identified various antecedents, such as perceptions and stress of conscience (30), stressors and coping behaviour (31), low levels in person–job match in worklife (32), incivility (33), organisational support (34), optimism and proactive coping behaviour (7). Such knowledge is important for managing nurses' burnout. The present study added professional commitment as one important outcome of burnout and thus should further encourage managers to adopt means for reducing nurses' burnout, increasing the impact of the literature that provides such means.

Table 3 Demographic characteristics of the participants

Variable	*Category*	*n*	*%*
Gender	Female	558	99.3
	Male	4	0.7
Age	≥20 and <30 years old	320	57.2
	≥30 and <40 years old	219	39.2
	≥40 and <50 years old	18	3.2
	≥50 and <60 years old	2	0.4
Education	High school	5	0.9
	College/university	526	97.8
	Graduate institute	7	1.3
Length of time in nursing profession (nursing experience)	<1 year	3	0.5
	≥1 and <5 years	206	36.9
	≥5 and <10 years	174	31.1
	≥10 and <15 years	125	22.4
	≥15 and <20 years	39	7.0
	≥20 years	12	2.1
Nursing accreditation level	N1 or below	106	18.9
	N2	226	40.2
	N3	166	29.5
	N4	64	11.4
Average number of patients cared for	1–5	219	41.6
	6–10	168	31.8
	11–15	108	20.5
	16–20	29	5.5
	21–25	2	0.4
	26–30	1	0.2
Current work shift	Day-shift	251	44.7
	Evening-shift	147	26.1
	Night	132	23.5
	Mixed	32	5.7

Missing values were excluded for increasing the clarity of interpretation.

The literature on nurses' burnout also identified its prominent impacts, including turnover intention (32), sick leave (35), poor quality of care and occurrences of adverse events (36). Moreover, one component of burnout (i.e. emotional exhaustion) was linked to the intention to leave health care (37). The present study further contributes to such literature by adding the novel impact of burnout on professional commitment. Such an impact broadens our understanding on the impact of burnout on the nursing profession.

Table 4 Sources of nursing professional commitment components

	APC		*CPC*		*NPC*	
	B	*C.I. of B*	*B*	*C.I. of B*	*B*	*C.I. of B*
Gender	0.21	(−0.37, 0.79)	−0.19	(−0.97, 0.59)	0.38	(−0.28, 1.04)
Education – high school[a]	−0.03	(−0.61, 0.55)	0.11	(−0.66, 0.88)	0.12	(−0.54, 0.78)
Education – graduate[a]	−0.07	(−0.51, 0.37)	0.34	(−0.25, 0.93)	−0.10	(−0.60, 0.40)
Nursing experience	0.04	(−0.04, 0.12)	0.09	(−0.01, 0.19)	0.03	(−0.05, 0.11)
Skill level-N1[b]	0.09	(−0.07, 0.25)	−0.05	(−0.25, 0.15)	0.18*	(0.01, 0.35)
Skill level-N3[b]	−0.09	(−0.23, 0.05)	−0.05	(−0.23, 0.13)	−0.04	(−0.20, 0.12)
Skill level-N4[b]	0.09	(−0.13, 0.31)	0.17	(−0.11, 0.45)	0.19	(−0.05, 0.43)
Workload	0.01	(−0.01, 0.03)	−0.01	(−0.02, 0.01)	0.00	(−0.01, 0.01)
Emotional exhaustion	−0.20**	(−0.24, −0.16)	0.05	(−0.01, 0.11)	−0.14**	(−0.19, −0.09)
Depersonalisation	−0.09**	(−0.13, −0.05)	0.05	(−0.01, 0.11)	0.01	(−0.05, 0.07)
Personal achievement	0.27**	(0.21, 0.33)	0.05	(−0.03, 0.13)	0.23**	(0.17, 0.29)
R^2	0.36		0.05		0.17	

C.I., confidence interval; APC, affective professional commitment; CPC, continuance professional commitment; NPC, normative professional commitment.

*$p < 0.05$; **$p < 0.01$.

[a]The contrast group for education is 'college/university'.

[b]The contrast group for skill level is 'N2'.

Managing burnout may be an effective means of improving affective and normative professional commitment. The pertinent literature has identified numerous means for reducing or preventing burnout. This study recommends that international nurse managers apply these suggestions to manage burnout of their nurses. Findings of this study show that a decreased level of burnout should be related to a high level of affective professional commitment.

Interestingly, this study found that burnout is not related to continuance professional commitment, owing to the increased costs of switching to another profession. Managers should notice that there is a significant difference between nurses' costs associated with leaving the profession of nursing and their decision to leave an organisation they work for (12). That is, nurses may still work in the nursing profession, but work for another organisation.

The nurses' responses demonstrate that burnout is negatively related to affective and normative professional commitment. The reasons may be that nurses experiencing burnout likely depleted their time and energy for work, negating their attachment and perceived obligation to the nursing profession. Nurses who are highly committed to the nursing profession are valuable to healthcare contexts. Hence, managers should seriously consider adopting means for reducing nurses' burnout.

Research limitations and future research directions

This study is a correlational one involving self-administrated questionnaires. Such a research design is reasonable since current psychological variables (i.e. burnout) likely impact the current psychological responses (i.e. components of nursing professional commitment) more than trigger psychological responses in the future. Future studies can adopt an experimental design to examine the causality.

The instruments measuring professional commitment and burnout herein were developed by Meyer et al. (12) and Maslach and Jackson (10) that were years ago. However, the younger generation may exhibit additional aspects of professional commitment, aspects of burnout and their relationships. Future studies could aim to explore such likelihood.

This study uses professional commitment, career commitment and occupational commitment interchangeably. This approach unifies the works on the similar terms. However, these constructs may be different in some subtle aspects. Future studies could aim to conceptually and operationally clarify their differences. Moreover, this study was conducted in a single nursing context, and thus, future studies could replicate the study in other nursing settings.

This study defines burnout using its three components. However, what burnout is could be further explored, for example, using an existential perspective by Arman et al. (38). That study used a qualitative approach and identified three levels of life: action, values and universal existence. As indicated by that study, their findings were somehow different from the previous studies, showing the value of further study on answering what burnout is.

Conclusions

This study adopted the three-component model to develop hypotheses on the relationships between

burnout and the components of nursing professional commitment. The findings supported that burnout was related to components of nursing professional commitment. This study contributes new knowledge to nursing by initiating the adoption of the three-component model to verify the relationship between burnout and nursing professional commitment.

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Author contribution

The first, second, third, fourth, and the last author participated in study design. The first, second, fourth, fifth, and the last author participated in data collection and/or cleaning. The first, second, third, fifth, and the last author participated in data analysis and/or interpretation. All authors participated in drafting and/or revising the manuscript. All authors approved the submitted version of this manuscript.

Ethical approval

The ethical aspects of this study have been approved by the Institutional Review Board (Chang Gung Medical Foundation Institutional Review Board) (99-2609B).

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