Demographic Contributors to Burnout, and the Link Between Burnout and Commitment

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This study investigates how demographic categorical variables affect burnout, and also examines the link between components of burnout and components of organizational commitment. A cross-sectional survey method was used, and the sample consisted of 169 hospital nurses from Taiwan. The main findings of this study were that burnout is influenced by age and marital status, and also that burnout itself influences affective and continuance commitment.

INTRODUCTION

In a professional setting, high levels of burnout and stress are frequently observed in a Nursing context (Spence Laschinger *et al.* 2009, Iglesias *et al.* 2010, van der Colff & Rothmann 2012). Study after study in a variety of contextual settings has found that nurses experience high degrees of burnout – these contextual settings have ranged from countries spanning the globe, including Australia (Barrett & Yates 2002), Belgium (Van Bogaert *et al.* 2013), China (Li & Liu 2000, Lin *et al.* 2009), France (Poncet *et al.* 2007), Hong Kong (Watson *et al.* 2008), India (Kane 2009), Spain (Garrosa *et al.* 2008), USA (Cimiotti *et al.* 2012), and Taiwan (Lee *et al.* 2013). This suggests that burnout is a global phenomenon, and is not a surprising phenomenon because as Maslach *et al.* (2001) suggested, human service professions tend to experience burnout because of the demanding and emotionally charged relationships between caregivers and recipients.

Nursing has also been noted as being a profession where there is a chronic shortage of personnel, i.e. nurses (Persson 1993, MacLean *et al.* 2014, Morgan & Somera 2014). This shortage of personnel is also a global phenomenon (Shang *et al.* 2014). It is quite conceivable that this shortage of personnel is caused by a lack of commitment, and the high rates of burnout suggest that burned out nurses may be voluntarily leaving their organizations, thereby leading to the nursing shortage. Hence, our study will investigate the relationship between burnout and organizational commitment. In addition to this, we will also investigate the specific role of categorical demographic variables on burnout. Several studies have identified certain demographic variable effects on burnout – for instance, studies have explored the role that gender, age, and marital status play on burnout. However, several studies have obtained somewhat mixed results

(Maslach *et al.* 2001, Cocco *et al.* 2003), and it would be interesting to explore the role of categorical variables on burnout, and thereby help clarify the contributions they make towards burnout.

The objectives of this study are to - (i) Investigate the role of categorical demographic variables on burnout, and, (ii) Investigate the effects of burnout on organizational commitment. The demographic variables we consider here are age, marital status, work shift, and no of children, and our sample of nurses were surveyed in a hospital in Taiwan.

Overview of Burnout

Burnout has been described as a major concern by nursing leaders (Maslach & Jackson 1985) and is a long-term process that develops in people as a result of prolonged exposure to stress in the workplace (Toker & Biron 2012, Lee *et al.* 2013). Most research on burnout has classified it into three components – emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach 1982, Maslach *et al.* 2001). Emotional exhaustion is defined as a general loss of energy and a feeling that one's emotional resources are depleted. Depersonalization is described as an emotionally callous, negative, and cynical treatment of recipients of services. Reduced personal accomplishment refers to beliefs of inadequacy and insufficiency on the part of the service provider (van der Colff & Rothmann 2012).

All these three components of burnout have deleterious effects on various outcomes, including low levels of job satisfaction, high rates of turnover, significant problems in job performance, poor morale, and poor quality of care (Persson 1993, Cameron 1994, Song *et al.* 1997, Maslach *et al.* 2001). Some scholars have even found that burned out nursing professionals become hostile towards their colleagues and coworkers (Pape *et al.* 2005, Mitchell *et al.* 2014, Spector *et al.* 2014).

Overview of Commitment

Organizational commitment has become a very widely and abundantly researched topic – several studies have investigated variable effects on commitment (Mathieu & Zajac 1990, Meyer *et al.* 2002, Cooper-Hakim & Viswesvaran 2005, Erdheim *et al.* 2006, Agarwala *et al.* 2014).

The original conceptualization of organizational commitment featured a three-component model of commitment. The first component was affective commitment, which refers to an employee's emotional attachment to, identification with, and involvement in an organization. The second component is continuance commitment which refers to an employee's perception of the costs associated with leaving the organization. The third component is normative commitment, which refers to an employee's feelings of obligation to remain in his or her organization (Meyer & Allen 1991). This three component model is very much still in vogue, although most research in the topic has focused primarily on affective and continuance commitment.

It is likely intuitively and logically that burned out employees will experience a loss in commitment, therefore paving the way for voluntary turnover. After all, a burned out employee experiencing high levels of emotional exhaustion, depersonalization, and reduced personal accomplishment is unlikely to feel attachment to his/her organization, and unlikely to feel obliged to remain in the organization. The relation between burnout and continuance commitment may not be as straight-forward though because of the very nature of continuance commitment. A burned out employee may still have costs associated with leaving the organization, which could then prevent them from leaving the organization.

Also, considering the abundance of negative outcomes that burnout appears to have, it makes it important to understand with better certainty the role that certain factors play on burnout. Research has found several factors that affect burnout – these factors range from being organizational to socio-demographic to buffering factors (Lin *et al.* 2009). In this paper, we focus on socio-demographic variables such as age, work status, work shift, no of children, and marital status. We did not include gender as an explanatory variable here because our sample of nurses was all female.

Demographic Variables and Burnout

Research on demographic variables and burnout has often found conflicting results. For instance, Coffey and Coleman (2000), Edwards *et al.* (2000), and Happel *et al.* (2003) all suggested that mental

health nurses had the highest rates of burnout. However, another study by Payne (2001) found that hospice nurses had the lowest levels of burnout, and another study by Edwards *et al.* (2000) found that community care staff experienced higher levels of burnout than staff working in hospitals. This particular finding seemingly conflicts with another study by Levert *et al.* (2000), where it was found that psychiatric nurses experienced high levels of burnout.

Similarly, gender has yielded different results. Maslach *et al.* (2001) found that there was little difference between men and women in terms of burnout experienced – however, some other studies found that women tend to experience higher levels of burnout than do men (Cocco *et al.* 2003). Similarly, some studies (Maslach *et al.* 2001, Schaufeli & Enzmann 1998) suggest that marital status and education both affect burnout levels. Kilfedder *et al.* (2001) and van der Colff (2001) both found that age had a negative association with burnout – however, Schaufeli and Van Dierendonck (1993) found that burnout had a positive association with age. In addition to this, Potter *et al.* (2010) found that nurses with 6-10 years of work experience had higher levels of burnout – in sharp contrast to this finding Demir *et al.* (2003) found that levels of personal accomplishment are positively associated with the number of years in the nursing profession.

Work shift too has been found to have effects on burnout – one study by Hoffman and Scott (2003) found that nurses who worked 12 hour shifts were more burned out than those that worked 8 hour shifts. Similarly, Burgio *et al.* (2004) found that evening shifts were associated with lower quality of care and higher levels of stress and burnout. However, Smith *et al.* (1988) had found that there were very few differences in burnout in nurses between 8 hour and 12 hour shifts. Morning shifts and afternoon shifts too were associated with lower levels of burnout than were night shifts (Kandolin 1993). No of children too has received some equivocal support– Lemkau *et al.* (1988) found that no of children was not associated with burnout at all. In direct contrast to this finding, Campbell *et al.* (2001) and Embriaco *et al.* (2007) both found that no of children was negatively associated with burnout. In a similar vein, Maslach and Jackson (1985) found that married individuals tended to experience less burnout than did unmarried individuals, but that the difference was not very significant. Similarly, Shanafelt *et al.* (2002) found no relationship between marital status and burnout – however, Ahola *et al.* (2006) found that marital status affected burnout levels, but only in men.

In our study, we will be examining the effects of age, work-shift, no of children, and marital status on burnout levels. We could not examine professional setting or gender because our sample is from one particular hospital, and it turned out that our sample was all female. However, we were able to collect data for the other categorical variables of interest. It is our contention that burnout levels will differ between these four categorical demographic variables. To wit, our hypotheses are as follows –

H1: Burnout levels will differ between different age groups
H2: Burnout levels will differ between different work-shifts
H3: Burnout levels will differ between differing no of children
H4: Burnout levels will differ between different marital statuses

Burnout and Organizational Commitment

While one would expect a fairly straightforward relationship between burnout and organizational commitment, it is our contention that in some cases burnout may actually increase commitment. In terms of affective commitment, we expect to see a negative association between the two. High levels of burnout should be associated with lower levels of affective commitment. The reasoning behind this contention is that affective commitment represents an employee's positive emotional reaction to the organization (Erdheim *et al.* 2006); whereas burnout is a very negative reaction to stress, therefore high levels of burnout will severely reduce levels of affective commitment. After all, if a person is experiencing burnout, he or she is bound to experience emotional exhaustion, depersonalization and reduced personal accomplishments. All of the three components would be likely to decrease one's identification and attachment with one's organization. Therefore, we can present a hypothesis linking burnout and affective commitment:

H6a: Emotional exhaustion will be negatively associated with affective commitment
H6b: Depersonalization will be negatively associated with affective commitment
H6c: Reduced Personal Accomplishment will be negatively associated with affective commitment

When it comes to continuance commitment, we believe that some components of burnout may actually end up increasing that particular form of commitment. Continuance commitment is tied in to perceptions that an employee has of his or her employment alternatives (Meyer & Allen 1991, Erdheim *et al.* 2006). A person who believes that he/she has several viable employment alternatives is likely to exhibit low levels of continuance commitment than is a person who believes that he/she does not have any alternative employment options. And when one considers a burned out person, it is probable that a burned out person, especially one who is emotionally exhausted and has reduced personal accomplishment will be less likely to believe that he or she has viable alternatives to employment. Therefore, one could contend that emotional exhaustion and reduced personal accomplishment will both be positively associated with continuance commitment. We do not believe that depersonalization will be associated with continuance commitment, as perceiving one's colleagues in a cynical way should not affect one's perceptions of whether or not alternative employment opportunities exist.

H7a: Emotional exhaustion will be positively associated with continuance commitment
H7b: Reduced personal accomplishment will be positively associated with continuance commitment

We do not consider normative commitment here because while it is tied in to concerns about leaving one's organization, it is also the least investigated form of commitment. That lack of attention is in part because several studies have suggested that normative commitment is a subsumed by affective commitment, and is a redundant concept. While recent efforts have tried to establish the validity of normative commitment, it remains a contested topic, and has significant similarity with affective commitment. Therefore, we did not include it in our study, and will instead just be investigating the link between burnout and affective commitment and the link between burnout and continuance commitment.

METHOD

Participants

The participants in this study consisted of 169 nurses who completed a survey approved by the IRB of two universities. The sample consisted of nurses working in one of the largest hospitals in Taipei. The surveys were distributed to 172 nurses, and we obtained a high response rate of 98.25%, as we obtained 169 useable surveys. One reason for this high response rate was due to the fact that employees filled out the survey at the work site before the start of their respective shifts. To ensure strict confidentiality and to gain the most candid survey responses, the second author administered the anonymous surveys directly on-site to the employees. All 169 participants were female, and 98 participants were married, while 79 participants had children, and all these nurses were from different shifts (i.e. morning, afternoon, evening, and night).

Measures

Age was measured by a categorical variable ranging from under 25 years of age up to older than 46 years of age.

Shift was measured by a categorical variable denoting morning, afternoon, evening, and night shifts.

Marital Status was measured by a categorical variable denoting single, married, cohabiting, and divorced status.

No of Children was measured by a categorical variable ranging from no children to more than 4 children.

Burnout was measured by using the Maslach Burnout Inventory (Maslach & Jackson, 1985). We used the scales conforming to the two dimensions of emotional exhaustion and depersonalization. A sample item for the emotional exhaustion component of the scale is "I feel emotionally drained from my work". A sample item for the depersonalization component of the scale is "I don't really care about what happens to what some coworkers". A sample item for the reduced personal accomplishment component of the scale is "I have accomplished many worthwhile things in this job". Items were rated on a seven-point scale ranging from 1 (completely disagree) to 7 (completely agree). The Cronbach alpha of the emotional exhaustion scale was 0.862, and was 0.745 for the depersonalization component of the scale, and was 0.755 for the reduced personal accomplishment component of the scale. The Cronbach alpha for the combined scale was 0.821.

Affective Commitment was measured by using the scale used by Meyer and Allen (1997). This scale consisted of six items. A sample item is, "I really care about the fate of this organization." Items were rated on a seven-point scale ranging from 1 (completely disagree) to 7 (completely agree). The Cronbach's alpha of this scale was 0.76.

Continuance Commitment was measured by the scale used by Meyer and Allen (1997). The scale consisted of 7 items. A sample item is, "I am not afraid of what might happen if I quit my job without having another one lined up." Items were rated on a seven-point scale ranging from 1 (completely disagree) to 7 (completely agree). The Cronbach's alpha of this scale was 0.84.

Statistical Analysis

In order to test the hypotheses from 1 through 4, we utilized a Generalized Linear Model (GLM) multivariate analysis, because that allowed us to test all 4 hypotheses together, and also allowed us to conduct post-hoc tests in order to assess the significance of differences between groups. To test hypotheses 6a through 7b, we utilized linear regression.

RESULTS

Table 1 contains the GLM results, and table 2 contains the significant post-hoc test results. Tables 3 and 4 contains our regression analyses.

Descriptive statistics indicated that our sample was all-female, and the majority of our sample was aged between 25 and 35. Our sample was almost equal in terms of married (N=83) and single (N = 77) individuals. Most of the married or cohabiting nurses had spouses or significant others who worked full-time (N = 70). A majority of the nurses were also morning shift nurses (N = 96). About half of the nurses in our sample had at least 1 child (N = 84).

We ran the GLM to test whether or not any of the categorical variables had any effects on burnout components, and we found that age and marital status had both significant effects ($p < 0.05$). We then conducted Bonferroni pairwise comparisons for all of the categorical variables, and found that there was one pair in the age variable that significantly differed from each other – we found that nurses who were between 36-40 years of age felt higher levels of reduced personal accomplishment than the nurses who were between 25-30 years of age ($p < 0.01$). In terms of marital status, we found that divorced nurses had higher levels of depersonalization than single, married, or cohabiting nurses ($p < 0.01$). Therefore, the GLM and the post-hoc analyses support Hypotheses 1 and 4 – the other two were rejected.

TABLE 1
GLM MULTIVARIATE ANALYSIS

	Effect	Value	F
Multivariate Tests	Age	0.177	3.762**
	Shift	0.077	1.638
	Marital Status	0.117	2.436**
	No of Children	0.063	1.301

TABLE 2
GLM POST-HOC ANALYSIS

	Variable Pair	Mean Difference	Outcome Variable
Post-Hoc Tests	Age_3-Age_4	-0.778**	Reduced Personal Accomplishment
	Marital $Status_4$-Marital $Status_1$	1.42**	
	Marital $Status_4$-Marital $Status_2$	2.46**	Emotional Exhaustion
	Marital $Status_4$-Marital $Status_3$	1.71**	

We then ran hierarchical linear regressions for each component of commitment. For affective commitment, we found that both emotional exhaustion and depersonalization were significantly associated with affective commitment. Reduced personal accomplishment was not significantly associated with affective commitment. Emotional exhaustion was negatively associated with affective commitment, which supported hypothesis 6a. However, we found that depersonalization was positively associated with affective commitment, which was in the opposite direction of hypothesis 6b.

TABLE 3
REGRESSION ANALYSIS (AFFECTIVE COMMITMENT)

Variable	B	ΔR^2
Step 1		
Age	0.181	
	0.042	
	0.016	
	-0.085	0.03
Step 2		
Emotional Exhaustion	-0.19**	
Depersonalization	0.36**	
Reduced Personal Accomplishment	-0.01	0.16

For continuance commitment, we found that emotional exhaustion was positively associated with continuance commitment which supported hypothesis 7a, but we failed to find any support for hypothesis 7b. We did not expect any association between depersonalization and continuance commitment, and when we tested the association, we did indeed find no association between them.

TABLE 4
REGRESSION ANALYSIS (CONTINUANCE COMMITMENT)

Variable	B	ΔR^2
Step 1		
Age	0.229	
	0.056	
	0.265	
	0.184	0.08
Step 2		
Emotional Exhaustion	0.274**	
Depersonalization	0.097	
Reduced Personal Accomplishment	-0.051	0.153

DISCUSSION

Our results provide some interesting findings. For instance, in terms of the demographic variable effects, our findings with respect to age are interesting. It essentially implies that the age group of 35-40 tends to suffer higher levels of burnout than does the age group of 25-30. This finding could perhaps be attributed towards increasing responsibilities and duties that the nurses in the age group of 35-40 may face as when compared to the nurses in the age group of 25-30. However, this is speculative reasoning on our part, and additional studies with a particular focus on these and other age group cohorts would be needed before one could make a definitive statement. Our other finding with respect to divorced nurses being more burned out than all other marital status groups is perhaps more intuitive. This finding suggests that organizations would do well to invest some resources into their divorced personnel to provide them with counseling, as the act of divorce may be exacerbating their response to stressors.

Our findings in terms of the link between burnout and commitment were as expected, with one exception where we found that depersonalization was positively associated with affective commitment. That finding is unexpected, but could be explained by considering that depersonalized people tend to be cynical and emotionally callous to their coworkers – there may be a possibility that depersonalization does not affect one's affective attachment to one's organization. One could therefore feasibly be callous and cynical to one's coworkers and yet be attached to one's organization. However, more research would need to be conducted to see if this result is generalizable.

CONCLUSIONS AND RECOMMENDATIONS

This study found that hospital nurses in Taiwan experience higher levels of reduced personal accomplishment when they were between 35-40 years of age, and found that divorced nurses experience higher levels of depersonalization when compared to every other marital status group. This suggests that hospitals need to pay attention to and allocate resources to help their divorced employees in coping, as our findings suggest that divorced individuals are more susceptible to depersonalization. If such employees are helped by the organization in coping with the aftermath of divorce, it will help reduce depersonalization rates among employees in organizations. In terms of the findings pertinent to age

groups, one possible cause for that could be the additional responsibilities and duties that older nurses may be facing, which may be causing additional stress and thereby contributing to a greater sense of reduced personal accomplishment. We suggest that more research be conducted in order to see whether there is a generalizable trend there in terms of age differences. If there is indeed a generalizable trend in place, then hospitals could concentrate on providing counseling to their personnel in that age group, and also investigating whether that particular group is facing overload.

We found that burnout was positively associated with continuance commitment. While on the surface, that may appear to be a positive outcome, we would caution against it. Continuance commitment does not have the same kind of positive outcomes that affective commitment does, and in some cases organizations who have people that are very high on continuance commitment due to burnout may inadvertently end up with an extremely cynical workforce which does not leave. Then the organization would be stuck with an underperforming workforce which lacks self-efficacy. That is not a desirable outcome for hospitals or indeed organizations of any kind.

Our final recommendation is that more research be conducted to replicate these findings in other contexts. It is possible that our Taiwanese sample differs from other national samples, and it would be prudent to investigate that.

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