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Research Article

Nurses' Burnout and Resilience in Relation to Organizational Factors

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Abstract

Background: Little to no research exists on a relationship between burnout, resilience and organizational work life among Registered Nurses (RNs) who have returned to school to pursue a graduate degree.

Purpose: This study aims to discover if RNs who are returning to school for a graduate degree experience stressors indicative of burnout and/or protective factors associated with resilience.

Methods: Data was collected via an electronic survey of the Maslach Burnout Inventory for Human Services Survey, Areas of Worklife Survey, and Connor-Davidson Resilience Scale.

Results: Increased workload and disconnect between organizational and personal values were associated with increased emotional exhaustion, values and rurality were associated with nurses' increasing depersonalization, and sense of organizational community was associated with resilience.

Discussion: Educators and organizational leaders who are invested in employing advanced practice nurses have a responsibility to provide a work-life balance opportunity for their workforce.

Keywords: Burnout; Emotional exhaustion; Maslach Burnout Inventory; Nursing; Organizational work-life; Resilience; Stress

Introduction

The negative health effects of chronic occupational stress have been extensively reported in the literature [1,2]. It is well documented that increased and more rapid organizational changes are contributing to occupational stress thereby impacting the workforce to a greater degree [3-5]. It is also well-established that the demanding nature of nursing means that nurses experience acute and chronic stressors which can lead to stress and burnout [6-10]. The study of burnout, a specific form of chronic occupational stress in the professional health services, has become of heightened interest in light of the decreasing number of experienced nurses remaining in point-of-care roles [11,12]. A compilation of definitions from Maslach, et al. [13] and Schaufeli, et al. [14] define burnout as a psychological or psychophysical syndrome emerging as a response to chronic interpersonal exhaustion.

Factors that contribute to burnout include moral distress, perception of excessive workload, and other stressors associated with the physical and psychological environment of the workplace [15-17]. The burnout related to workforce transition and turnover for new advanced practice nurses are documented [18]. Burnout among nurses is a problem for healthcare organizations because it can lead to high levels of job dissatisfaction, decreased commitment to the organization, higher absenteeism, and increased turnover and intent to leave [13]. Nurses who experience negative changes to their psychological well-being are more likely to leave nursing positions or reduce their employment fraction, which can have economic repercussions for employers [19]. A significant negative relationship between healthcare provider burnout and quality of care provided to patients has also been reported [19,20].

Contrary to burnout, resilience means to rebound, return from a previous state, or to recover [21]. Resilience allows individuals to mitigate the effects of burnout [22] through external activities such as prayer, physical activity, and problem-solving and internal activities such as adopting cognitive strategies to reframe and mitigate the impact of traumatic experiences [22,23]. Individuals who exhibit resilience were found to have various protective factors, attitudes, or behaviors, which they used as coping strategies to reduce the negative effects of stress [21,24]. Stephens [21] identified that common protective factors including positive emotions, humor, self-efficacy, knowledge of health behaviors and risks, flexibility, competence, strong social support system, faith, optimism/hope, connectedness with caring adults, effective coping, self-knowledge, and perseverance are indicative of higher resilience. Resilience to stress and burnout could be a factor in nurses' decisions to stay in the nursing profession.

Approximately 3.3 million Registered Nurses (RNs) work in the United States with 1.3 million working in hospitals [25,26]. Approximately 43% of RNs experience burnout as measured by the emotional exhaustion scale of the Maslach, et al. [27,28]. RNs reporting burnout also report an intention to change jobs within 12 months, contributing to a shortage of qualified nurses [28]. In addition, in a recent editorial in the American Journal of Nursing, it was reported that most new nurses are planning to obtain advanced degrees and leave hospitals and point-of-care roles within a few years of entering the nursing workforce [29]. Graduate nursing students are practicing nurses who hold a registered nurse's degree and for a number of factors return to academia to obtain an advanced degree. It is estimated that 1.1 million RNs will need to be hired by 2022 in order to maintain appropriate levels of care [30]. Finding strategies to reduce burnout and workforce attrition in both new and experienced nurses could improve the supply of nurses working in healthcare organizations.

Purpose

The literature is saturated with detailed studies on burnout in the nursing profession. What is missing is the differentiation between burnout and resilience among RNs, with a particular emphasis on the areas of their organizational work life. This study aims to discover if RNs self-report stressors indicative of burnout and/or experience protective factors associated with resilience. The research question of this study is what organizational work-life factors affect burnout and resilience among nurses pursuing a graduate degree?

Materials & Methods

The researchers purchased the Maslach Burnout Inventory for Human Services Survey (MBI-HSS) [27], Areas of Worklife Survey (AWS) [31], and Connor-Davidson Resilience Scale (CD-RISC 25) [32]. The MBI-HSS is a 22-question survey that measures job-related feelings on a 7-point Likert scale (0=never to 6=every day) [15]. The 22-questions are comprised of three subscales: emotional exhaustion, depersonalization, and personal accomplishment [15]. The AWS is a supplemental survey to the MBI-HSS, and measures how well individuals' ideals align with those of their work environment [31]. The AWS contains six subcategories of work environment: workload, control, reward, community, fairness, and values [31]. The higher the average score, on a scale of 5, the greater the match between the person and work environment. The CD-RISC 25 measures an individual's level of resilience using 25-questions measured on a 6-point Likert Scale (0=not true at all; 5=true nearly all the time) [32]. The researchers used the Mind Garden website to launch the survey, collect and store the data, and code and aggregate the results.

The dependent variables include resilience and the three indicators of burnout (Emotional exhaustion, depersonalization, and personal accomplishment). The independent variables include the AWS subscales (Workload, control, reward, community, fairness, and values), nurse demographics (Age, gender, years of experience as an RN, length of time in the current position, number of RN positions held, and their role), and worksite characteristics (Urban or rural location of the practice, setting type, area of practice, and number of open positions). A convenience sample of online Master of Science in Nursing (MSN) and Doctor of Nursing Practice (DNP) students at a Midwestern university were surveyed. The link to the survey was distributed electronically through an online platform in which the MSN and DNP students were enrolled. During the students' on-campus orientation days, students were asked to complete the survey during breaks. Ninety-one MSN and DNP students were included in the demographic analysis, two participants did not complete the burnout questions and were excluded, with a final sample size of 89.

Bivariate analysis calculated the mean responses for the dependent variables of burnout, the six variables in the AWS, and resilience. Multivariate linear regression measured the amount of variation in the model when analyzing burnout and resilience associated with the AWS subscales, patient demographics, and hospital characteristics. This study was approved by the authors' organizational IRB.

Results

Descriptive statistics (Table 1) found that 79% of the sample was less than 40 years of age. Majority of the sample was female, had 0-5 years of experience as a nurse, and less than 5 years of experience in their current position. For number of RN positions held, the highest frequency was found among nurses who had held three positions (30.77%) and the lowest frequency was among nurses who had held five or more positions (6.59%). For worksite characteristics, one-third of the sample worked in a rural setting, 86% worked in a hospital, and nearly half worked either in the ICU

or other specialty unit. Approximately 83% worked as a staff nurse and 9% had a manager or supervisory role. Majority of nurses responded that there were four or more open positions on their unit (34.07%); none of the respondents reported zero job openings.

Variable	n	%
Age		
19-29	35	38.46%
30-39	37	40.66%
40-49	15	16.48%
50-59	4	4.40%
Gender		
Male	10	10.99%
Female	81	89.01%
Years as an RN		
0-5	45	49.45%
6-10	26	28.57%
11-15	13	14.29%
16-20	4	4.40%
21+	3	3.30%
Length of time in current position		
0-5	65	71.43%
6-10	21	23.08%
11-15	4	4.40%
15+	1	1.10%
Number of RN positions held		
1	26	28.57%
2	19	20.88%
3	28	30.77%
4	12	13.19%
5+	6	6.59%
Location		
Rural	29	31.87%
Urban	62	68.13%
Work Setting		
Hospital	78	85.71%
Ambulatory care center	4	4.40%
Physician's office	1	1.10%
Long-term care setting	2	2.20%
Home health	2	2.20%
Hospice	2	2.20%
Other	2	2.20%
Area of practice		
Medical/Surgical	14	15.56%
ICU	21	23.33%
ED	14	15.56%
Primary care	0	0.00%
Labor/delivery	3	3.33%
Pediatrics	2	2.22%
PICU/NICU	0	0.00%
LTC	2	2.22%
Other specialty	22	24.44%
Not listed	12	13.33%
Role		
Not listed	7	7.78%
Supervisor	4	4.44%
Shift/Unit manager	4	4.44%
Staff nurse	75	83.33%
Number of open positions on unit		
1	25	27.47%
2	19	20.88%
3	16	17.58%
4+	31	34.07%

Table 1: Demographic Characteristics of the Sample.

Emotional Exhaustion

The mean score for emotional exhaustion was 25.14 (Sd 11.98) on a scale up to 54 (Table 2). This means the study sample is experiencing moderate levels of emotional exhaustion. The model is significant in multivariate linear regression, indicating that the variance can be attributed to the independent variables (R^2: 0.7602, $p<.0001$) (Table 3). The AWS variables, workload and values, were significant indicating that the more dissatisfied or the stronger the

mismatch between the employee and the workload, the more emotional exhaustion the employee reports (p=0.0003). Furthermore, as the alignment between the employee and organizational values widens, emotional exhaustion increases (p=0.0479). Regarding the personal and worksite characteristics, males reported significantly lower scores of emotional exhaustion, nurses practicing in rural areas experienced greater emotional exhaustion, and nurses with 6-10 years of experience expressed greater emotional exhaustion compared to nurses with 15 or more years of experience. Finally, nurses in other specialty positions reported significantly lower emotional exhaustion scores compared to nurses in Medical/Surgical units (p=0.0464).

Variable	N	Mean	Std Dev	Minimum	Maximum
Emotional Exhaustion	89	279.00%	1.33	0	5.7
Depersonalization	89	197.00%	1.5	0	5.6
Personal Accomplishment	89	456.00%	0.85	2.6	6
Workload	89	303.00%	0.78	1	4.6
Control	89	3.49	0.75	1.5	5
Reward	89	344.00%	0.81	1	5
Community	89	391.00%	0.62	2.2	5
Fairness	89	291.00%	0.73	1.3	4.7
Values	89	385.00%	0.76	1.8	5
Emotional Exhaustion Total Score	89	25.15	11.98	0	51
Depersonalization Total Score	89	985.00%	7.51	0	28
Accomplishment Total Score	89	3639.00%	6.73	21	48
Resilience Score	89	8004.00%	10.64	58	100

Table 2: Mean Results for Burnout and Resilience Indicators.

Areas of Worklife	Emotional Exhaustion	Depersonalization	Personal Accomplishment	Resilience
Workload	0.0003	93.91%	0.661	0.6156
Control	0.3288	0.7623	0.6709	0.6839
Reward	0.1651	35.98%	0.5629	0.4098
Community	0.7054	93.48%	0.2711	0.026
Fairness	0.4707	97.17%	0.7776	0.7316
Values	0.0479	0.62%	0.2711	0.7926
*Controlling for patient and worksite characteristics **Detailed results available upon request				

Table 3: Results of Linear Regression.

Depersonalization

The mean response for depersonalization was a 9.85 (Sd 7.51) on a scale up to 28 (Table 2). This means the study sample is experiencing low levels of depersonalization. With multivariate linear regression, 66% of the variation in the model was accounted for by the independent variables (R^2: 0.6567, p=0.0031). Values was significant in this model, which means as dissatisfaction with the alignment of organizational and personal values increases, depersonalization increases (p=0.0062). Practice location was also significant with rural nurses reporting an average of 5 points higher depersonalization scores than urban nurses (Table 3).

Personal Accomplishment

The mean response for personal accomplishment was a 36.39 (Sd 6.73) on a scale up to 48, which means the participants are experiencing high levels of personal accomplishment (Table 2). There were no significant findings for personal accomplishment using multivariate linear regression analysis (Table 3).

Resilience

The mean score for resilience was an 80.04 (Sd 10.64) out of 100 indicating a high level of resilience among the sample (Table 2). Results of multivariate linear regression indicate as a sense of organizational community increased, resilience increased (p=0.0260) (Table 3). No other variables were significantly associated with resilience.

Discussion

Results of this study indicate that registered nurses are experiencing job stressors indicative of burnout and protective factors associated with resilience. In this sample, heavy workload was associated with emotional exhaustion. Pinikahana, et al. [11] found workload to be the greatest stressor among rural psychiatric nurses. Implications include the need to strategize ways to reduce nurses' workload or perceived workload to reduce burnout.

For emotional exhaustion, the current study found significant associations between two predictor variables, mismatched organizational and personal values and rural practice location. Emotional exhaustion was also greater among females, nurses with less experience, and those practicing in medical/surgical units. The literature supports these findings. One study found that lack of autonomy and task orientation, work pressure, and lack of support from supervisors were the main determinants of emotional exhaustion [33]. Another study found that greater nurse manager support resulted in greater compassion satisfaction, which can reduce symptoms of burnout [34]. Kalliath, et al. [35] found that one significant predictor of burnout to be nurses' job satisfaction. Finally, Chang, et al. [36] found that lower burnout levels were associated with great use of coping behaviors and optimism among nurses. The study recommends the inclusion of workplace stress management interventions to reduce burnout [36]. Social support outside of the work setting has also been recommended in the literature as a technique to reduce burnout [37].

For depersonalization, this study found that depersonalization was greater among nurses practicing in rural organizations compared to urban settings and those working in long-term care settings compared to hospital settings. Linear regression also indicates a significant association between values and depersonalization. Rai [38] found that workload, role conflicts, and stress were associated with depersonalization and emotional exhaustion among long-term care staff. To minimize depersonalization in long-term care settings, research suggests implementing strategies that foster staff cohesion, staff acknowledgements, and burnout reduction [39]. Rural practice location was significant in both emotional exhaustion and depersonalization. The workload along with limited staffing and financial resources may serve as an explanation for associations. Further research into this is needed.

Finally, the results of this study indicate protective factors associated with resilience were found among this sample. Nurses who found a sense of community in their organization reported significantly higher resilience scores. This study demonstrates the importance of organizational values and community on reducing stressors indicative of burnout and increasing protective factors associated with resilience. The findings of this study are supported by the literature on resilience among nurses. Rushton et al. [40] found that nurses with greater resilience were protected from emotional exhaustion, which lead to personal accomplishment. Furthermore, spiritual health was found to decrease both emotional exhaustion and depersonalization, while an association existed between physical health and personal accomplishment. Another study linked resilience with job performance [41]. Manomenidis, et al. [42] found that more educated nurses expressed greater resilience since higher education leads to increased worksite autonomy and more decision-making power.

The results of this study indicate that in this sample, risk factors for burnout were high but protective factors were also high. Since our sample contained nurses pursuing advanced practice degrees, these findings suggest that nurses with higher resilience may be motivated to return to school as a manner of coping and planning to change positions or settings within nursing by moving toward advanced practice. This also provokes the question of whether those nurses who are not pursuing higher education have the same or different burnout risk and protective factors.

Limitations

The results of this study represent the experiences of a small subset of the nursing workforce. Only nurses currently enrolled in a single Midwestern University were included in the study. Practicing nurses who have not returned to school may experience different levels of burnout and resilience. Future studies will expand the sample size to this additional group of nurses for comparison purposes and generalizability of results.

Conclusions

By determining what stressors are associated with RN burnout and the positive factors that enable coping strategies associated with resilience, organizations can offer more professional development opportunities and trainings during orientation, continuing education courses, and employee assistance programs to better prepare their RNs and managers to be aware of

the causes of burnout as well as ways to prevent or ameliorate it. The results of these changes could benefit healthcare organizations by informing policy and identifying ways to strengthen our RN workforce, which may facilitate higher productivity and increased quality of patient care.

For academic nursing programs, the significance could be altering the coursework to better meet the psychosocial needs of current and future RNs. Once the factors associated with returning to school are known, universities can enhance their coursework by designing curriculum to address the specific anticipated stressors and indicators of nurse burnout and enhance knowledge of resilience in order to better prepare students for their career in nursing. Nurses who are aware of the potential for and indicators of burnout (Emotional exhaustion, depersonalization, and reduced personal accomplishment) and can identify techniques to solve these problems may be more satisfied in the workplace, which would lead to higher quality of care and nurse retention in organizations.

Future studies will assess burnout and resilience among practicing nurses who are not pursuing higher education. A comparison of burnout and resilience across the nursing workforce will yield more comprehensive results that will allow for a more accurate determination of when and under what organizational situations burnout occurs and what mitigating factors are associated with increased resilience.

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Conflict of Interest

The authors declare no conflict of interest.

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