International Journal of Nursing & Clinical Practices

Research Article Open Access

Stressors in the Working Environment of Registered Nurses

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Abstract

Objective: To provide support for nurse leader interventions that decrease workplace stressors for nurses.
Background: Hospital nursing is highly stressful with persistent, unremitting emotional and physical strain creating unhealthy workplaces threatening the quality and safety of patient care, and decreasing the quality of life and personal health of nurses. Nurse leaders must assess stressors and implement stress reduction strategies to promote nurse personal health.
Methods: The Health and Safety Executive (HSE) 35 item valid and reliable questionnaire was administered to Registered Nurses(RNs) in four hospitals located within Georgia.
Results: RNs (464) reported increased high work demands; new nurses and nurses approaching retirement reported the highest stress perceptions.
Conclusion: Ultimately, hospital administrators must take responsibility to create and foster a practice environment that ensures the health and safety of nurses.

Publication History:

Received: September 29, 2015
Accepted: November 26, 2015
Published: November 28, 2015

Keywords:

Working, Environment, Stressors, Health, Nursing

Introduction

Hospital nursing is highly stressful with persistent, unremitting emotional and physical strain that can create unhealthy workplaces for nurses and threatening the quality and safety of patient care [1,2]. Key factors affecting nurses' overall job satisfaction include workplace culture, quality of care, safety, and environment. Important invisible characteristics include the attitude, values, and behaviors of nurses [3]. Effective teamwork is vital to the delivery of high quality patient care [3]. Kaufman and McCaughan studied teamwork culture and found that effective teamwork is a basic tool when providing good patient care, and recognized overall system malfunctions and errors were decreased in effective teamwork organizations [3]. Perry discovered a positive, beneficial, cyclical relationship between nurse career and patient satisfaction [4]. However, Registered Nurses (RNs) face more challenges than just patient needs; nurses, co-workers, administrative demands, work speed, and unachievable deadlines are major stressors [4]. Forty-nine percent of RNs report verbal abuse, condescending language, and insufficient responses of nurse colleagues most frequent; of those, 50% reported minimal occurrences every three months[5]. Acute care (operating room, emergency room, and critical care) nurses report high levels of verbal abuse from nurse colleagues compared to other units with significant lower levels of autonomy, poor supervisor and mentor support, and reduced workgroup cohesion ($p = .0001$)[6]. Evidence-based identification and plans to address the most common stressors of workplace aggression, incivility, violence, harassment, insults and vulnerability are vital. The purpose of this article is to provide the top RN inpatient workplace stressors and propose stress reduction strategies that allow administrators to enhance nurse satisfaction. This article addresses a synthesis of the literature, project methodology, results, conclusions of a Doctor of Nursing Practice (DNP) Clinical Project, and its implications for nursing.

Literature Review

Quality patient care is negatively associated with nurse stressors such as increased burnout, staff turnover, shift work, long work hours, continuous change, extreme emotional demands [7] and poor morale[8]. Stress reduction and health improvements are vital to quality patient care, nurse job performance and retention, and sick time reduction. The Institute of Medicine (IOM) called for nurse work environment change to meet these needs [9]. Extended work shift hours expose nurses to increased workplace stressors compared to regularly scheduled shifts [10] and an increase in accidents, injuries, and other incidents are associated with long work hours [10-15]. Nurses work 12-hour shifts to provide continuous 24-hour in-patient care creating sleep deprivation and higher stress demands. Consequently, risks for chronic illnesses such as obesity, hypertension, diabetes, and other mental or physical ailments increase [12]. The American Nurses Association (ANA) Health System Reform Agenda highlighted support for quality health care policies to be based on outcomes reflecting the Six Quality of Aims guidelines of the IOM report. By 2017 Medicare reimbursement will be affected by hospital and nurse performance that obtain positive quality patient outcomes [16].

The Centers for Medicaid and Medicaid Services (CMS) [17] examined the increases in health care costs and created the Partnership for Patients initiative that determined new reimbursement methods to improve patient quality and safety and reduces costs[16]. For the first time in US history, hospitals are financially rewarded for achieving improved patient outcomes; links between adherence to shared best practices and evidence from published outcomes data demonstrate increases in patient safety and quality of care. Read mission rates of Medicare recipients within 30 days of discharge is nearly 20% contributing to decreased patient satisfaction and rising healthcare costs [18]. A healthy nurse workforce is directly linked to improved patient outcomes[19]. A reduction in adverse patient events is attributed to the participation, philosophy, staffing of nurses, supportive managers, and mutual relationships between physicians and nurses [20]; nurse work schedules are significantly linked to patient mortality when staffing levels and hospital characteristics were controlled [13]. A significant association between nurse-patient ratios, nurse turnover, and reduction in urinary and surgical site infections resulted in a $68 million saving annually [21]. To increase quality health care, nurses need stress management support; organizations must commit to increasing nurse satisfaction[22].

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Citation: Canady KE, Allen D (2015) Stressors in the Working Environment of Registered Nurses. Int J Nurs Clin Pract 2: 157. doi: http://dx.doi.org/10.15344/2394-4978/2015/157

Nursing shortages and long hours of work result in mental and physical complaints from nurses; complaints of mental stress, mild depression, and anxiety disorders lead to healthcare professional impairments and decreased work performance [13]. The prevalence of mental and physical complaints, and the lack of resources available, requires nurse leaders to be proactive and implement interventions that improve nurse satisfaction and therefore quality patient care. Transformational leaders recognize, appreciate, and compliment nurses on all forms of positive nursing actions and all forms of acknowledgements [23]. Patient safety, in terms of reduced adverse events and complications, increases quality patient care, nurse career satisfaction and safety, decreased job stress and is linked to transformational leaders who advocate for teamwork [19,20]. Transformational nurse leaders must ensure that the work environments limit stressors to allow nurses to do their job effectively. For success, nurses need recognition from superiors when making positive connections with patients to feel that they are thriving and "fall in love with their work" [4]. Therefore, research is vital to identify appropriate frequently reported nurse stressors and implement changes that decease that stress which will improve safe, patient care.

Methodology

Kurt Lewin's change theory was used as the framework of the study due to its change success using three stages: unfreezing (empowerment to relinquish old, counterproductive patterns of behavior), change (thoughts, feelings, and/or behavior changes that produces liberating or productive outcomes), and refreezing (verifying new behavior as standard practice, unyielding, and denies regression to previously flawed methods [24]. The research questions are stated and answered in the "Study Questions Results" section.

Instrument

The Health and Safety Executive (HSE) 35 self-report questionnaire was chosen due to its ability to evaluate work-related stressors. It has six subsets of stressors: demands (8); control (6); support (5); relationships (4); role (5); and change (3) using a 5 point Likert scale to measure stress (0=no stress, 5=extreme stress) with a psychometric reliability Cronbach's alpha of 0.75-0.86[25]. However, only the top stressors reported by nurses within the subsets are discussed in this article.

Participants

Five hospitals with varying demographics were contacted for participation; four agreed to participate and appropriate Institutional Review Boards (IRB) approvals obtained prior to any data collection. These facilities included a: 200 bed level three trauma facility,rural health organization with 125 beds, 300 bed for-profit facility, and 400 bed, level 1 trauma Magnet status hospital increasing generalizability. Seven hundred packets, labeled with a special code for each facility for easy identification, coding, and evaluation, were created and distributed containing a consent form, demographic data sheet, and survey with a target return rate of 50%. Participation was voluntary at each facility and completion of the survey implied consent. After training by the researcher, each hospital assisted with recruitment efforts including presentations to nurse managers and department-based educators; nurse leadership supported, encouraged and enabled staff RN participation. Nurses were given three weeks to complete the survey and return his/her packed to the researcher; 464 were returned (60%).

Data Analysis

Data were entered into the SPSS v21 program as it was received. Once entered, descriptive statistics were used to analyze the demographic and unit specific responses. Logistic regression analysis was used to evaluate the association between each of the 35 items and the various aspects of the psychosocial work environment at a 95% confidence interval. Overall nurse responses, not facility type,nor subsets of the instrument are reported at this time. A one way analysis of variance (ANOVA) was conducted to answer top stressor questionsto control for type I error, Dunnett's C was performed.

Results

Most participants were Caucasian (75%), women (84%), between the ages of 35-54 years (29%), and married (64%). Most nurses were full time employees (79%), 46% were prepared at the baccalaureate level, and 36% had 0-5 years of experience (Table 1).

Demographic Data	n (%)	Total Stress
Gender		
Male	51 (11)	81.190
Female	81.190	84.181
Age in Years		
18- 24 years	66 (14)	83.681
25-34 years	134 (29)	84.470
35-44 years	91 (20)	82.555
45-54 years	92 (20)	83.681
55-64 years	52(12)	83.980
65 years or older	5 (1)	88.400
Marital Status		
Married	285 (64)	83.390
Never Married	86 19)	84.164
Living with Other	19 (5)	85.578
Separated	2 (.5)	98.500
Divorced	45 (10)	83.775
Widowed	3 (.6)	89.000
Ethnicity		
Black	69 (15)	80.260
Caucasian	349(75)	84.390
Hispanic	7 (2)	80.000
Asian	7 (2)	84.166
Indian/other	6 (1)	97.166
Work Status		
Full Time	368 (79)	84.117
Part Time	39 (9)	78.184
PRN	30 (7)	87.900
Highest Level of Education		
Associates Degree	195 (42)	81.107
Bachelor's Degree	216 (47)	84.392
Master's Degree	19 (5)	92.614
Doctoral Degree	7 (2)	82.857
Years in Nursing		
0-5 years	164(36)	84.190
6-10 years	72 (16)	82.333
11-15 years	45 (10)	82.933
16-20 years	59 (13)	82.796
21 or more years	100(21)	84.767

Table 1: Demographic Data.

Study Questions Results

Question 1 asked: "What are the top stressors commonly reported in the working environment of nurses?" The highest three stress scores were work intensely (3.70), have to work fast (3.65), and having a choice in decisions at work (3.20). See Appendix B. The second and third questions were: "What nursing environments are perceived to be the most stressful",and "What type of stressors are most common in those unit specific environments"? Emergency room and medical-surgical floor nurses reported highest stress compared to all departments ($p<.001$); no other reported specific stressors were statistically significant (Table 2). The fourth and fifths questions were: "What type of nurse reports the most stress", and "Do years of nursing experience or educational level affect the number of reported stressors"? MSN prepared RNs (3.83) reported the highest stress, followed by BSN nurses (3.68) and ASN nurses (3.60). The top two stressors were working fast and intensely. The third highest reported stressor for both the ASN (3.29)and BSN (3.23) nurses was "having a choice in decisions I make at work." The MSN (3.27) prepared RN reported the third highest stressor as, "not being able to take sufficient breaks at work."Years of nursing experience affected nurses' stress perceptions with 0-5 years of nursing experience and nurses with 16 or more years of nursing experience reporting highest stress.

#	Question	ICU	ER	OR	Med-Surgical	Other	Cardiology	L&D or Mother/ Baby	Mean for all participants
1	Expectations	1.48	1.58	1.61	1.52	1.54	1.50	1.58	1.54
2	Decide about Break Time	2.31	2.80	2.85	2.47	2.57	2.25	2.54	2.57
3	Different groups demand too much	2.78	3.04	2.50	3.12	2.77	2.63	2.83	2.88
4	Know how to do my job	1.63	1.51	1.50	1.72	1.49	1.50	1.42	1.57
5	Personal harassment of unkind words	1.78	2.11	1.92	2.00	1.80	1.63	1.67	1.91
6	Unachievable deadlines	2.09	2.29	1.93	2.50	2.10	2.00	2.25	2.21
7	Colleagues help me	1.75	1.85	1.78	1.90	1.65	2.00	1.63	1.78
8	Given supportive feedback	2.72	2.72	2.31	2.31	2.35	2.50	2.88	2.50
9	Work intensively	3.71	4.15	3.37	3.90	3.45	3.50	3.60	3.70*
10	Work speed	2.48	2.96	3.08	2.55	2.75	2.50	2.48	2.71
11	Clear of responsibilities	1.72	1.68	1.58	1.71	1.63	2.00	1.71	1.68
12	Neglect task because of too much to do	2.49	2.87	2.20	3.0	2.44	2.90	2.67	2.70
13	Clear about goals of department	1.75	1.92	1.63	1.80	1.70	1.90	2.0	1.8
14	Friction between workers	2.49	2.67	2.73	2.55	2.24	2.25	2.70	2.52
15	Choices	2.32	2.51	2.63	2.34	2.44	2.25	2.50	2.42
16	Unable to take break	2.78	3.31	2.73	3.22	3.22	2.62	2.83	2.95
17	Understand how work fits organization	1.97	2.15	1.68	1.95	1.85	2.00	1.96	1.93
18	Pressure to work late	2.37	2.63	2.36	2.62	2.34	2.89	2.54	2.49
19	Choice in decisions	3.23	3.45	3.22	3.13	3.13	2.63	3.17	3.20
20	Have to work fast	3.43	4.14	3.67	3.71	3.46	3.40	3.38	3.65*
21	Bullying at work	1.48	1.58	1.34	1.54	1.46	1.50	1.33	1.49
22	Unrealistic time pressures	2.31	3.00	2.33	2.84	2.42	2.13	2.53	2.61
23	Rely on manager for help	2.28	2.30	1.79	2.09	2.30	1.88	2.60	2.18
24	Help and support	1.84	1.86	1.78	1.90	1.72	1.90	1.92	1.82
25	Say over how I work	2.30	2.34	2.19	2.27	2.22	2.13	2.30	2.27
26	Questions about changes	2.34	2.53	2.26	2.45	2.33	1.88	2.29	2.38
27	Respect	2.23	2.21	2.16	2.21	2.10	2.50	2.29	2.38
28	Consulted about change	2.97	3.17	3.10	2.98	2.95	2.63	3.13	3.02
29	Talk to manager	2.29	2.17	2.02	2.21	2.25	2.13	2.50	2.22
30	Working time is flexible	2.66	2.71	2.67	2.75	2.57	2.13	2.50	2.66
31	Willing to listen	2.05	2.04	2.05	2.02	2.04	2.00	2.09	2.04
32	Changes affect practice	2.68	2.95	2.60	2.76	2.58	2.25	3.00	2.72
33	Emotionally supported	2.40	2.61	2.36	2.50	2.30	2.50	2.35	2.43
34	Relationships are strained	2.60	2.65	2.71	2.50	2.50	2.40	2.92	2.56
35	Manager encourages me	2.60	2.49	2.08	2.28	2.30	2.00	2.50	2.35

Table 2: Unit specific stress and mean for each individual question.

Discussion

Nurses have numerous demands relating to work-place stressors regardless of identified unit. This study's results support previous studies conducted using the same instrument. When stressors are experienced by nurses, the ability to provide quality health care is diminished. It is interesting to note that while long careered nurses have knowledge to share with the novice nurse, both reported the highest overall stress. The BSN and MSN prepared nurses perceived more stressors compared to Associate or Diploma prepared RNs. It is believed that nurses with higher educational degrees have a higher knowledge base, are able to view the environment in a broader paradigm, havehigher perceptions of professionalism and maturity compared to less educated nurses, have managerial or charge nurse roles, and that ASN nurses are trained to focus on tasks rather than a holistic view of patient care.

Limitations of the Study

The study was successful in finding the most common stressors and the variants among nursing units, degree levels, and years of experience; however, a convenience sample conducted at rural hospitals limits the generalizability to larger, urban hospital settings. Nurses were encouraged to complete the survey while on duty possibly influencing responses. Another limitation is that the HSE questionnaire was designed for factory type workers and has not been assessed within healthcare settings to identify nurse working environment stressors.

Conclusion

Multiple healthcare organizations were used in this study; however, further studies conducted in multifaceted nursing environments are needed. The results of this study demonstrate that RNs experiencemany stressors that affect quality and safe patient care and adds to the literature that nurses in fast paced areas such as the emergency room and medical-surgical units have increased stressors compared to other hospital units; MSN prepared nurses reported higher stress rates than any other degree. Interesting to note is that nurses reporting the highest stress are nurses with more than 21 years of experience, new nurses (0-5 years), and those with higher education degrees. Nurse Manager's mustimprove the psychosocial environment and reduce demands and stressors experienced byRNs. Also, nurse educators must better prepare student nurses for today's ever changing healthcare settings and stressors they may encounter.

Implications for Nursing Practice

Nurses are pivotal in providing health care; however, work-related stressors affect that care. The forecasted shortage may result in even higher physical and mental health nurse risks and vulnerabilities. Transformational leadership decrease exhaustion and increases well-being, job satisfaction, and better job outcomes of nurses[26]. Therefore, healthcare systems must train thesenurse leaders toidentify criticalRN stressors, increase flexibility, stimulate positive ideas within nursing systems, and develop strategies that increasehealthy work environments, job satisfaction,nurse resilience and retention thus reducing staff turnover rates. Implementing targeted, constructive workplace policies that address stressors experienced by nurses affects the organization and the entire nursing profession. Nurses desire a positive, healthy environment where they feel valued through positive policy and procedure changes when necessary.

Dissemination

After analysis, the researcher discussed the findings with the participating agencies in order to assist in determining effective strategies to alleviate or reduce the most common stressors identified in their facilities. Small adjustments and specific stressor protocols development could result in improved satisfaction within each organization and larger changes at the state or even national level. Other venues include oral and/or written presentations at local, regional and national conferences.

Competing Interests

The authors have no competing interests with the work presented in this manuscript.

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