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Perceived Stress Among Nursing and Administration Staff Related to Accreditation

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Abstract

Background—Nurses in hospital administration and management positions may experience workplace stress, which can have important consequences on the health and well-being.

Purpose—The aim of this study was to examine the effects of perceived stress on nursing hospital management and administrative employees of a large health care organization before and after a review by The Joint Commission on the Accreditation of Healthcare Organizations.

Methods—A total of 100 hospital employees were randomly selected to complete questionnaires assessing their perception of stress and its effect on their well-being before and after the site review. They were also asked to rate their subjective experience of sleep, anxiety, depression, and job satisfaction.

Results—Perceived stress was significantly related to employees' increased health concerns, symptoms of depression and anxiety, interpersonal relationships, and job satisfaction ($p = .003$).

Conclusions—Hospital accreditation reviews may increase perceived stress and appears to be related to emotional and physical well-being.

Application—The implications include evidence there is a need for organizations to initiate corrective action to help nurses in administrative roles to cope with increased levels of job strain, minimize potential psychological and physiological consequences, and preserve job satisfaction.

Keywords

Joint Commission; stress; anxiety; accreditation

The National Institute for Occupational Safety and Health (NIOSH) rates stress as one of the 10 leading work-related diseases (Sadri, 1997). Managerial and professional occupations, along with administrative support occupations, accounted for the highest proportion of occupational stress cases surveyed (U.S. Department of Labor, 1999). Furthermore, the effects of stress may build over time, mediated by the employee's perception of job strain (Fuller et al., 2003).

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Consequently, cardiovascular disease, the common cold, cancer, and other signs of immune dysfunction have been associated with elevated levels of perceived stress. Furthermore, work stress has been associated with poor health habits such as smoking, lack of physical exercise, high fat intake, and alcohol abuse (Hellerstedt & Jeffrey, 1997; Taylor, Repetti, & Seeman, 1997), as well as the development of negative affect, such as anxiety, sadness, helplessness, and hopelessness (Hellerstedt & Jeffrey, 1997; O'Leary, 1990; Taylor et al., 1997). Additionally, there is increased job stress that occurs with organizational restructuring, reorganizing, and downsizing, as well as the process of accreditation.

Restructuring associated with hospital mergers has been associated on an international level with negative outcomes for nurses for decades (Brown, Zijlstra, & Lyons, 2006). Furthermore, health care reform has placed emphasis on restructuring, reorganizing, and downsizing, which affects the nursing profession and quality of work life (Davis & Thorburn, 1999). For example, organizational change can result in burnout in nurses, which is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment (Patrick & Lavery, 2007). Additionally, hospital accreditation reviews create a period of extraordinary workload and increased job stress related to the potential outcome of the review.

To maintain and earn accreditation, all health care organizations must undergo an extensive on-site review once every 3 years by a team of health care professionals with the Joint Commission on Accreditation of Healthcare Organizations (Joint Commission). The Joint Commission evaluates the quality and safety of more than 18,000 health care organizations in the United States, and sets the standards by which worldwide health care is measured. The purpose of a Joint Commission review is to evaluate the organization's performance in areas that affect patient care, and to provide education and guidance that will help the staff improve the hospital's performance. Accreditation may be awarded based on how well the organization meets Joint Commission standards and the results of the evaluation are posted on the Joint Commission website for public inspection. Denial of accreditation can result in loss of revenue, loss of jobs, as well as loss of the institution's reputation as a safe and reliable resource for health care (Joint Commission, 2005). For 2008, of the 4,221 hospitals surveyed, less than 1% was denied accreditation. However, 4.6% were given conditional accreditation, with the opportunity to improve their scores (telephone interview with Joint Commission Statistics, October 14, 2009).

The aim of the present observational study was to determine the effects of perceived stress among hospital employees, especially nurses working in hospital administration and management, immediately before a Joint Commission site visit and again during the month following the visit. Although the Joint Commission review is critical to the survival of the health care organization being evaluated, job security of its employees, and the public perception of the institution, few studies have addressed the perception of stress during a Joint Commission site review among nurses, management and administrative personnel. However, researching the effects of a Joint Commission site visit on hospital employees is essential because they are integral to the accomplishment of accreditation and performance improvement. It is also important to study the effects of perceived stress on these workers during times of increased workload and performance pressure to help organizations take corrective action in order to help their employees cope with increased levels of job strain, minimize potential psychological and physiological consequences, and preserve job satisfaction and worker retention.

Method

Participants

Criteria for eligibility included being employed by this hospital in an administrative or supervisory/management position responsible for a successful Joint Commission site visit. The participants had to be age 18 years or older and able to give informed consent for participation in the study. A total of 100 hospital and clinic managers, supervisors, and administrators from a large hospital in central Texas were selected as participants. In all, 80% of those selected were nurses.

Procedure

The employees that were selected for the study received a cover letter explaining the study, an informational form, and the study instruments. Those who wished to participate completed and returned the questionnaire to the principal investigator. Employees who did not complete the survey were sent emails or were contacted by phone to assure that they received the letter explaining the study. Demographic and diagnostic information was recorded from the returned questionnaires and those enrolled in the study were assigned code numbers. Only the code number appeared on the questionnaires. Approximately 1 month after completing the instruments, the participants were contacted again and asked to complete the instruments for a second time.

The survey was designed to explore the subjective experience of stress and its effect on the participants' well-being before and after the Joint Commission visit. The participants were presented with eight items in the pre- and postsurveys to assess their perception of stress and its effect on their well-being. A Likert-type scale was designed to cover such factors as emotions, interpersonal relationships, somatic complaints, and cognitive functioning. The participants were also asked to rate their subjective experience of job satisfaction, overall stress, sleep, anxiety, and depression, and preparation time prior to the visit.

In the previsit survey, the participants were asked to best answer the questions as they related to the anticipated Joint Commission visit. The postvisit survey was sent to the designated participants approximately one month after the Joint Commission site visit.

The Institutional Review Board of a large Central Texas hospital approved this project.

Instruments

The participants were asked to complete a demographic questionnaire, Likert-type scale ratings of perceived stress, a numeric analog scale rating of job satisfaction (Houde, 1982), and questions related to overall health, and overall stress. Additionally, the participants were asked to estimate the approximate amount of time they spent each week on activities in preparation for the Joint Commission visit during the 4 weeks prior to the visit. Four response choices were offered that ranged from two hours or less to 30 hours or more. The participants were also offered a numeric analog scale to measure overall job satisfaction twice: once at the week after the Joint Commission site visit and at 2 months after the visit. The scale ranges from 0 to 10, with 0 representing *not satisfied* and 10 representing *very satisfied*. Other study instruments included the anxiety subscale of the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), and the Medical Outcomes Study (MOS) Sleep Scale (Stewart & Ware, 1992). Total administration time was approximately 20 minutes. The scales were administered twice: the week prior to the Joint Commission site visit and approximately 1 month post site visit.

Measurement of Perceived Stress Ratings

The participants were offered eight items, presented in Likert-type scale format, to explore their perception of stress and its effect in several areas that relate to their well-being. Possible answers included “hardly ever,” “seldom,” “sometimes,” “often,” and “nearly always.” The eight items included perceived emotional stress (three items), perceived stress and somatic symptoms (three items), perceived stress and interpersonal relationships (one item), and perceived stress and cognitive function (one item). The overall score for the perceived stress was calculated by summation of the scores for all eight questions. The items were selected for a high degree of face validity and were developed by an expert in clinical health psychology and agreed on by a panel that included a clinical nurse specialist, a doctoral psychologist, and a biostatistician.

Assessment of Sleep Quality

The MOS (Stewart & Ware, 1992) was used to determine any change in sleep quality. Frequency of sleep problems were rated on an eight-item scale. Constructs related to sleep function explored in this scale are disturbance-initiation, disturbance-maintenance, respiratory problems, adequacy, and somnolence. Participants were asked to estimate how long it usually took them to fall asleep during the past week. They were offered five choices that ranged from 0 to 15 minutes to more than 60 minutes to fall asleep. An additional seven items were offered as a Likert-type scale, with answer options that included “None of the time,” “Little of the time,” “Some of the time,” “A good bit of the time,” “Most of the time,” and “All of the time.” Scoring rules for the MOS Sleep Scale dictate the reversal of Questions 2, 4, 5, 6, 7, and 8. The raw score obtained is then converted to a percentage and scores range from 0 to 100. Higher scores indicate worse function. The scale has been shown to be a reliable and valid measure of sleep quality (Stewart & Ware, 1992).

Measure of Anxiety

The seven-item anxiety subscale from the HADS was used to detect any change in anxiety before and after the site visit. The HADS (Zigmond & Snaith, 1983) is a self-report scale designed to determine the presence of anxiety and depression in a hospital medical outpatient clinic setting. The HADS consisted of seven items, allowing the participant answer options including “Not at all,” “Time to time occasionally,” “A lot of the time,” and “Most of the time.” A total score is calculated to detect the presence of distress in the subject, with higher scores indicating worse functioning. Typically, scores greater than 11 indicated possible anxiety. Internal consistency of the items has been demonstrated (.76, $p < .02$) and the scale has been shown to be a valid measure of anxiety (.74, $p < .001$).

Measurement of Depression

The CES-D was used to determine any change in depression prior to and after the site visit. The CES-D (Radloff, 1977) is a 20-item scale designed to be an easily administered and quick self-report of a participant’s depressive feelings and behaviors during the past week. The participants were asked to rate how they have felt over the past week with choices including, “Rarely or none of the time (<1 day),” “Some or a little of the time (1-2 days),” “Occasionally or a moderate amount of the time (3-4 days),” and “Most or all of the time (5-7 days).” A total score was ascertained by summing all the positive responses. The higher the score, the more likely it is that depression is present. Scores that were greater than 16 indicated possible depression and scores greater than 20 indicated probable depression. This scale has good reliability and validity (Radloff, 1977).

To assess the differences between these scales' means, a multivariate Hotelling's *T* squared test was performed. The test is run on the differences between pre- and postscores to eliminate much of the influence of the unit-to-unit variation.

Results

Of the original identified 100 hospital employees, 63 participants returned the first questionnaire. Those 63 were sent the second questionnaire, and of those, 55 returned the completed survey. The average age of the participant was 47, and 89% of the responses were from nursing administration staff. Furthermore, 70% of the subjects were female and approximately 89% designated their race as Caucasian. A total of 79% were married and 76% had earned a bachelor's degree or higher. When asked to estimate the amount of time spent on activities in preparation for the Joint Commission visit during the 4 weeks prior to the visit, the mean response was approximately 20 hours or less per week. Questions regarding overall job satisfaction and the amount of stress the 4 weeks prior to the Joint Commission visit were significant and are listed in Table 1, along with questions regarding days sick. These results indicated a decrease in stress after the visit as well as a decrease in overall job satisfaction. Also, the perceived stress questions with means and standard deviations are listed in Table 2.

The result of the overall multivariate Hotelling's test was significant at the .05 level with *p*-value of .003. This indicated that there was a significant difference between the pre- and postscale scores on the global multivariate level when the difference between pre- and postscores was compared with the zero vector. To assess the levels of significance for each individual scale, univariate *F* tests were performed. The results from the tests indicated high significance at the .05 level for the difference between pre- and postscores for all four scales. The *p*-values were .001, .035, .046, and .000 for HADS, CES-D, MOS, and Perceived Stress, respectively. The means and standard deviations are presented in Table 3.

Discussion

The present study provides evidence that nurses in administrative roles experience increased stress associated with a Joint Commission site visit. This study also suggests the increased stress may be significantly related to increased psychosomatic health problems, symptoms of depression and anxiety, interpersonal relationships, and decreased job satisfaction. These are important considerations that have implications for health, job strain, and the need for resources to cope with increased stress during the Joint Commission site visit process. The duration of the stressors involved in the site visit may also be a contributing factor in perceived stress. For example, although the visit itself only lasts a short time, the preparation for the visit lasts for weeks or even months. Accordingly, examining the interaction of acute stress and chronic stress would provide greater depth of knowledge about the effect of perceived stress on nursing and administrative staff.

This study highlights the elevated stress levels during a Joint Commission review and the pervasive effects of stress on well-being. However, it should be noted that the participants in this study were not assessed for premorbid functioning prior to the receipt of the presurvey questionnaire. The alterations due to the effects of stress may be greater in premorbidly distressed individuals in comparison with healthy participants (O'Leary, 1990). Also, the physiological effects of stress were not measured. The present study used self-report instruments which could be confounded by external influences not assessed by this questionnaire. In addition, it is not known if the participants had previously taken part in a Joint Commission site review. It is reasonable to expect that an individual's first time

participating in the Joint Commission review process as a manager or administrator could be more highly stressful.

Future research in this area should include both subjective and objective measurements of stress and the addition of an appropriate comparison group and the evaluation of the effect of interventions to moderate stress. Also, future research should include more long-term follow-up assessment of perceived stress, as well as mental and physical functioning with a diverse population. This would allow greater knowledge about the degree to which the stress experienced during a Joint Commission site visit exceeds normal stress levels associated with an employee's regular duties, and the duration of the effects of the stress on physical and emotional functioning.

Application

The sample for this study primarily included nurses. Therefore, this study has important implications for nurses, especially in managerial positions. The results of the present study provides evidence that the review process significantly affects levels of perceived stress, as well as symptoms of anxiety, depression, and sleep function. Furthermore, overall job satisfaction decreased after the visit even though the stress on the job decreased. These results are consistent with research that demonstrates the negative effects of acute stressors on health and well-being. The effect of perceived stress during Joint Commission should be recognized and interventions to help minimize these stresses should be integrated into the process. In addition, future research should also address the impact of perceived stress on other hospital duties while preparing for accreditation such as the continuity and quality of patient care during the preparation process.

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Table 1
General Information on Sickness, Stress, and Job Satisfaction

General Information	<i>M (SD)</i>		<i>p</i> -Value *
	Pretest	Posttest	
Days missed due to sickness in the past 4 weeks	0.39 (2.01)	0.27 (0.94)	.708
Days felt sick but worked anyway in the past 4 weeks	2.24 (4.09)	1.71 (2.35)	.362
Stress faced on job during past 4 weeks	8.24 (1.39)	6.15 (1.83)	.000 *
Overall job satisfaction	8.17 (1.06)	7.52 (1.44)	.002 *

*
 $p < .01$.

Table 2
Perceived Stress Questions Means and Standard Deviations

Perceived Stress Likert-Type Scales	<i>M (SD)</i>	
	Pretest	Posttest
Perceived emotional stress		
I have recently felt that I am not entirely myself due to stress on the job	1.90 (1.02)	1.23 (0.91)
I have noticed myself lashing out at others due to stress	1.31 (1.18)	0.84 (0.99)
I have felt uneasy or irritable lately	2.02 (1.16)	1.25 (1.18)
Perceived stress and somatic symptoms		
I have had more frequent stomach upsets lately	1.32 (0.99)	0.80 (0.90)
I have had difficulty sleeping	1.82 (1.02)	1.13 (0.97)
I have been having headaches recently	1.16 (1.07)	0.77 (0.89)
Perceived stress and interpersonal relationships		
I have had arguments with my spouse/partner recently	1.63 (1.24)	1.09 (0.96)
Perceived stress and cognitive function		
I have been forgetting things more than usual	1.85 (1.16)	1.12 (0.99)

Table 3
Pretesting and Posttesting Results From the Hotelling Analysis on the Four Scales of Interest

Instruments	<i>M (SD)</i>		<i>p</i> -Value ^a
	Pretest	Posttest	
Perceived Stress Questionnaire	12.63 (6.32)	8.32 (6.07)	.000 ^a
HADS Anxiety Subscale	8.69 (3.69)	6.38 (2.95)	.001 ^a
CES-D Depression Scale	12.62 (12.25)	7.18 (8.32)	.035 ^a
Sleep Function	60.34 (10.88)	63.70 (10.04)	.046 ^a

Note. HADS = Hospital Anxiety and Depression Scale; CES-D = Center for Epidemiological Studies Depression Scale.

^aThe *p*-values in this table correspond to the univariate *p*-values obtained after performing the multivariate Hotelling analysis ($p = .003$).