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The Consequences of Nursing Stress and Need for Integrated Solutions

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Abstract

Purpose—In a 2011 survey sponsored by the American Nurses Association (ANA), nurses identified the acute and chronic effects of stress and overwork as one of their two top safety and health concerns.

Design/Methods—A review of the literature was conducted to investigate the impact that job stress has on the health and safety of nursing professionals and the role that working conditions and job characteristics play in fostering job stress.

Findings—Strong evidence supporting links between job stress, safety and health in general and within different types of nursing populations exists. Working conditions also contribute to the development of job stress.

Conclusion—Combining and integrating “person-focused” strategies designed to build nurses’ ability to manage stress at the individual level with “organization-focused” strategies that eliminate stressful working conditions is critical to the reduction and prevention of job stress among nursing professionals.

Keywords

Job stress; literature review; nurses; organization-focused stress prevention strategies; person-focused stress prevention strategies; psychosocial issues

Introduction

In an age of increasing demand for health care and of better recognition that providing assistance to the ill and injured can take enormous emotional and physical tolls on caregivers, the importance of preserving the health and safety of caregivers of all types is rapidly gaining attention. Identifying strategies for protecting those who work with the chronically ill and/or physically disabled may be particularly critical. Rehabilitation nurses, who are charged with helping to restore the functioning of the chronically ill and physically disabled through developing holistic treatment plans, providing education on health and disability issues to patients and their families, and/or conveying information about

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community and other resources to achieve this goal (Hoeman, 2002; Association of Rehabilitation Nurses, 2005), certainly fall into this category. Whether working with patients over the short or long term, the demands associated with delivering services to this unique patient population are not insignificant. In many instances, a rehabilitation nurse may need to be a constant source of both emotional and practical support to patients and families, often traveling a very difficult road to recovery with them.

To navigate this road effectively, health and wellness are essential. The delivery of quality services is inextricably linked to the occupational safety and health of healthcare providers and therefore cannot be considered in isolation (Freshwater & Cahill, 2010). When providers are not well, this may lead to a deterioration in the quantity and quality of patient care (Michie & Williams, 2003). For instance, an increased risk of errors that compromise nurse and patient safety can be an unfortunate outcome of nurse fatigue (e.g., Lorenz, 2008). On the other hand, when providers are healthy, they may become more productive. Healthy nurses may be more efficient in their healthcare delivery (Freshwater & Cahill, 2010), which may ultimately translate into better patient outcomes.

There are many barriers to achieving or maintaining good health for those working in the nursing profession. The purpose of this article is to bring attention to job stress *per se* as one such roadblock. It will provide an overview of job stress and how it affects health and safety followed by a review of existing studies that have examined the link between job stress and health. The role that working conditions and job characteristics play in fostering job stress will also be discussed. In conclusion, the article will describe the importance of combining and integrating “person-focused” strategies designed to build nurses’ ability to manage stress at the individual level with “organization-focused” strategies that eliminate stressful working conditions.

Stress in the Nursing Profession

Certain occupations are believed to be significantly more stressful than others, and nursing in general is widely regarded as one such profession (Albrecht, 1982; Maloney, 1982; Selye, 1976). Over the last decade, nurses have been consistently found to report the highest levels of job stress of all healthcare professionals (Bourbonnais, Comeau, Vézina & Guylaine, 1998; Butterworth, Carson, Jeacock, White & Clements, 1999; Ilan, Durukan, Taner, Maral & Bumin, 2007; Piko, 2006; Wu, Zhu, Wang, Wang & Lan, 2007). In a 2002 survey, over 60% of nurses agreed that stress was a significant issue in their work lives, and in a 2004 survey, 55% of respondents expressed the same view (Buerhaus, Donelan, Ulrich, Norman & Dittus, 2006). In a 2011 survey sponsored by the American Nurses Association (ANA), nurses identified the acute and chronic effects of stress and overwork as one of their two top safety and health concerns (ANA, 2011), which is consistent with findings of a similar survey sponsored by the ANA nearly a decade earlier (ANA, 2001).

Impact of Job Stress on Health and Safety

Nurses’ concern with the impact stress has on their health is a valid one. Job stress, defined by National Institute for Occupational Safety and Health (NIOSH) as “the harmful physical and emotional responses that occur when the requirements of the job do not match the

capabilities, resources, or needs of the worker” (NIOSH, 1999), triggers a reaction in the body typically referred to as the “fight-or-flight” response. The fight-or-flight response, which prepares the body to survive a perceived external threat, is associated with a number of physiological changes that are produced by the sympathetic nervous and adrenal-cortical systems (Friedman & Silver, 2007). Activation of these systems releases various hormones into the body, causing – among other things – increases in heart rate, blood pressure, and blood-glucose levels, blood vessel constriction, and a shutdown of the digestion and immune systems (Bracha, Ralston, Matsukawa, Williams & Bracha, 2004).

If these changes in the body are short-lived and/or are infrequent, the body faces little risk (NIOSH, 1999). However, repeated activation of the sympathetic nervous and adrenal-cortical systems due to frequent or chronic episodes of job stress can produce a wide variety of acute symptoms and can even contribute to the development of chronic health conditions (e.g., NIOSH, 1999; Selye, 1976).

It is well established that job stress can lead to poor health, injury, and reduced well-being (e.g., Caplan, Cobb, French, Van Harrison & Pinneau, 1980; House, 1981; Jordan et al., 2003; Leigh & Schnall, 2000; Noblet & LaMontagne, 2006; Pelletier et al., 1999). Mood and sleep disturbances, upset stomach, headaches, and disrupted familial relationships are common early signs of job stress (Caufield, Chang, Dollard & Elshaug, 2004; Crouter & Bumpus, 2001; NIOSH, 1999). Further, chronic or long-term exposure to stress at work has been associated with high blood pressure and cholesterol levels (Goodspeed & DeLucia, 1990), cardiovascular disease (Belkic, Landsbergis, Schnall & Baker, 2004; Guimont et al., 2006; Kivimaki, Kalimo & Lindstrom, 1994; Sauter, Hurrell & Cooper, 1999), infectious and autoimmune diseases (Brunner, 2000), anxiety and depression (Bildt & Michelsen, 2002; Landsbergis, Schnall, Deitz, Friedman & Pickering, 1992; Rugulies, Aust & Syme, 2004), accidents (Schnall, Belkic & Pickering, 2000), and musculoskeletal injury (Bongers, de Winter, Kompier & Hildebrandt, 1993; Hartvigsen, Lings, Leboeuf-Yde & Bakketeig, 2004; Hoogendoorn, van Poppel, Bongers, Koes & Bouter, 2000; Hoogendoorn et al., 2002). Further, an emerging literature suggests that job stress exerts an influence on individual health behaviors such as smoking, alcohol consumption, and level of physical activity (Albertson, 2006; Brisson, 2000; Wemme & Rosvall, 2005).

The consequences of job stress have been widely reported for nurses specifically. Within this working population, job stress has been associated with decreased job satisfaction (Blegen, 1993), increased psychological distress (e.g., Shapiro, Astin, Bishop & Cordova, 2005), physical complaints (Hillhouse & Adler, 1997; Marshall & Barnett, 1993), and absenteeism (Borda & Norman, 1997). Depression, sleep problems, feelings of inadequacy, self-doubt, lowered self-esteem, irritability, and somatic disturbance among nurses have also been reported as stress-related outcomes (Chiriboga & Bailey, 1986; Denton & Widenbaker, 1977; Durkis, 1982; Glaser & Strauss, 1965; Larson, 1987; Martin, 1982; Maslach, 1976). Further, job stress is believed to contribute to disproportionately high rates of general illness, increased incidence of psychiatric outpatient consultation, and psychiatric admissions in this working population (Cherniss, 1980; Metules & Bolanger, 2000).

Conceptualized by Maslach and Jackson (1986) as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment, burnout is a common and widely studied consequence of chronic job stress (Spickard, Gabbe & Christensen, 2002). It is commonly associated with psychological distress and somatic complaints (Chiriboga & Bailey, 1986; Duquette, Kerouac, Sandhu & Beaudet, 1994; Easterburg, Williamson, Gorsuch & Ridley, 1994) and a wide range of problematic individual health behaviors. For example, nurses experiencing burnout have been found to eat poorly, smoke cigarettes, and abuse alcohol and drugs – all of which can lead to poor health and diminished personal well-being (Burke, 2000).

Although individual (e.g., personality characteristics) and situational (e.g., existence of a strong familial support system) factors do influence whether an individual experiences his/her job as stressful, working conditions and job characteristics often play a primary role in producing job stress. For example, workload, the manner in which job tasks are designed, the amount of control one has over how tasks are completed, degree of social support from supervisor or coworkers, intrinsic and extrinsic rewards, the presence of various types of discrimination and harassment, the adequacy of staffing, downsizing, other institutional changes, and so forth all play a role in determining the extent to which a work environment is perceived as stressful (Bond et al., 2008).

There is a wealth of literature documenting the exposure that nurses and other healthcare professionals have to very stressful working conditions (Rodwell, Noblet, Demir & Steane, 2009). Nurses are subjected to numerous on-the-job demands that can foster extraordinary levels of stress. Not only are they required to manage numerous physical requirements, but they contend with the emotional demands associated with having contact with suffering and dying people (McNeely, 2005). In addition, they are often required to work long hours and in shifts and may have disproportionate levels of skills and/or social support relative to workload (Demerouti, Bakker, Nachreiner & Schaufeli, 2000; Freshwater & Cahill, 2010; Guppy & Gutteridge, 1991; Hipwell, Tyler & Wilson, 1989; Jennings, 2007; Ogus, 1992; Orpen, 1990).

Approaches to Job Stress Reduction

Although a fair amount of work has been carried out to identify and control the physical risks associated with nursing work, such as manual handling, ergonomics, chemical hazards, and biological hazards, there has been disproportionately less progress with regard to developing and implementing evidence-based programs to prevent or reduce job stress experienced by nurses. Targeted interventions to reduce stress are needed to protect or preserve the health and safety of nurses and to ensure safe, efficient, and quality patient care (Caufield et al., 2004; McVicar, 2003).

In recent years, scholars and experts have strongly advocated the notion that job stress interventions should combine stress prevention and management for individuals with strategies designed to reduce or eliminate stressful working conditions to which these individuals are exposed (e.g., McVicar, 2003). Semmer (2006) concluded from his review of job stress interventions that “a combination of person-focused and organization-focused

approaches is the most promising...” compared with either alone. Further, Lamontagne, Keegel, Louie, Ostry and Landsbergis (2007) reviewed a number of studies that evaluated person-focused, organization-focused, and a combination of both types of interventions and wrote that “our findings affirm individually-directed as an essential complement to organizationally-directed interventions....” They also concluded that “there is great potential for improving worker health through integrated approaches.”

Although an integration of person-focused and organization-focused approach is advocated by scholars to prevent and reduce job stress, employers of all types have typically provided only person-focused interventions to employees (Sauter et al., 1999). Stress management programs are based on ideas underlying Lazarus’ transactional model of stress (Lazarus & Launier, 1978), which has been one of the most widely applied job stress theories (Lehrer & Woolfolk, 1993; Rick & Perrew, 1995). Within this paradigm, stress is determined by both an individual’s perception of the demands being made on them and their perception of their ability to meet those demands (Russler, 1991). A mismatch between these perceptions may create a stress reaction or a “fight-or-flight” response (Clancy & McVicar, 2002).

It follows, then, that stress management programs are designed to build employees’ capacity to cognitively and behaviorally manage stress. This involves efforts to help employees either modify or control their appraisal of stressful situations or to more effectively manage reactions to stressful conditions (Murphy, 1996). Stress management programs are often designed to educate employees about the relationship between stress and health and to teach skills that are useful for identifying and managing symptoms of stress. Examples of some of the skills taught include muscle relaxation, meditation, biofeedback, and assorted cognitive strategies (Grant, 1993).

A number of studies have evaluated stress management programs (Murphy, 1995), and these studies clearly support the efficacy of various types of these programs in reducing psychophysiological and self-reported signs of stress (Murphy, 1996). The programs have been found to produce positive changes physically, mentally, and emotionally for a number of working populations (Benson, Klemchuk & Graham, 1974; Deckro et al., 2002; Mandel, Jacobs, Arcari & Domar, 1996).

Although there has been a proliferation of stress management programs, many of them tend to be quite generic. Because nursing itself and work environments in which it occurs are highly unique and complex, programs customized for nurses and – in some cases – by nursing specialty may be required. Using a participatory approach in which job stress practitioners and managers work collaboratively with nurses, program content that is directly relevant to and applicable to the specific work environment, interpersonal issues, and job characteristics/tasks they encounter can be developed, implemented, and evaluated. Customized programs that provide nurses with stress prevention and reduction strategies that are practical for on and off the job use may have the best potential for positively impacting their health and well-being.

In contrast to stress management programs, the goal of organization-focused interventions is to control stress through reducing or eliminating stressful working conditions (Rosch &

Pelletier, 1989). Examples of these interventions include job redesign, developing clear job descriptions, forming joint employee and management committees to increase worker involvement, and increasing employee participation in decision-making (Murphy, 1999).

Available evidence indicates that organization-focused interventions can be effective provided that stressful working conditions have been properly identified and that the interventions have been designed and implemented accordingly (Semmer, 2006). Some studies have found that organization-focused interventions have resulted in improved organizational outcomes (e.g., reduced absenteeism and improved workplace morale). For example, Nielsen, Kristensen and Smith-Hansen (2002) found that employers who did the most to improve their work environments achieved significant reductions in absence rates.

Like stress management programs, organization-focused interventions should be customized according to work setting. Management may work with job stress practitioners to diagnose organizational and work-unit-level conditions that contribute to nursing stress. Once properly diagnosed, approaches to counter or eliminate these conditions altogether may be developed. Such interventions may target staffing ratios, adjust working hours or shifts, incorporate rest breaks, provide a more optimal balance to workload, and so forth.

Integrating, Implementing, and Evaluating Integrated Interventions

If integrated, person-focused and organization-focused interventions can potentially be effective in reducing or eliminating job stress for rehabilitation and other nurses of other specialties. As described, each approach has advantages, with person-focused interventions producing a stronger, positive impact on individual outcomes and organization-focused interventions having a stronger, positive impact on organizational outcomes.

How can managers and/or occupational safety and health professionals (e.g., employee assistance program providers, other clinicians, consultants, and researchers with job stress expertise) develop and put integrated interventions into practice? When stress is a suspected problem in rehabilitation nursing environments as evidenced by low morale, health complaints among employees, and job turnover, they may first take steps to identify the various contributors to the problem. This may include organizing group discussions among managers, labor representatives, and employees to gather information on job conditions and perceived levels of stress, health, and satisfaction.

The findings collected from these discussions may be used to design surveys to collect additional information from employees, if needed. Information about absenteeism, illness, turnover rates, or performance problems can also be collected by reviewing an organization's records to assess the presence and scope of job stress. Whether collecting information solely from group discussions, surveys, or existing records, managers and/or occupational safety and health professionals should compile, summarize, and analyze these data to identify the potential causes of stress, including job conditions.

After the sources of stress at work have been identified and the scope of the problem has been assessed, a strategy for creating and implementing an integrated person-focused and organization-focused intervention may be established. The integrated intervention should

appropriately target sources of stress for change. The plan for implementing the intervention should be communicated to employees.

To determine whether the implemented intervention is effective and producing changes in the appropriate direction, an evaluation of it is needed. Short- and long-term evaluations of the intervention should be conducted. Short-term evaluations can be conducted on a quarterly basis to identify any need for redirection. Long-term evaluations can be conducted annually to determine whether the integrated intervention is producing lasting effects. Short- and long-term evaluations should collect the same types of information that had been extracted through the group discussions, surveys, and company records. In other words, evaluations should be conducted to assess changes in employee perceptions of working conditions, levels of perceived stress, health problems, satisfaction, productivity, and absenteeism.

Conclusion

Job stress is a major barrier to the attainment of safety, health and wellness among nurses including those working in the rehabilitation nursing specialty area. To effectively address this problem, managers and occupational safety and health professionals can develop, implement, and evaluate integrated job stress interventions targeted to the special needs of nurses and their particular work settings. This will facilitate the goal of better caring for these caregivers, which will become even more important as the need for quality health care rises in the years to come.

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Key Practice Points

- Low morale, high turnover, and high rates of health complaints among employees may signify that job stress is a problem in a healthcare organization.
- Management, with the assistance of occupational safety and health professionals with expertise in job stress, may assess the extent and sources of job stress through focus groups, surveys and other methods.
- With employee participation, management and occupational safety and health professionals may design and integrate person- and organization-focused intervention strategies to reduce job stress in the organization.