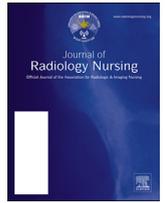




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Stress, Fatigue, and Burnout in Nursing



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A B S T R A C T

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The purpose of raising awareness about the topics of stress, fatigue, and nurse burnout is twofold: (1) to recognize it exists and (2) to explore the options for mitigation strategies. The profession of nursing is prone to experience stress due to the intense nature of the work. Immense pressures from both internal and external sources add to the complexity of nearly every professional role in nursing. Recognizing and addressing the potentially negative impact of stress and the signs of overwork is imperative so stress, fatigue and burnout are not the result. A more intentional approach to nursing work relative to the thoughtful design of systems, forming efficient work processes, attaining more reasonable workloads, and establishing boundaries for work-life balance are key attributes for success. Care and compassion are foundational to nursing practice. However, caring for oneself to be at their best to care for others is rarely a priority in today's world. Nurses must especially be mindful of the consequences of their work, must strive to lead healthy lives, and be an example for those they may have the privilege to lead in health-care organizations and others.

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Introduction

Caring for others, especially in the nursing profession, has long been associated with stress. It is well known that nurses work in challenging circumstances and conditions. Pressures related to time, the pace of work, long hours, measured performance expectations, transparency of clinical outcomes, an aging workforce, and the boon of available information via technology has compounded abundant systematic challenges in recent years. With just over \$3.3 trillion spent on health-care expenditures tallied in 2016, the health-care industry is a big business and continues to grow ([Center for Medicare and Medicaid Services, 2017](#)).

[Blevins \(1994\)](#) described the role of a radiology nurse as one who has a high level of knowledge, clinical expertise, and independence performing routine clinical skills. They also were known to use specialized clinical knowledge for assessment and monitoring. Today, the role is coupled with massive data collection, technological advancements, vast information available to patients via the internet, and time-limited patient encounters to maximize productivity.

Particular stressors for nurses choosing to practice in radiologic modalities are somewhat unique. They include scheduling

pressures, sequenced procedures that may exceed the allotted time causing unplanned delays to subsequent cases, and the possibility of sicker patients to experience a sudden change in condition. In addition, the pressing need to stay updated about ever-changing technology, volume increases potentiating extended hours of work, shortages of qualified personnel, and more were evidenced in the depiction of the importance of nurses practicing in their bevy of imaging services by University of California, San Francisco ([UCSF Department of Radiology & Biomedical Imaging, 2017](#)).

Debate about which specialty practice in nursing experiences the most stress is commonplace among nurses. However, nothing in the literature supports one specialty over another as truly being more stressful. Each specialty area provides unique challenges on a daily basis, which are just different. All nursing care and the level of compassion required with dedicated knowledge in each clinical specialty can produce stressful work.

The study of stress began in the mid-1930s with Dr. Hans Selye (1956), who first identified stress as a concept. He dedicated his life's work for decades to study the ability of the human body to adapt to stressful conditions. His research suggested that people could in fact tolerate stress, and it may be helpful in certain situations, such as a fight or flight response. Many others have since followed to continue the exploration of the potential benefits and consequences of stress.

Numerous studies show that stress has escalated in intensity for most types of US workers over the last several decades ([The American Institute of Stress, 2018](#)). More recently, deliberations

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about stress being highly personalized with a wide variation between individuals and circumstances have surfaced. The severity of stress perceived depends on the magnitude of the demands and an individual's sense of control or decision-making latitude as described by [The American Institute Of Stress \(2018\)](#).

The cost of job stress in the United States alone has been estimated to be well over \$300 billion per year due to absenteeism; turnover; diminished productivity; and medical, legal, and insurance costs ([Nguyen, 2016](#)). In addition, health-care costs associated with workplace stress alone are estimated to be over \$190 billion ([Blanding, 2015](#)). Stress is known to have a cause-and-effect relationship, with physical and mental conditions being the result. The estimated costs related to stress are striking, and it is clear that the relationship to work is taking a toll.

Fatigue and burnout

Unfortunately, much of the information in the literature about the connections of stress, fatigue, and burnout relative to nursing and others' work is not new. The term burnout was first coined in the 1970s by [Freudenberger \(1974\)](#) to describe changes in mood, attitude, motivation, and personality noted in his work in a free medical clinic. Today, the most widely used definition of burnout has been that of [Maslach and Jackson \(1981\)](#) describing a phenomenon of emotional exhaustion, depersonalization, and reduced personal accomplishment. More contemporary definitions now include the addition of engagement.

In a subsequent landmark study to Maslach and Jackson's definition, researchers [Schaufeli and Van Dierendonck \(1993\)](#) defined burnout as a vague syndrome evidenced by more than 100 symptoms. Most nurses have likely felt a large number of the 100 symptoms from their intense work. In particular, nursing, unlike others' work, can produce various effects associated with emotional, mental, physical, and spiritual fatigue resulting solely from the multifaceted nature and intensity of the practice of professional nursing.

Stress typically varies daily with workload, interactions with a multitude of people, and the physical environment of practice. Fatigue can also be potentiated by life factors that may also fuel the potential to progress to burnout. Furthermore, the cycle of stress, fatigue, and burnout can be insidious. Way before one realizes they are suffering negative effects of stress and fatigue, they may be well on their way to burnout.

Burnout and safety

In the February *Perspectives on Safety* (2016), Lyndon posited a link between burnout in health-care professionals and safety. She described how emotional exhaustion, cynical detachment, and physical fatigue affect caregivers' ability to feel, potentiating a threat to health-care quality and patient safety. She also suggested it is not just a single professional discipline—up to one-half of all medical providers cited in a 2015 study by the Mayo clinic, in conjunction with the American Medical Association, are feeling the effects of burnout.

Five years before, nurse researcher Nuria O'Mahony (2011) described the significance of burnout in nurses to include low morale; increased absenteeism from sickness; decreased effectiveness and productivity; poor job performance and patient care; and higher staff turnover. Depersonalization can be damaging for relationships between all types of caregivers and patients, and the effects of burnout may impair cognitive functions, placing patients at a risk for harm ([Lyndon, 2016](#)). The majority of care providers never intend to ever harm a patient, but a lack of attention may result in inadvertent negative consequences.

Table 1
Health-promoting behaviors

Intervention	Implementation
Practicing mindfulness	Consider encompassing awareness and presence in the moment.
Mindset shift	Think differently about stress, such as the opposite, to what you initially feel from the stressor (view the upside of stress).
Practicing meditation	Embrace stillness and focus to allow the brain to achieve a state of calm.
Decreasing conflict	Assess for conflict in systems and between individuals.
Using rest periods	Recover and recharge both mentally and physically.
Getting adequate sleep	Make an effort to get the recommended 7-9 hours of sleep per night for ideal health.
Healthy diet and exercise	Take time to plan for both improved mental and physical condition.
Listen to the body	Often nurses are so busy that they don't stop to take time for themselves and/or to follow their instincts.
Take time to think	Patients get better care if there is less rushing and more thinking throughout the process.
Use positive psychology principles	Clarify values, define meaningful work, and set clear goals for what one expects from their life.

Nurses must begin to put themselves first, by making self-care a priority, to better care for others. They must also recognize when other members of the care team are at risk and speak up for patient safety. The time is now as the health-care system of the future continues to evolve in what most hope will be an improved system.

A contrarian's view

A shift in mindset about stress could yield the following possibilities: What if awareness could be raised about the negative outcomes of stress in health-care workers? Could strategic interventions be deployed to mitigate the effects of stress for all types of caregivers on the health-care team? Could stress actually be harnessed to elevate engagement and improve performance? There are some who think so.

Dr. Kelly McGonigal, who is a lecturer in Organizational Behavior at Stanford University's Graduate School of Business, thinks so in her book titled *The Upside of Stress* ([McGonigal, 2015](#)), in which she described how a change in mindset may change everything. She posited stress may actually be good for us. If nurses began to think differently about stress and its relationship to their work, could it truly impact their own well-being? Could positive self-care behaviors become accepted and commonplace to make a difference in organizational outcomes?

[Bullock \(2017\)](#) suggested from two recent health studies that mindfulness may provide a solid solution for the effects of stressful work. Both studies showed how learning and practicing mindfulness, meditation, and being present were shown to relieve anxiety, exhaustion, and depressive symptoms related to work stressors. In addition, the studies showed improvements in various aspects of health which are related to conditions affecting sleep, interpersonal relationships, and diagnostic measures secondary to stress hormones.

A call to action

Nurses must think about what they need to do their best work and then ask for it in the environments in which they practice.

Decreasing environmental stressors and building the skills of resilience (facilitated by a change in mindset) must become a priority. The process could begin just as the nursing process does, with an assessment of the environment and causes of stress. Creative interventions could then be designed and deployed to mitigate the causes of stress. Lessons learned could be shared about how best to deal with it when tested ideas show actual applicability and stress reduction.

Understanding stress is crucial to learn how to think differently about it. It is inextricably linked to a cause-and-effect relationship (stressor and response). Also, learning to accept what one can and cannot control may reduce the stress response, which begins the cycle of negative mental rumination resulting in stress, fatigue, and the potential for burnout. Optimal well-being is a delicate balance between the external and internal environment and how a person responds to perceived stress.

Strategies to improve nurses' overall health and well-being from an individual self-care perspective could include those listed in Table 1.

From an organizational perspective, it is imperative that the health-care industry of the future works to simplify long-standing and complicated systems, listen to what customers say they need and want, design and refine systems to be more customer-focused and friendly, continually strive to improve team dynamics with multidisciplinary approaches to achieve better overall outcomes.

Conclusion

The world is moving faster with a constant flow of information. There is little downtime coupled with technology, which can lead to feelings of being overwhelmed at times. Self-care and what that means for each individual must become vitally important. Necessary conversations about the effects of work in the health-care industry are needed and just now becoming more predominant. It is well understood that the possibility exists between role-related implications and stress-laden work, so both individuals and organizations must take ownership to promulgate health and well-being.

In a 2015 National Nursing Workforce study, there were approximately 3 million nurses; the largest group (~70%) of registered nurses responding to the survey was older than 40 years (National Council of State Boards of Nursing, 2018). This survey highlights the number of nurses approaching midlife and midcareer where self-care becomes even more crucial for peak performance. As one ages, health considerations seem to surface, taking the center stage, and it can become even more challenging to maintain a balance for adequate well-being.

Job projections in the health-care industry are predicted to grow by 11.5 million workers (United States Bureau of Labor Statistics, 2017). The dangers of stress, fatigue, and burnout must be decreased for those entering the health-care industry. Formal training related to the consequences of stress should be considered for those already practicing in the industry, as well as programmatic additions for those learning health-care professions. Students must be alert to the professional risks related to stress and health.

Nurses can be leaders for themselves, their teams, and for patients. A change in thinking and the ability to harness stressful conditions for good may improve their current work environments. Nurses must speak up and speak out about the consequences of unresolved stress, fatigue, and burnout in their daily work. The health-care system of the future depends on an adequate supply of healthy nurses.

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