

Position Statement

Addressing Nurse Fatigue to Promote Safety and Health: Joint Responsibilities of Registered Nurses and Employers to Reduce Risks

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Revised By:	Professional Issues Panel on Nurse Fatigue
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Supersedes:	<i>ANA Position Statement (2006): Assuring Patient Safety: The Employers' Role in Promoting Healthy Nursing Work Hours for Registered Nurses in All Roles and Settings.</i> <i>ANA Position Statement (2006): Assuring Patient Safety: Registered Nurses' Responsibility in All Roles and Settings to Guard Against Working When Fatigued.</i>

Purpose: This statement articulates the American Nurses Association's (ANA) position with regard to the joint responsibilities of registered nurses and employers to reduce risks from nurse fatigue and to create and sustain a culture of safety, a healthy work environment, and a work-life balance. Both registered nurses and employers have an ethical responsibility to carefully consider the need for adequate rest and sleep when deciding whether to offer or accept work assignments, including on-call, voluntary, or mandatory overtime.

Statement of ANA Position: Registered nurses and employers in all care settings must collaborate to reduce the risks of nurse fatigue and sleepiness associated with shift work and long work hours. Evidence-based strategies must be implemented to proactively address nurse fatigue and sleepiness; to promote the health, safety, and wellness of registered nurses; and to ensure optimal patient outcomes.

This document, although written specifically for registered nurses and employers, is also relevant to other health care providers and stakeholders who collaborate to create and sustain a safe and healthy interprofessional work environment. Stakeholders who have a contractual relationship with the worksite and who influence work hours also have a responsibility to address risks.

Background

Inadequate sleep and resulting fatigue can affect a registered nurse's ability to deliver optimal patient care (Landrigan et al., 2004; Rogers, Hwang, Scott, Aiken, & Dinges, 2004; Scott, Rogers, Hwang, & Zhang, 2006; Trinkoff et al., 2011). Fatigue is linked to several types of performance deficits, including an increased risk of errors; a decline in short-term and working memory; a reduced ability to learn; a negative impact on divergent thinking, innovation, and insight; increased risk-taking behavior; and impaired mood and communication skills (Durmer & Dinges, 2005; Goel, Rao, Durmer, & Dinges, 2009; Killgore, Grugle, & Balkin, 2012; Pilcher et al., 2007; Venkatraman, Chuah, Huettel, & Chee, 2007). In addition, fatigued and sleep-deprived nurses are more likely to report clinical decision regret, which occurs when their behaviors do not align with professional nursing practice standards or expectations (Scott, Arslanian-Engoren, & Engoren, 2014).

In addition to its association with increased risk for errors and reduced job performance, fatigue has major implications on the health and safety of registered nurses. Substantial scientific evidence links shift work and long working hours to sleep disturbances, injuries, musculoskeletal disorders, gastrointestinal problems, mood disorders, obesity, diabetes mellitus, metabolic syndrome, cardiovascular disease, cancer, and adverse reproductive outcomes (Antunes, Levandovski, Dantas, Caumo, & Hidalgo, 2010; Brown et al., 2010; Bushnell, Colombi, Caruso, & Tak, 2010; Carayan, Smith, & Haimes, 1999; Caruso, Hitchcock, Dick, Russo, & Schmit, 2004; Caruso & Waters, 2008; Charles et al., 2012; Drake, Roehrs, Richardson, Walsh, & Roth, 2004; Folkard & Lombardi, 2006; Frazier & Grainger, 2003; Geiger-Brown et al., 2012; Kleppa, Sanne, & Tell, 2008; Knauth, 2007; Knutsson & Boggild, 2010; Lawson et al., 2009, 2011; Mozurkewich, Luke, Avni, & Wolf, 2000; Pan, Schernhammer, Sun & Hu, 2011; Pilcher, Lambert, & Huffcutt, 2000; Puttonen, Harma, & Hublin, 2010; Rocheleau, Lawson, Whelan, & Rich-Edwards, 2012; Rohr, Von Essen, & Farr, 2003; Shechter, James, & Boivin, 2008; Straif et al., 2007; Suwazono et al., 2006, 2007; Virtanen et al., 2012; Whelan et al., 2007).

Shift work and long work hours are also important risk factors for drowsy driving (Swanson, Drake, & Arnedt, 2012). Drowsy driving crashes show high risk for serious injuries and fatalities, and such crashes endanger the lives of the driver and other people on the road (Centers for Disease Control and Prevention, 2014; Pack et al., 1995). Furthermore, multiple studies have found that the performance of a person awake for 17 or more hours resembles that of someone with alcohol intoxication (Dawson & Reid, 1997; Falleti, Maruff, Collie, Darby, & McStephen, 2003; Howard et al., 2007; Williamson & Feyer, 2000; Yegneswaran & Shapiro, 2007).

In addition to health and safety risks, the effects of fatigue and sleepiness have financial ramifications. Direct costs to employers include increases in health care costs, workers' compensation costs, early disability costs, recruitment and training

costs, and legal fees (*Jacobs v. Pacific Transport Services*, 2010; *Estate of Marthe v. Trotter*, 1999; Rosekind et al., 2010; Tüchsen, Christensen, Lund, & Feveile, 2008).

Joint Responsibilities of Registered Nurses and Employers

Ongoing collaboration between registered nurses and employers is required to reduce the risks of nurse fatigue and sleepiness. As written in the *AACN Standards for Establishing and Sustaining Healthy Work Environments*, “in true collaboration the unique knowledge and abilities of each professional are respected to achieve safe, quality care for patients. Skilled communication, trust, knowledge, shared responsibility, mutual respect, optimism and coordination are integral to successful collaboration” (American Association of Critical-Care Nurses [AACN], 2005).

Nursing services are needed 24 hours a day, seven days a week in some health care settings. In such organizations, registered nurses and employers must recognize the challenges faced from disruptions to normal human physiology that are caused by night and irregular work hours; both must adopt evidence-based strategies to reduce the associated health and safety risks (The Joint Commission 2011, 2012). It is also imperative that organizations establish an evidence-based staffing plan to address registered nurse responsibilities in extreme or unusual situations, such as natural disasters, when nurses and employers are at risk of being pushed beyond their physical capacity.

The Institute of Medicine recommends that registered nurses not exceed 12 hours of work in a 24-hour period and 60 total hours of work within seven days (Institute of Medicine of the National Academies [IOM], 2004). However, scientific research suggests that working more than 40 hours a week adversely affects patient safety and the health of registered nurses (Bae & Fabry, 2014; Bannai & Tamakoshi, 2014; Caruso et al., 2004; Rogers, et al., 2004; van der Hulst, 2003). Therefore, ANA recommends that registered nurses not exceed 40 hours of professional nursing work (paid or unpaid) in a seven-day period.

Responsibilities of Registered Nurses

As advocates for health and safety, registered nurses are accountable for their practice and have an ethical responsibility to address fatigue and sleepiness in the workplace that may result in harm and prevent optimal patient care.

The registered nurse is responsible for practicing healthy behaviors that reduce the risk for working while fatigued or sleepy, for arriving at work alert and well rested, and for promoting a safe commute to and from work. During work shifts, nurses are responsible for taking meal and rest breaks and for implementing fatigue countermeasures to maintain alertness. Recognizing that healthy work environments are sustained through communication and collaboration, registered nurses should

initiate discussions when a colleague seems compromised as a result of fatigue (AACN, 2005).

Registered nurses are responsible for negotiating or even rejecting a work assignment that compromises the availability of sufficient time for sleep and recovery from work. The amount of recovery time necessary depends on the amount of work, including regularly scheduled shifts and mandatory or voluntary overtime.

Additional Recommendations for Registered Nurses

Registered nurses are responsible for implementing evidence-based fatigue countermeasures and personal strategies to reduce the risks of fatigue. ANA recommends implementation of the following strategies:

1. Sleep 7–9 hours within a 24-hour period (National Sleep Foundation, n.d.), and consider implementing the following strategies to improve quality of sleep:
 - a. Adjust the sleep environment so it is conducive to sleep (i.e., very dark, comfortable, quiet, and cool in temperature) (National Heart, Lung, and Blood Institute, 2011).
 - b. Remove distractions, bright lights, and electronics from your sleep environment (such as television, tablets, cell phones, computers) (National Heart, Lung, and Blood Institute, 2011).
2. Rest before a shift in order to avoid coming to work fatigued.
3. Be aware of side effects of over-the-counter and prescription medications because they may impair alertness and performance (Smolensky, Di Milia, Ohayon, & Philip, 2011).
4. Improve overall personal health and wellness through stress management, nutrition, and frequent exercise.
5. Use related benefits and services offered by employers, such as wellness programs, education and training sessions, worksite fitness centers, and designated rest areas.
6. Take scheduled meals and breaks during the work shift.
7. Use naps (in accordance with workplace policies).
8. Follow established policies, and use existing reporting systems to provide information about accidents, errors, and near misses.
9. Follow steps to ensure safety while driving:
 - a. Recognize the warning signs of drowsy driving (National Sleep Foundation, 2014). Stop driving when drowsy; instead, use public transportation or call a taxi, friend, or family member for a ride. If necessary, sleep at an alternate site close to work.
 - b. Use naps, caffeine, or both as appropriate in order to be alert enough to drive.
 - c. Avoid driving after even small amounts of alcohol when sleep deprived (Howard et al., 2007).

- d. Importantly, note that the actions people often take when struggling with drowsy driving (such as putting windows down, pinching themselves, turning up the radio) do not work (Vanlaar, Simpson, Mayhew, & Robertson, 2008).
10. Consider the length of a commute prior to applying for employment.
11. Prior to accepting a position, consider the employer's demonstrated commitment to establishing a culture of safety and to reducing occupational hazards, including nurse fatigue.

If fatigue or other adverse health symptoms continue despite implementing countermeasures, registered nurses should consult a health care provider because shift work and long work hours are associated with a wide range of health risks. If necessary, registered a nurse should seek a schedule that is a better fit for his or her needs by negotiating with the employer or by seeking other employment if negotiation is not possible.

Responsibilities of Employers

Employers of registered nurses are responsible for establishing a culture of safety, a healthy work environment; and for implementing evidence-based policies, procedures, and strategies that promote healthy nursing work schedules and that improve alertness. Employers should adopt, as official policy, the position that registered nurses have the right to accept or reject a work assignment on the basis of preventing risks from fatigue. Safe levels of staffing are also essential to providing optimal patient care and ensuring a safer environment for patients and registered nurses (AACN, 2005; ANA, 2012).

As referenced previously, data suggest that registered nurses should limit the number of consecutive shifts and should not work more than 40 hours in a seven-day period. In addition, employers should limit shifts (including mandatory training and meetings) to a maximum of 12 hours in 24 hours (IOM, 2004). Those limitations include on-call hours worked in addition to actual work hours.

Employers should conduct regular audits to ensure scheduling policies are maintained. Employers have a duty to ensure that nurses are able to take meal and rest breaks during work shifts. Furthermore, employers should facilitate the use of naps during scheduled breaks, as the benefits of napping during long shifts are well supported by research (Daurat & Foret, 2004; Morgenthaler et al., 2007; Ruggiero & Redeker, 2014; Sack et al., 2007; Takahashi, Arito, & Fukuda, 1999; Takahashi, Fukuda, et al., 1999).

Promoting a culture of safety and a healthy work environment reduces the risk for job stress and the potential for negative outcomes associated with fatigue. Registered nurses should be discouraged from working extra shifts or working overtime that may contribute to fatigue. Every registered nurse, if asked, should be able to decline working extra shifts or overtime without being penalized.

Additional Recommendations for Employers

Employers are responsible for providing fair compensation, establishing a culture of safety, and implementing evidence-based policies and procedures to address nurse fatigue. When employers recognize the complexity of the current work environment and the demands of patient care, they should shift workplace policies and the design of scheduling practices to align with research and evidence-based recommendations.

According to the evidence presented earlier, ANA recommends implementation of the following strategies:

1. Eliminate the use of mandatory overtime as a staffing solution.
2. Have employers adopt—as official policy—the position that registered nurses have the right to accept or reject a work assignment on the basis of preventing risks from fatigue, that such rejection does not constitute patient abandonment, and that registered nurses should not suffer adverse consequences in retaliation for rejecting in good faith a work assignment on the basis of preventing risks from fatigue.
 - a. Employers should have a system in place for evaluating instances of registered nurses rejecting assignments so employers can evaluate causes and effectiveness of staffing patterns.
3. Institute an anonymous reporting system for employees so they can give information about their accidents, errors, and near misses.
 - a. In incident investigations, include factors that increase the risk for fatigue-related errors so employers can determine if fatigue was a contributing factor.
 - b. Develop a system for corrective actions and continuous improvement.
4. Institute policies that address the design of work schedules, such as limits on overtime; actions to take when a worker is too fatigued to work; and policies and procedures during emergencies caused by weather and major disasters, when a large influx of patients may unexpectedly arrive at the health care organization.
5. Design schedules according to evidence-based recommendations (Bae & Fabry, 2014; Caruso & Rosa, 2012; IOM, 2004; Knauth & Hornberger, 2003; Lerman et al., 2012; Monk, 2000; Rosa & Colligan, 1997).
 - a. Involve nurses in the design of work schedules in order to accommodate competing personal responsibilities, capabilities, and resources.
 - b. Use a regular and predictable schedule so the nurse can plan for work and personal responsibilities.
 - c. Review the benefits and risks of varying shift lengths, including economic risks and benefits.
 - d. Examine work demands with respect to shift length. Shifts longer than 8 hours may be unsafe when work is physically and cognitively demanding.

- e. Make arrangements to relieve a registered nurse who has been called in during the off shift and who is scheduled to work the following shift so that nurse can acquire adequate rest.
 - f. Coordinate the number of on-call shifts assigned in a seven-day period with the number of sustained work hours to allow for an adequate rest period.
 - g. Limit work weeks to 40 hours or fewer per week.
 - h. Limit shifts to 12 hours or fewer.
 - i. Keep consecutive night shifts to a minimum for rotating shifts.
 - j. Promote frequent, uninterrupted rest breaks during work shifts. Frequent brief rest breaks (i.e., every 2 hours) during demanding work are more effective against fatigue than a few longer breaks. Allow longer breaks for meals.
 - k. Establish at least 10 consecutive hours per day of protected time off duty in order for nurses to obtain 7–9 hours of sleep.
 - l. Plan one or two full days off of rest to follow five consecutive 8-hour shifts or four 10-hour shifts. Consider two rest days after three consecutive 12-hour shifts, and consider limiting the number of consecutive 12-hour shifts to three shifts.
6. Reduce risks of drowsy driving by providing transportation home when a nurse is too tired to drive safely or by providing sleeping rooms close to the health care facility.
 7. Promote fatigue management training and education for employees and managers, including education about sleep disorders.

Summary of Relevant ANA Publications and Initiatives

Code of Ethics for Nurses

The Code of Ethics for Nurses (the Code) makes explicit the primary goals, values, and obligations of the profession. ANA believes that the Code is nonnegotiable and that each nurse has an obligation to uphold and adhere to its ethical precepts.

Four provisions within the Code speak to the obligation of registered nurses to act in a manner that is consistent with maintaining patient and personal safety:

- Provision 2: The nurse's primary commitment is to the patient, whether an individual, family, group, or community.
- Provision 3: The nurse promotes, advocates for, and strives to protect the health, safety, and rights of the patient.
- Provision 4: The nurse is responsible and accountable for individual nursing practice and determines the appropriate delegation of tasks consistent with the nurse's obligation to provide optimum patient care.

- Provision 6: The nurse participates in establishing, maintaining, and improving health care environments and conditions of employment conducive to the provision of quality health care and consistent with the values of the profession through individual and collective action.

ANA's Principles for Nurse Staffing

This document addresses the need for adequate staffing in relation to the provision of safe, quality nursing care. The principles state that safe care delivery can best be attained through appropriate staffing levels to ensure the safety of staff and patients. The *ANA's Principles for Nurse Staffing* also categorizes the major elements needed to achieve optimal staffing. Those principles apply to all types of nurse staffing at every practice level and in any health care or practice setting. The principles are grounded in the substantive body of research that demonstrates the link between adequate nurse staffing and improved patient outcomes. This evidence has shown that nursing care has a direct effect on the overall quality of services received and that adverse events decline and overall outcomes improve with appropriate staffing (ANA, 2012).

HealthyNurse™ Initiative

The *HealthyNurse™* initiative provides nurses with resources to guide them toward improved health, safety, and wellness. ANA defines a healthy nurse as one who actively focuses on creating and maintaining a balance and synergy of physical, intellectual, emotional, social, spiritual, personal, and professional well-being. Healthy nurses each live life to the fullest capacity, across the wellness and illness continuum, as they become stronger role models, advocates, and educators—personally—for their families, for their communities and work environments, and ultimately for their patients (ANA, 2014).

Definitions

For purposes of this document, the following definitions are used:

- **Culture of safety:** Core values and behaviors resulting from a collective and sustained commitment by employers and health care workers to emphasize safety over competing goals.
- **Fatigue:** Impaired function resulting from physical labor or mental exertion. This position statement refers to three types of fatigue: physiological (reduced physical capacity), objective (reduced productivity), and subjective (weary or unmotivated feeling).
- **Fatigue countermeasures:** A range of evidence-based strategies aimed at either temporarily reducing or counteracting the effects of fatigue or sleepiness. Examples are the strategic (therapeutic) use of caffeine or naps and the combination of caffeine and naps to temporarily increase alertness.

- **Mandatory overtime:** Employer-mandated work hours beyond normally scheduled or contracted hours in a day or week, including required work over 40 hours in any seven-day period.
- **Sleepiness:** The increased propensity to fall asleep. In contrast to fatigue, sleepiness is specifically due to imbalance in sleep and wake time, disrupted circadian rhythms, or inadequate quantity and quality of sleep. Fatigue may or may not result from impaired sleep, but both are often grouped together as a chief complaint of feeling tired or exhausted and of needing to rest or sleep.
- **Stakeholders:** Departments, organizations, unions, individuals, families, communities, and populations that can affect or be affected by any policy, guideline, or change in a process that is implemented.
- **Voluntary overtime:** Work hours above and beyond the routinely recognized hours for the workweek without undue pressure from the management.

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