



## American Academy of Nursing on Policy

# Position statement: Reducing fatigue associated with sleep deficiency and work hours in nurses



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The American Academy of Nursing promotes management practices in health care organizations and strategies in the nurse's personal life to support sleep health in nurses and, as a result, an alert nursing workforce fit to perform their jobs and more able to live healthy lives. Society requires critical nursing services around the clock. Consequently, shift work and long work hours are common in health care organizations and negatively affect a significant percent of nurses. Working at night and irregular hours compromise human physiology dictated by the need for sleep and circadian rhythms. The challenge that nurses on shift work face is the need to work at night (when our physiology promotes sleep) and sleep during the day (when our physiology promotes activity). When shift work combines with long work hours (e.g., shifts of 12 hr or more) and leads to sleep deficiency or disruption to circadian rhythms, the health and safety costs of this conflict with human physiology are potentially significant. Sleep deficiency is a broad term that includes inadequate sleep duration, poor sleep quality, untreated sleep disorders, and mistimed sleep that is not synchronized with circadian rhythms. Sleep deficiency can affect nurses' work readiness and health, safety, and well-being. Evidence is building that long shifts, shift rotations, double shifts, evening, and night shifts are associated with multiple short- and long-term health and safety risks to the nurse (National Institute for Occupational Safety and Health [NIOSH]; NIOSH, Caruso, Geiger-Brown, Takahashi, Trinkoff, & Nakata, 2015). Tired nurses are also at risk for making fatigue-related patient care errors that can endanger their patients (Bae & Fabry, 2014). These risks also extend to the nurse's family, their employer/health care organization, and the broader society when tired nurses make errors at work and home or crash their

vehicle due to drowsy driving. This complex hazard requires a variety of personal, workplace, and public health strategies to reduce these risks. Unfortunately, persons working in health care organizations may not fully understand the health and safety risks that are associated with fatigue and may be unaware of evidence-based strategies to reduce these risks. Yet evidence shows that it is possible to limit or modify the adverse impact of shift work and long work hours on nurses by improving their sleep and reducing fatigue.

This position statement is consistent with three of the academy's strategic goals (American Academy of Nursing, 2017). (a) Influence the development and implementation of policy that improves the health of populations and achieves health equity. (b) Influence practice design through nursing science to improve the health of populations. (c) Position the academy and nursing profession to lead change and drive policy and practice to improve health and health care. These efforts will impact the nursing workforce as well as the patient population and the broad range of other people whom nurses interact with at work, home, and during their commutes. Several studies report that nurses working shift work and long work hours are at risk for making errors in the delivery of patient care (Bae & Fabry, 2014). According to the AAA Foundation for Traffic Safety (Tefft, 2016), the risk of vehicle crashes shows a dose–response relationship with sleep duration: less than 4 hr sleep in past 24 hr increases risk of a crash 11.5 times; 4 to 5 hr of sleep increases risk 4.3 times; 5 to 6 hr of sleep increases risk 1.9 times; and 6 to 7 hr of sleep increases risk 1.3 times. RAND reports that insufficient sleep could cost the overall U.S. economy upward of \$411 billion annually (2.28% of its gross domestic product) due to a range of negative impacts, reduced productivity, and loss of 1.2 million working

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days per year (Hafner, Stepanek, Taylor, Troxel, & Van Stolk, 2016).

A growing number of organizations recognize the broad health and safety risks that are linked to shift work, long work hours, and worker fatigue, and are working toward reducing these risks. Governmental agencies, professional and public service organizations, and safety professionals across several industries are working on this critical topic.

Governmental efforts include work by the NIOSH of the Centers for Disease Control and Prevention. NIOSH has a long-standing commitment to reducing the risks from these demanding work hours through research, guidance, and authoritative recommendations, strategic partnerships, and dissemination of information to protect workers and their families, employers, and the community (NIOSH, 2017).

For nurses, NIOSH developed an online continuing education program, NIOSH training for nurses on shift work and long work hours (NOSH et al., 2015). This training relays the risks, the reasons why these occur, and gives strategies for nurses and their managers to reduce these risks. Other governmental efforts include 20 U.S. states that prohibit or restrict mandatory overtime in nurses (American Nurses Association [ANA], 2011). Another example is the U.S. Army Medicine Performance Triad (U.S. Army Medicine, 2016), which aims to improve soldier readiness, increase their resilience, and promote their health. The Performance Triad focuses on three behaviors: (a) get quality sleep; (b) engage in activity; and (c) improve nutrition. An additional example is the federal hours of service regulations for the transportation modes and nuclear power plants. These have been in place for many years to reduce the risk to the public when tired commercial vehicle drivers or workers in nuclear power plants make mistakes that endanger the public.

Several professional and public service organizations as well as safety professionals have initiatives designed to address this hazard. The ANA has been active on this topic. In 2014, ANA released their revised position statement on nurse fatigue that promotes evidence-based strategies to prevent nurse fatigue and sleepiness, promote the health, safety, and wellness of registered nurses, and ensure optimal patient outcomes (ANA, 2014). Recently, ANA began an initiative, *Healthy Nurse Healthy Nation*, which includes promoting sleep health and preventing fatigue (ANA, 2016). The Pan American Health Organization/World Health Organization published the updated National Institute of Health National Heart Lung and Blood Institute Su Corazon/Su Vida training manual with the first ever session on sleep disorders and sleep health promotion to train Spanish-speaking promotores, nurses, and other health care providers about the relationships between sleep and health (Baldwin, 2014). Recently, the National Safety Council (2017) began a new initiative to reduce the broad risks associated with fatigue and inadequate sleep. They are addressing personal health and safety as well as risks at home, at work, and on the

roads. Safety and health professionals across many industries are incorporating fatigue risk management systems in their operations (Lerman et al., 2012). These comprehensive systems include seven elements: management policies; addressing vulnerable areas and establishing controls; reporting systems for employees; incident investigation; training for employees and managers; sleep disorder management; and a system of corrective actions and continuous improvement.

The American Academy of Nursing recognizes that safe nursing practice requires health care providers obtaining sleep that is of high quality and adequate duration. Nurse fatigue poses a danger to patients because of increased risk of error, other people on the roads when tired nurses commute to and from work, and the health and safety of nurses themselves. Managers and nurses share in the responsibility of reducing the risks linked to poor sleep health and fatigue. Managers are responsible for using evidence-based practices in the design of their employees' work schedules and for establishing policies, programs, practices, and systems at work that promote sleep health and an alert workforce. Nurses are responsible for allowing enough time for sleep, adopting evidence-based personal practices and behaviors to maximize sleep and alertness, and educating the important people in their lives to reduce conflicting demands from work and personal responsibilities. The American Academy of Nursing supports initiatives by health care organizations, individual nurses, and public health and governmental agencies to develop strategies that improve the sleep health of nurses. This will help ensure that nurses are fit to provide excellent patient care around the clock as well as help nurses maintain their own health, safety, and sense of well-being. The American Academy of Nursing recommends the following actions.

- Urge nurses and employers of health care organizations to educate themselves about the health risks linked to shift work and long work hours and the evidence-based strategies to reduce those risks.
- Urge employers of health care organizations to incorporate evidence-based practices in the design of their employees' work schedules and establish policies, programs, practices, and systems at work that promote sleep health and an alert workforce.
- Urge employers to promote a workplace culture that promotes sleep health to achieve optimum functioning, health, safety, and sense of well-being of their workforce.
- Encourage employers to recognize the role of shift work, long shifts, and nurse fatigue on turnover, absenteeism, patient safety, and related costs.
- Urge experts to develop additional continuing education courses for nurses and nursing managers that relay evidence-based personal practices and workplace interventions to maximize sleep health and alertness in nurses.

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