Nurse fatigue: Short on sleep, short on safety
Shift work, organizational barriers, and nurse preferences continue to challenge nurse wellness.

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Healthcare operates 24 hours a day, 7 days a week. To meet patient demands and ensure optimal outcomes, no rest for the weary is common, and shift work (including long shifts, rotating shifts, double shifts, and evening and night shifts) can result in nurse health and safety risks. To further complicate matters, some nurses maintain second jobs, potentially leading to even greater risk. Lack of sleep, caused by extended work hours and circadian rhythm misalignment, increases the risk of car accidents, patient care errors, and health issues such as obesity, heart disease, and hypertension. Solutions supported by research must be promoted by healthcare organizations to address the issue of fatigue and ensure nurse wellness and patient safety.

Shift work and nurse fatigue
The U.S. Occupational Safety & Health Administration (OSHA) describes a normal work shift as “a work period of no more than 8 consecutive hours during the day, 5 days a week with at least an 8-hour rest.” Nurses whose work environment demands 12-hour shifts are working what OSHA describes as an extended or unusual shift that “incorporates more continuous hours, requires more consecutive days of work, or requires work during the evening.” These shifts may be more mentally, physically, and emotionally taxing to employees, leading to increased fatigue, stress, and lack of concentration, which in turn may result in a heightened risk of error, injuries, and accidents. To put this into perspective, Petrov and colleagues equated the traditional night-shift schedule of two or three sequential 12-hour shifts from 7 PM to 7 AM followed by 2 to 5 days off to the jet lag experienced when flying roundtrip from San Francisco to Tokyo every few days.

What does this mean for nurses required to work 12-hour shifts? A study conducted by Rogers and colleagues concluded that work duration, overtime, and the number of hours worked per week significantly impact errors made by nursing staff. The authors made a bold statement: “Routine use of 12-hour shifts should be curtailed and overtime, especially that associated with 12-hour shifts, should be eliminated.” A systematic review by Di Muzio and colleagues concluded that adverse event frequency increases when nurses work on an inadequately staffed unit and then work more than 12 hours in a shift and more than 40 hours in a week. They also found that nurses who work night or rotating shifts, compared to their peers who work day or evening shifts, struggle to stay awake and are twice as likely to make a mistake. Despite this evidence, most nurses who provide direct patient care continue to work 12-hour shifts and experience fatigue.

Recommendations
In response to fatigue research, The Joint Commission issued a Sentinel Event Alert in
2011, acknowledging the evidence-based relationship between extended work hours and worker fatigue, decreased productivity, compromised patient safety, and increased risk to personal safety and well-being. (See 7 strategies to reduce fatigue risks.) In addition, the American Nurses Association (ANA) has acknowledged nurse fatigue as a workplace hazard and launched several initiatives.

Call for action
In 2014, ANA assembled a Professional Issues Panel charged with developing a position statement and calling on employers and employees to embrace their ethical responsibility to ensure personal wellness, including the need for adequate rest and sleep. The statement calls on employers to design evidence-based staffing schedules; for example, nurses should work no more than 40 hours within a 7-day work period. And The Joint Commission recommends that employers address nurses’ responsibilities in extreme or unusual circumstances that may push them beyond their physical capabilities.

Training
ANA’s position statement also emphasizes the importance of promoting fatigue management training and education. The Joint Commission also recommends educating staff; topics include sleep hygiene (getting enough sleep, taking naps, creating a relaxing nighttime routine, and avoiding food or drink that may affect sleep) and the effects of fatigue on patient safety. This important step empowers managers and nurses with the knowledge necessary to successfully navigate the dangers of fatigue and provides opportunities for open dialogue about fatigue risks. When nurses take advantage of this training, they’re following Provision 5 of the ANA Code of Ethics for Nurses with Interpretive Statements and providing themselves with the same care they do patients. (See Stay accountable to yourself.)

Healthy Nurse, Healthy Nation™
The ANA Enterprise Healthy Nurse, Healthy Nation Grand Challenge (healthynurse-healthynation.org), launched in 2017, aims to improve the nation’s health by supporting nurses as they pursue their personal wellness. Adequate rest is key to that effort. The nurses who face the greatest challenge to wellness and quality sleep are those who staff the night shift. Evidence-based tips for night nurses are seemingly as elusive as the sleep they need, but some best practices do exist. (See Sleep tips for night nurses.)

7 strategies to reduce fatigue risks
The Joint Commission offers the following evidence-based strategies that organizations can implement to decrease fatigue risks.

1. Review staffing policies to ensure equitable distribution of off-shift hours and consecutive shifts.
2. Address patient safety by appraising the hand-off policy and procedure.
3. Involve staff when designing work schedules.
4. Implement a fatigue management plan that includes strategies such as physical activity, caffeine use, and naps.
5. Educate staff about sleep hygiene and the impact of employee fatigue on patient safety.
6. Generate a culture of safety that promotes teamwork, encourages staff to express concerns about fatigue, and reviews adverse events.
7. Provide adequate facilities and measures (such as a cool, dark, quiet, comfortable room, eye masks, and earplugs) that promote quality sleep during breaks.

Stay accountable to yourself
The American Nurses Association Code of Ethics for Nurses with Interpretive Statements acknowledges that nurses are ethically accountable to themselves, the public, and employers. Nurses’ responsibilities to themselves related to sleep include the following:

• Secure 7 to 9 hours of undistracted sleep each 24-hour period.
• Rest before arriving to work, if needed.
• Acknowledge the side effects of over-the-counter and prescription medications that may impair performance and alertness.
• Implement stress-management tools, healthy nutrition, and physical activity to improve overall health.
• Take advantage of employee wellness programs.
• Don’t skip scheduled meals and breaks while working.
• Take naps according to workplace policy.
• Follow employer policies to report accidents, errors, and near misses.
• Follow the rules of the road when driving, learn to recognize signs of drowsy driving, and use naps and/or caffeine to reduce drowsiness during the commute.
• Consider the length of the commute when seeking employment.
• Negotiate or reject work assignments that don’t allow appropriate rest between shifts.
• Before accepting a position, consider the organization’s commitment to ensuring a culture of safety.
Employer engagement
Advocacy efforts from the ANA, the Joint Commission, and federal labor laws on nurses' behalf have contributed to employers' actively engaging in nurse wellness strategies. Nurses should seek work environments that promote safe practice and adequate rest by:
- providing predictable schedules and limited consecutive night shifts so nurses can plan for work and personal responsibilities
- fostering a work culture that supports protected time away from patient care duties via scheduled meal and rest breaks or naps during scheduled breaks
- instituting policies that support nurses' ability to reject work assignments without fear of retaliation related to abandonment.

Pursue solutions
Although the relationship between fatigue and safety risks has been recognized by the ANA and The Joint Commission and potential solutions have been recommended, a disconnect still exists between the research and nurse staffing policies, workplace cultures, and nurse preferences. (See Continuing disconnect.)

Nurses empower patients and encourage healthy behaviors. They owe the same duty to themselves. All nurses are obligated to abide by evidence-based recommendations that promote their health and safety. Individual nurses and healthcare organizations must pursue solutions to significantly reduce workplace fatigue.

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Sleep tips for night nurses
Nurses who work night shifts can incorporate these best practices into their daily routine to ensure they get adequate, quality rest.
- Eat healthy food at work (pack healthy snacks, such as fruit and nuts).
- Avoid nicotine.
- Follow a consistent bedtime.
- Don't drink alcohol or caffeine before bedtime.
- Participate in relaxing activities (such as reading, prayer, meditation, or a warm bath) before bedtime.
- Ensure comfortable sleep with a supportive mattress and pillows.
- Sleep in a dark, cool, quiet room.
- Journal any thoughts or anxieties that affect adequate sleep to help release them until morning.
- Don't eat too little or too much right before bed.
- Avoid exercise right before sleep.

Continuing disconnect
Several barriers to implementing evidence-based fatigue-reduction strategies exist.

Breaks Stimpfel and Aiken assessed shift length, scheduling practices (including the ability to take a break), and overall nursing care quality. They found that many nurses don't consistently take breaks, potentially affecting their productivity and well-being as well as patient safety.

Naps In an implementation project, Geiger-Brown and colleagues evaluated napping during night shift to address fatigue. Managerial approval was the primary barrier to implementation, but in the units that implemented the project, nurse participants who took naps reported less drowsiness during the commute home. However, they acknowledged that staff constraints and unit culture discouraged removing all unit and patient responsibilities during breaks.

Nurse perceptions and preferences
A study by Haller and colleagues reported that nurses who prefer 12-hour shifts believe that care continuity positively impacts quality. However, opinions about nurse quality of life and wellness were mixed between 12-hour and 8-hour shift preferences. Stimpfel and Aiken found that nurses who worked 10 or more hours (compared with those who worked 8 or 9 hours) were more likely to report poor care quality and safety.

In a pilot study, Martin found that nurses don't prefer a 5-day workweek; the nurses said they feel as if they "are always at work." And Stimpfel and Aiken reported that most nurses prefer flexible schedules that they develop themselves.

When Petrov and colleagues evaluated sleep strategies, ethnicity, and longevity of night-shift employment, they found that most night-shift nurses preferred sleeping at night when they were off shift. This maladaptive sleep strategy contributes to cardiovascular diseases, job performance akin to legal levels of alcohol intoxication, and excessive daytime drowsiness.