



# Creating Disability Inclusive Work Environments for Our Aging Nursing Workforce

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The workforce is aging, and the implications of an older nursing workforce are profound. As nurses age, injuries and disabilities are more prevalent. If disabilities were more commonly recognized and accommodated in the design of our nursing work environments, we could meet future needs. This article explores the literature on accommodations for an aging workforce, reports disabilities commonly seen in this population, and introduces universal design.

The workforce is aging. In 2012, approximately one-fifth of employed workers were at least 55 years old.<sup>1</sup> Workers aged 55 to 64 years increased 64% between 1998 and 2008.<sup>2</sup> These statistics are also reflected in the nursing workforce, with the average age of all licensed nurses rising from 46.8 in 2004 to 47.0 years in 2008, and the age group from 50 to 54 years representing 16.2% of RNs in 2008.<sup>3</sup> The implications of an older nursing workforce are profound. Most significantly, as the workforce ages, disabilities are more prevalent.<sup>4</sup>

Aging has physical effects. Older individuals, defined as adults older than 40 years, are at risk for

reduced visual capacity due to presbyopia, cataracts, and glaucoma.<sup>5</sup> Decreased strength, flexibility, and bone mass result in greater susceptibility to injury.<sup>6</sup> Other changes may impact older workers' endurance and reaction times, particularly decreased breathing capacity and oxygen exchange rate, lower flexibility in blood vessels, and thickening of the arteries.<sup>6</sup> Hearing loss, especially in higher frequencies, results in potential communication issues.<sup>6</sup> Older workers may demonstrate declines in mental processes in their 50s and 60s.<sup>6</sup> On a positive note, some aging individuals are reported to be more motivated and experience lower levels of depression and occupational stress than younger workers.<sup>6</sup>

## Workplace Injuries of Older Workers

Older workers are susceptible to more workplace injuries, especially affecting the neck, back, and feet, and are less able to perform strenuous physical tasks than younger individuals.<sup>7</sup> Nurses have been found to experience a high incidence of back injuries.<sup>8</sup> In the 2011 survey of RNs conducted by the American Nurses Association, 56% of the respondents indicated that they have experienced musculoskeletal pain caused or made worse by their jobs, 80% frequently worked despite experiencing musculoskeletal pain, and 42% were injured at work at least once in the 12-month period prior to the survey.<sup>9</sup> An aging workforce is not limited to the United States. Approximately 67% of nurses (n = 5,538) in a study conducted in Denmark left the workforce, with an estimated 1 of 10 still employed at the age of 66 years.<sup>10</sup>

The nursing practice environment must be adapted to decrease injury to nurses, but especially

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The authors declare no conflicts of interest.

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Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site ([www.jonajournal.com](http://www.jonajournal.com)).

DOI: 10.1097/NNA.0000000000000208

aging nurses. When work becomes more difficult to perform, nurses are more likely to consider leaving the profession.<sup>11</sup> Early intervention and awareness may help to retain aging nurses.<sup>11</sup> To promote the retention of older, more experienced nurses in the workforce, the Robert Wood Johnson Foundation<sup>12</sup> recommended several initiatives including workplace redesign, flexible work options, and improved ergonomics.

Emotional health issues among the nursing workforce require attention as well. Letvak and colleagues<sup>13</sup> found that 18% of hospital-employed nurses experience depressive symptoms. In addition, they found that nurses with depression are not only likely to suffer themselves, but also their illness may have an impact on their coworkers and potentially the quality of care they provide.

The nursing profession must realize and accept that disability is a common component of the human experience.<sup>14</sup> Employees in organizations demonstrating caring regarding quality of life have been shown to be more motivated and productive.<sup>15</sup> As an important side benefit, increased contact with coworkers having accommodations for disabilities may result in more positive attitudes toward all individuals with disabilities.<sup>16</sup>

If disabilities common to the aging workforce were more commonly recognized and accommodated as we designed our nursing work environments, would they be seen as normal? Can anticipation and accommodation of disability as part of nursing practice—for all nurses, young and old—shape our attitudes? These questions guide the content of this article exploring accommodations for an aging workforce.

### Disability Defined

In considering strategies for moving toward universally accessible workplaces, it is important to understand the term *disability*. Some think of disability as a result of a physical or mental condition that prevents or limits an individual from performing certain functions. The Americans with Disabilities Act of 1990 (ADA) definition uses this approach to activity accommodations.<sup>17</sup> Others think that disability is a function of the interaction between an individual and the characteristics of the natural, built, cultural, and social environments in which they live and work.<sup>18</sup> Regardless of the perspective, disabilities may interfere with the essential functions of a nurse. Furthermore, although the nurse may not perceive the disability as a limitation, it may be perceived as such by colleagues.

### Mandates for Accommodation

Accommodation in the workplace for disabilities is mandated.<sup>17,19</sup> The Age Discrimination in Employ-

ment Act prohibits discrimination based on age in any aspect of employment, including hiring, firing, pay, job assignments, training, promotion, and benefits.<sup>19</sup> The ADA prohibits discrimination based on disability in all areas of employment.<sup>17</sup> Many other countries have similar legal mandates including Canada,<sup>20</sup> Australia,<sup>21,22</sup> and the United Kingdom.<sup>23</sup>

### Accommodation Approaches

To date, there is no documentation demonstrating that nurses with disabilities jeopardize patient safety or care. Conversely, retaining these nurses may positively influence patient care, as those in the healthcare system benefit from the expertise, experience, and presence of nurses with disabilities.<sup>11</sup> Although accommodation is most frequently negotiated directly with workers who request it, such individualized approaches overlook a broader strategy that has the potential to improve conditions for all workers. When we apply the principles of universal design, specific to disability accommodations, we create innovative environments that can improve the workplace for all. In addition, because disabilities are not always permanent, by using principles of universal design, employers can return injured employees to the workplace sooner and retain them longer.<sup>24</sup>

### Universal Design

Universal design means creating environments and everyday tools that make life more accessible for, not only those with disabilities, but also for the able-bodied persons.<sup>25,26</sup> Universal design is a lens through which every aspect of a business can be viewed, from products to services, the physical environment, communications, and technology.<sup>26</sup> Principles of universal design can benefit everyone (Table 1). An aging nurse workforce in conjunction with an impending nursing shortage provides good rationale to support the consideration of universal design into healthcare settings.<sup>28</sup> To support the implementation of universal design and accommodation, nurses with disabilities are sharing examples of environments, experiences, and accommodations that benefited them in the literature.<sup>29</sup>

### Environment

Wood and Marshall<sup>30</sup> report accommodations for nurses with physical disabilities including the adjustment of job descriptions to exclude lifting or participation in cardiopulmonary resuscitation and the use of assistive devices for lifting or pairing the nurse with another nurse or nursing assistant to help with physical care. In addition to exclusions, the job description may



**Table 1. Seven Principles of Universal Design<sup>a</sup>**

		Authors' Suggestions
1. Equitable use	Design is useful and marketable to people with diverse abilities	Use of 1-hand adjustable IV poles; volume adjustable phones
2. Flexibility in use	Design accommodates a wide range of individual preferences and abilities	Use of monitors with enlargeable text displays and audio output, use of telephones with audio and texting capabilities
3. Simple and intuitive use	Design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level	Use of printed and audio-taped policies and procedures, illustrated instruction manuals
4. Perceptible information	Design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities	Use of audio and captioned videos for orientation, staff development presentations, and meetings
5. Tolerance for error	Design minimizes hazards and the adverse consequences of accidental or unintended actions	Use of single-handed syringes
6. Low physical effort	Design can be used efficiently and comfortably and with a minimum of fatigue	Use of assistive patient lifting/transfer devices and patient lift teams
7. Size and space for approach and use	Appropriate size and space are provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility	Use of flexible access computer stations for those who need to work from a standing or seated position, availability of different types of chairs at nurses' stations

Adapted with permission from NC State University, The Center for Universal Design, 1997.<sup>27</sup>

include new responsibilities in which the nurse could function; for instance, checking the supplies on the code cart. This can reinforce the notion that nurses with disabilities will not contribute less, just contribute in a nontraditional manner.

As 1 example, a nurse with multiple sclerosis needed changes to her workstation and work schedule. Her employer accommodated her by making her workstation wider and adding an adjustable keyboard tray. Her work schedule was changed to allow for periodic rest breaks, and her work station was moved closer to the restroom and break room in order to decrease fatigue.<sup>31</sup>

A nurse with fibromyalgia working evening shifts in a county health clinic experienced fatigue and pain at work. Her physician recommended a schedule change so she could regulate her sleep patterns. Accommodation suggestions included a shift change from evenings to days, eliminating working 2 consecutive 12-hour shifts, reducing hours worked to part time, and frequent rest breaks.<sup>31</sup>

A nurse with insulin-dependent diabetes and hypoglycemia had problems eating regularly during her workday, causing blood glucose problems. Her schedule was altered by eliminating the evening rotation until her blood glucose levels could be controlled on a consistent basis. The employer reported this as an effective accommodation.<sup>31</sup>

A nursing supervisor with a mobility challenge was employed for many years in a position that required covering 27 floors in 5 buildings for a total of 2.5 miles of walking during any given shift. The nurse

requested accommodation, which included purchase of a scooter. After a detailed explanation and comparison of the cost of the scooter versus the cost of losing an experienced supervisor (advertising, coverage and new hire orientation), the hospital purchased the scooter for the employee.<sup>32</sup>

A nurse who wore leg braces worked at a facility that was constructing a new emergency room. The original design included a raised nurses' station, which would not work well for this nurse, who had difficulty with steps and rolling chairs. Ultimately, the department did not include the step in the nurses' station and provided the nurse a chair without wheels.<sup>33</sup>

The increased number of nurses with functional restrictions influenced the development of an accommodation program at the Warren G. Magnuson Clinical Center of the National Institutes of Health.<sup>34</sup> When an employee requires accommodation, he/she requests entry into the Medical and Reasonable Accommodation program.<sup>34</sup> Temporary work assignments may include clerical support, modified clinical assignments, research or administrative support, or special projects. This has resulted in considerable savings to the organization in workers' compensation claims.<sup>34</sup>

## Communication

A nurse who was born missing her left hand reports that she had to humble herself and ask for help when she catheterized a patient in the hospital, but in return she always tried to offer help to others when needed, such as lifting patients. To her surprise, able-bodied

nurses were often asking her to help them, including when they were inserting a catheter. She reported, "All of the nurses had strengths and weaknesses. We needed each other."<sup>32(p29)</sup>

Matt<sup>33</sup> studied the experiences of nurses with disabilities working in hospital settings. One respondent shared her appreciation for her supervisor's treatment of her. The supervisor made the nurse feel like she was a respected nurse and no different than others.

A psychiatric nurse with cancer was experiencing difficulty dealing with job-related stress. His employer accommodated him with a temporary transfer. He was referred to the employee assistance program for emotional support and stress management tools.<sup>31</sup>

Accommodating nurses with hearing loss may be accomplished in a variety of ways. For example, administrators and staff need to speak directly to the nurse to enable lip reading as an adjunct to hearing. Assigning a "code buddy" to notify a nurse with hearing loss when a code is called enables the nurse to be informed of critical situations. Lights in hallways have also been suggested as accommodation instead of call bells for the hearing-impaired nurse.

Speech recognition software may be beneficial to many nurses with poor handwriting related to arthritis or other musculoskeletal conditions. In a situation when a nurse with a communication disability involves speech, patience from fellow nursing colleagues may be enough to enable the nurse to continue to practice.<sup>11</sup>

## Technology

Matt<sup>33</sup> reports that a nurse with a hearing loss was accommodated with a change in technology. "They switched the phones in the operating room to phones with a volume adjuster so I could hit the button to increase the volume."<sup>33(p1528)</sup> A nurse with vision or hearing loss might be able to continue to work by using minor adjustments such as large type and lights instead of call bells.<sup>11</sup> Captioning is also an option that is being explored for use in the operating room for individuals with hearing loss.<sup>35</sup>

A midwife working for Liverpool Women's Hospital NHS Trust was diagnosed with neurofibromatosis, which impacted her mobility, manual dexterity, ability to lift/carry objects, and her hearing.<sup>36</sup> Her work as a midwife had to cease, but new opportunities emerged through adjustments from her employer. She was provided with reduced, flexible hours, a reserved parking space, an electric office chair, a wheelchair-accessible workstation, electronic office equipment, and a headset for the telephone.<sup>36</sup>

## Implications for Nurse Executives

Some accommodations can benefit all nurses, whether or not a disability is identified. Shorter work days or nights, warm, inviting break rooms, scheduled rest or stretch breaks, and stress management techniques are all strategies that can benefit not only older nurses in particular, but also all nurses in general.<sup>12,37,38</sup>

The Institute of Medicine<sup>38</sup> promoted the retention of aging nurses, emphasizing their role as mentors to younger, less experienced workers. Suggestions for retention included the development of jobs that are less physically demanding, taking advantage of technology to assist in labor-intensive tasks, and implementing flexible work schedules. All of these accommodations are appropriate for workers with disabilities and should be considered by nurse executives.

Mental health concerns, particularly related to depression, should be addressed. Discussions related to depression need to be discussed openly. Experts can be invited in to address signs and symptoms of depression and available resources (see Document, Supplemental Digital Content 1, <http://links.lww.com/JONA/A402>) at staff meetings. Hospitals can sponsor workshops to teach skills to help with depression, for example, meditation and reflective journaling.<sup>39</sup> In light of the incidence of depression associated with persons of all ages, efforts to address this are critical.

When considering purchase of new equipment such as feeding, IV, patient-controlled analgesia pumps, and blood glucose monitors, organizations need to consider whether a nurse with low vision is able to read the screen display.<sup>32</sup> Monitors with enlargeable text displays or audio output could benefit many nurses.

Offering information in alternative formats such as large print and audio can benefit patients as well as aging nurses. Healthcare organizations can support "Graying and Staying" initiatives and newsletters to share information, activities and resources (see Document, Supplemental Digital Content 1, <http://links.lww.com/JONA/A402>).<sup>40</sup> Newsletter articles can showcase the accomplishments of older nurses with and without disabilities. Articles about employees from diverse backgrounds can showcase nurses with and without disabilities working for the organization.

## Conclusion

It is imperative that healthcare organizations accept the reality that aging and disability are part of life for nurses, as they are for all people. Reasonable accommodation for nurses with disabilities is a legal mandate in many parts of the world. When employers provide reasonable accommodations for nurses with



disabilities, they are retaining talent, ability, and experience; providing role models for those whom they serve; and complying with the law. Accommodating

nurses with disabilities will benefit others in the workforce as well. Ultimately, inclusive and supportive working environments are good for all.

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