



# Dying to retire or living to work: Challenges facing aging nurses

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**Abstract:** Nurses who work in high-stress positions may be at risk for health problems that may result in early retirement. This article identifies health risks to aging nurses who continue to work in clinical settings and suggests methods for reducing negative health impacts to prevent them from retiring prematurely.

**Keywords:** aging, nursing shortage, prejudice, retirement, stress

#### Case study 1

DG, a 56-year-old nurse, gently touched the boney hand of the older adult woman who was ready to be discharged from her chemotherapy session. The patient smiled and said that today she felt less lonely and frightened than she had felt since the COVID-19 pandemic started. DG had successfully stabilized his patient after she had experienced a potentially fatal chemotherapyinduced adverse drug reaction earlier in the shift. He postponed finishing his electronic charting, secured her belongings, gave a thorough report, and wheeled her into the hands of her next caregiver. Knowing that his next four patients had arrived for treatment, DG stopped at the nurses' station and grabbed donuts and a cupcake piled high with icing that coworkers brought in for the team. Gulping down cold coffee with a couple of ibuprofen, he overheard a young nurse discussing how the old nurses ought to be put out to pasture because they are too slow and seem to make too many errors. He suppressed his anger, made a joke, and answered the call light of one of her patients. DG mentally tabled his ideas for a better work environment and a new healthy lifestyle plan so that he could focus on the work at hand.

At home, DG's feelings of loneliness and isolation, in addition to the recent loss of his partner to COVID-19, were compounded by what he felt was the neediness of his grown son and mother. That night, as he reached for another beer, pondering an early retirement, he realized that he needed to discuss these feelings with his manager.

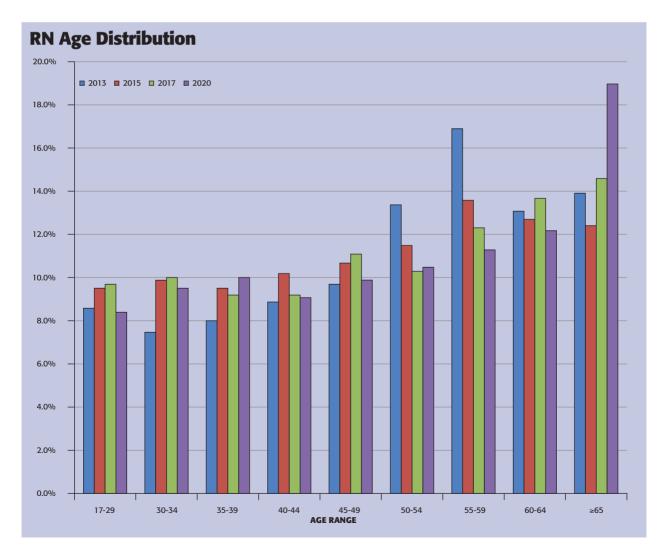
DG's manager suggested he participate in a new research protocol using a meditation and mindfulness application. DG joined a peer diet and exercise group, along with employersponsored grief counseling to address the loneliness and sadness he was feeling since the loss of his partner. He felt empowered through these interventions and began to express his feelings to his coworkers and manager about perceived ageism in the workplace. He also offered suggestions to address staffing problems, which his manager passed on to leadership. He addressed his lack of confidence with current technology by taking training courses and asking for help from IT support and younger,

more confident peers. DG involved himself in a political group to expose the moral injury that nurses encounter, especially older nurses such as himself. DG has postponed his early retirement plans to advance his ideas.

#### **Recognizing the challenges**

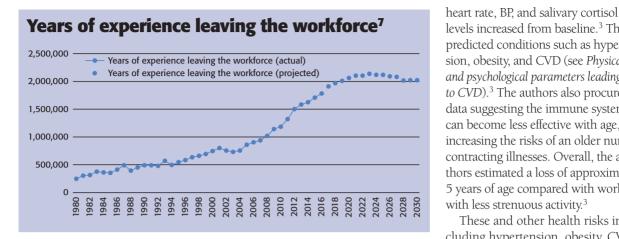
Nurses who work in high-stress positions may be at risk for health problems that may result in early retirement.<sup>1-3</sup> The average age of a nurse working in the clinical setting in the US is approximately 52 years old, and the average age of nurses retiring is approximately 58 years old (see *RN age distribution*).<sup>4,5</sup>

Problems encountered by nurses over 50 years of age include physi-



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cal strain. cardiovascular disease (CVD), diminished immune function, psychosocial stressors, cultural or generational biases, negative attitudes and stereotypes about aging, and rapid technologic advances.6

In late 2020, the International Center on Nursing Migration reported that the COVID-19 pandemic had an increased impact on the current international 5.9 million nurse shortage.<sup>7</sup> The 2020 National Nursing Workforce Survey report predicted that by 2030, more than 1 million nurses in the US will have retired.4,6-8 Buerhaus,<sup>7</sup> a nurse and healthcare economist, described the impact of retiring nurses as a loss of experience capital. The imminent exodus of nurses via retirement will create a vacuum loss of "knowledge, skill, experience, and judgment which all contribute to the successful clinical and administrative operations of healthcare institutions," he says.<sup>7</sup> Based on his loss of experience calculations, Buerhaus estimates a loss equivalent to more than 2 million years of nursing experience by

2023 (see Years of experience leaving the workforce).<sup>7,9</sup>

This article identifies health risks to aging nurses who continue to work in clinical settings and suggests methods for reducing negative health impacts to prevent nurses from retiring prematurely.5-6,10-12 Healthcare institutions, state boards of nursing and leaders, and individual nurses may halt a nursing shortage by taking immediate action to address the problems facing aging nurses.

#### **Physical health risks**

Several types of physical factors can increase nurses' risk for poor health. Nurses have a higher than average percentage of obesity, sleep problems, untreated depression, anxiety, and chronic pain than other occupations.<sup>2,3,13</sup> Cardiovascular and musculoskeletal changes may be the primary factors that reduce nurses' health as a nurse works past the age of 55.3,13 In an extensive study of 216 manual workers, including nurses, whose jobs required physical strain, participants'



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levels increased from baseline.<sup>3</sup> These predicted conditions such as hypertension, obesity, and CVD (see Physical and psychological parameters leading to CVD).<sup>3</sup> The authors also procured data suggesting the immune system can become less effective with age. increasing the risks of an older nurse contracting illnesses. Overall, the authors estimated a loss of approximately 5 years of age compared with workers with less strenuous activity.3

These and other health risks including hypertension, obesity, CVD, a diminished immune response, and a short supply of personal protective equipment (PPE) are of significant concern for older nurses working at the bedside during the COVID-19 pandemic.14-16

Sensory decline such as changes in hearing and vision, as well as changes in cognition, can be compounded by stress; poor lighting; font size; extraneous noise in the workplace; lack of sleep; and lengthy, rotating shift work.<sup>6,13,17</sup> Such lengthy and rotating shift work can also contribute to cardiovascular issues, gastrointestinal disorders, psychological complaints, cancer, diabetes, impacts on families and employers, and patient safety.18

In a pre-COVID-19 pandemic study involving 1,800 nurses, Melnyk et al.<sup>19</sup> determined that suboptimal physical and mental health were reported by as many as 59% of the participants, which contributed to those nurses being up to three times more likely to make medical errors.17 Since medical errors are a leading cause of patient morbidity and mortality, pursuing optimal physical and mental health interventions is necessary.<sup>20</sup>

#### **Psychosocial health risks**

Psychosocial health risks that impact aging nurses often arise from moral injury as staffing shortages impact workload, thereby resulting in self-neglect, depression, anxiety, further physical problems, and social isolation.<sup>21</sup> Moral

injury occurs when a person's conscience or moral compass is damaged as a result of the betrayal of beliefs, values, or ethical codes of conduct, which may leave lasting psychological, social, and cultural effects. For example, if a clinical nurse perceives that the care given or omitted caused harm to patients or their families, the nurse may experience moral injury.<sup>21</sup>

In their personal lives, nurses also act as caregivers to their significant others, children, grandchildren, parents, extended family, friends, and community. Nurses must choose between numerous demands of their time such as prioritizing family; work; and meeting the needs of providers, insurance, the hospital, electronic health records (EHRs), and productivity metrics.<sup>22</sup> The inability to balance work and personal life often results in an emotional conflict that can place the aging nurse into a cycle of increased stress, loss of sleep, and a further decline in physical health.<sup>6,22,23</sup> As a result, caregiving demands predict early retirement among nurses.5

Nurses struggling with work-life balance tend to neglect self-care needs such as physical exercise routines; breaks at work; vacations; and recreational, spiritual, and social activities.<sup>3,22,23</sup> Neglect of self-care not only impacts one's physical health but also psychological well-being. This can contribute to and be a symptom of compassion fatigue, often associated with repeated exposure to trauma and stress at work.<sup>2,6,24,25</sup>

Recognizing the impact of nurses' health on patient health, national initiatives have been implemented by several organizations, including the ANA's 2018 program "Healthy Nurse, Healthy Nation." The program focuses on nurses' physical activity, sleep, nutrition, quality of life, and safety.<sup>24</sup>

#### Case study 2

AB, an athletic 52-year-old, experienced ICU nurse with a stellar work and attendance record, had been trying for over a year to transfer to an outpatient clinical area to reduce the amount of physical strain on her body. After hearing that some companies use applicant tracking software to screen age, AB updated her résumé by eliminating the first decade of her work experience and removing telltale outdated skill descriptions, such as rotating tourniquets for pulmonary edema, shaving patients preoperatively, regulating I.V. fluids manually, and sterilizing syringes and urinary catheters for reuse. After the changes. she received numerous interviews and secured a transfer

#### **Prejudice and discrimination**

Ageism, a term for prejudice and discrimination against employees or applicants because of older age, remains prevalent in all professions, including nursing.<sup>26</sup> For example, employers and younger nurses may assume that older nurses cannot handle the increased use of technology in the healthcare setting or that their age equates to decreased physical capability and subsequently diminished care of patients.<sup>26,27</sup> Generational differences in values and characteristics can be a driving factor regarding the treatment of some older nurses.<sup>27-30</sup> Older nurses have reported feelings of discrimination based on their age when working with younger nurses and supervisors.28,30,31

Management practices can also negatively affect older nurses through the limitation or exclusion from education and training opportunities, reduced opportunities for advancement and promotion, or forced early retirement. Some older nurses have also been stereotyped as "out-of-touch" or too old to handle the rigors of the profession. Such ageist preconceptions can negatively affect self-esteem, psychological functioning, financial security, and career growth.<sup>28,30,31</sup>

Despite federal laws prohibiting age-based discrimination, it remains

prevalent.<sup>26,28</sup> According to Lipnic.<sup>26</sup> former chair of the US Equal Employment Opportunity Commission (EEOC), 90% of workers surveyed in 2017 described age discrimination as common in the workplace, even though it had been 50 years since the enactment of the Age Discrimination in Employment Act of 1967 (ADEA). Lipnic also concluded that most age discrimination is underreported and that the number of age discrimination complaints submitted to Federal or State agencies had increased as much as 50% in people over 55 from 1990 to 2017.26

Retirement was listed among the top three reasons nurses leave employment.<sup>29</sup> The impact of prejudice and discrimination on the nursing shortage may be one of the most significant. Age discrimination can have an increased negative impact and is more relevant for mature workers than for younger ones, but can be perceived by all ages when experiencing presenteeism (the nurse is present but not actively involved in the work).

The benefits of a nursing workforce diverse in age are reflected when older nurses bring knowledge, stability, experience, and mentorship.26 Establishing a close relationship with younger nurses in the workplace can be valuable to patient care, safety, satisfaction, and positive patient outcomes.5,30 When older nurses share their knowledge and confidence with less experienced nurses, they can bring about an increased understanding of organizational policies and structure. They can also encourage healthy professional and interpersonal relationships and autonomous, independent decision-making with the capacity to deliver patient care following objective morality.28 Many older nurses value a positive work ethic, have polished written communication skills and increased motivation to succeed at improving patient outcomes, and have been more committed to staying with their employer long term.<sup>26,29</sup>

Actions to keep aging nurses in the workforce <sup>1-6,13-15,17-28,32,33,37-40,45-51</sup>				
	Problems for Aging Nurses	Organization	Personal	Pursue Funding (Capital & Operational) & Policy Catalysts
Physical	Stress induced CVD: Job strain • Elevated BP • Elevated cholesterol • Obesity • Physical strain • Musculoskeletal/back injury • Sleep problems Aging decline • Vision impairment • Hearing loss • Diminished immune system Exposure to contagions	~ ~ ~ ~ ~ ~ ~	√ √ √	<ul> <li>Utilize RN ability to delegate and perform tasks</li> <li>Increase nurse and ancillary staffing</li> <li>Establish meaningful recognition programs</li> <li>Offer flexible shifts, work roles, part time, and flexible pension incentives</li> <li>Offer and access healthcare, concierge medicine, healthy diet and exercise incentives, massage therapy, stress relief programs</li> <li>Promote and utilize paid fitness opportunities</li> <li>Increase supportive, power lift, ergonomic, and robotic equipment and training resourcing capital and bedside nurses in planning and purchasing</li> <li>Utilize teleheaith to accommodate nurses who need reduced in person patient exposure</li> <li>Provide and use appropriate PPE</li> </ul>
Psychosocial	<ul> <li>Psychosocial strain:</li> <li>Moral injury</li> <li>Depression/anxiety</li> <li>Cognition</li> <li>Social isolation</li> </ul> Unhealthy coping: <ul> <li>Lifestyle habits</li> <li>Substance use disorders</li> </ul>	イ イ イ イ イ イ	1 1	<ul> <li>Establish events and education to encourage autonomy</li> <li>Establish and access moral injury and compassion fatigue education and research</li> <li>Encourage mental health programs, promote and access employee assistance programs ensuring privacy</li> <li>Promote resilience programs</li> <li>Promote healthy social opportunities</li> <li>Assess for individual moral injury at least annually</li> </ul>
Cultural/ Generational Prejudice	<ul> <li>Stress induced by age discrimination</li> <li>Financial insecurity</li> <li>Ageist preconceptions</li> <li>Stereotypes</li> <li>Decreased opportunity for promotion</li> <li>Variations in education/training</li> </ul>	* * * *		<ul> <li>Establish age diverse ethics and policy committees</li> <li>Include age diversity in discrimination prevention and implicit bias training</li> <li>Establish age diversity education</li> <li>Establish realistic and actionable goals toward retention of the aging nurse as part of mission statement, values, and standards for human resources</li> <li>Review wage scales for retention along with reten- tion bonuses</li> </ul>
Technology	Stress induced by technology: <ul> <li>Rapid changes</li> <li>Inadequate training</li> <li>Technostress</li> <li>Font size and type</li> <li>Room lighting</li> <li>Ergonomics</li> <li>Equipment reliability</li> <li>Screen time overuse</li> </ul>	インマイン	1	<ul> <li>Offer education and increased real time clinical IT support</li> <li>Implement and embrace reverse mentoring</li> <li>Accommodate aging nurses</li> <li>Set standard fonts and graphic tones for labels, fonts, apps, flowsheets and patient identifiers</li> <li>Research screen time exposure risks</li> <li>Promote nursing innovation and research</li> </ul>

### Actions to keep aging nurses in the workforce<sup>1-6,13-15,17-28,32,33,37-40,45-51</sup>

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#### **Technologic impact**

Rapid technology advancements affect older nurses' ability to adapt. While technology is omnipresent, its integration into healthcare has significantly changed the way many nurses practice. For example, EHRs require frequent upgrades and various applications that nurses use to document; administer treatments, medications, and I.V. fluids; print patient lab labels; and manage patient care.

These changes in technology have motivated some older nurses to leave the profession.<sup>26,29,32,33</sup> For those who continue working, technology changes can lead to increased stress and anxiety, particularly "technostress."26,34,35 Technostress results from a combination of high demands and low control at work and can occur as a result of decreased autonomy, frequent computer updates, technology system downtime, having to use new equipment, and technologic additions to clinical practice.<sup>36</sup> During the COVID-19 pandemic, healthcare quickly transitioned to the use of telehealth and virtual meetings. Spending more than 4 hours per day on computer and TV screens is suggested to induce sleep disruption, memory problems, vision problems, moderate-to-severe depression, obesity, and a sedentary lifestyle.<sup>37,38</sup>

What appears to be a grim outlook for aging nurses and the nursing shortage might be an opportunity for healthcare institutions to implement organizational flexibility<sup>39</sup> and for nurses to collaborate and innovate (see Actions to keep aging nurses in the workforce).<sup>40</sup>

## Reducing the impact on aging nurses

#### Physical

Healthcare institutions wishing to hold the American Nurses Credentialing Center's prestigious Magnet status could lead efforts with immediate investment toward the ANA's Healthy Nurse, Healthy Nation initiatives. When funding and focus are redirected toward the improvement of nurses' physical well-being, the risks of CVD, musculoskeletal injury, and sensory decline may be reduced.<sup>3</sup> Managers who recognize the financial and staffing advantages of utilizing nurses' highest level of education and ability to delegate tasks have the opportunity to add supportive staff along with equipment. Nurses who wish to see changes will find it necessary to embrace their role in the collaborative process of improving their health and the health of the work environment.

Employers such as The Ohio State University James Cancer Center have offered healthy food choice options including fresh farm-to-table options in cafeterias, gym memberships with incentives for exercise and weight modification, and afterwork sports which have been shown to improve employee health.<sup>3,20,41-43</sup> Young adult training programs could be expanded with suitable exercise programs to meet the needs of the aging nurse by focusing on strength, flexibility, and balance.

Innovative leaders may benefit by debriefing with supply chain teams to examine methods needed to remedy problems encountered for the future provision of necessary PPE.

Programs on improving sleep and reducing stress, sleep technology applications, reduction of screen time before bedtime, and eliminating shift rotation to optimize a nurse's sleep schedule can reduce sleep problems among nurses.<sup>18,37,44</sup>

Hospital leadership can encourage consistent breaks, offering ample indoor and outdoor garden break areas, and paid vacations.<sup>19,45,46</sup> Massage therapy sessions scheduled at intervals during a nurse's work day may help reduce stress and have been shown to decrease BP.<sup>47</sup> Part-time and unique flexible pension opportunities can help meet urgent staffing needs but also benefit the aging nurses' health.<sup>19,37</sup> Melnyk<sup>19</sup> noted that employers who invest in healthy lifestyle incentives will often see a return of 4 dollars for every dollar spent.

#### Psychosocial

Improving physical hazards and measures to address the psychosocial impact of work-life balance and stress can address negative psychosocial factors. "Successful aging" uses psychological and social processes to adapt to changes in later life and bring about improved quality of aging and an expansion of functional years. Pursuing spiritual and social activities and adding resilience training programs based on mindfulness may restore aging nurses' health.<sup>43</sup>

All nurses may benefit from personal reflection on the impact of moral injury and compassion fatigue, and pursue healthcare options to address its effects on their health.<sup>24</sup> Wicks and Donnelly<sup>39</sup> offer a detailed guide for healthcare workers to recognize and overcome stress to improve professional resilience.

Boards of Nursing and leaders may influence healthcare institutions by emphasizing and prioritizing the importance of supportive measures to improve the psychosocial health of aging nurses. Payers of healthcare costs such as private insurance and government programs could offer financial incentives and redirect fines and penalties so that healthcare institutions may promote healthy measures. Employers may help aging nurses' psychosocial symptoms by implementing system-based policies to increase staffing and reduce the potential of moral injury.<sup>18,37,48,49</sup>

#### Culture and prejudice

Establishing focus groups of ethics and policy or procedure committees that are diverse in age can reduce cultural differences between nurses and prejudice toward aging nurses. Recognition of nurses' diverse and historic evolution of education and training may help younger nurses to understand that aging nurses' educational focus and generational priorities were different.<sup>32</sup> Management practices could influence change by providing unbiased opportunities for research, education, and training of older nurses. Advancement and promotion criteria could favor experience in addition to education by recognizing the value of experience and age diversity.

Many healthcare institutions offer onsite or discounted childcare for nurses, but neglect to offer onsite adult care options. Implementation of adult care options might be seen as a commitment from healthcare employers toward promoting age diversity, in addition to addressing a significant motivation for older nurses' early retirement.<sup>41</sup>

#### Technology

Technology advances have made big impacts on patient safety such as scanning a name band bar code to confirm patient medication and the automatic transfer of information from I.V. pumps to the EHR. Formally training nurses on new technology before its implementation can reduce technology stress among aging nurses.<sup>50</sup> Frequent IT support rounding on units to assist with software updates, along with reverse mentoring between younger nurses who may have more confidence with advancing technology, can aid older nurses in the transition and integration of new technologies.32,33 Participation in innovation and research opportunities may benefit aging nurses to overcome technology challenges.40

Healthcare institutions may consider establishing focus groups that involve older nurses with the innovative development and use of technology.<sup>40</sup>

Once older nurses become proficient and confident with new technology, they can feel empowered to continue using it.<sup>33</sup>

#### Conclusion

Nurses over 50 years of age may be at risk for health problems related

to physical, psychosocial, and technological stress, as well as prejudice and discrimination, that prompt early retirement.1-6 Immediate implementation of purposeful actions and policies, with healthcare leaders' recognition of the value of experience and nurses' pursuit of a healthy lifestyle, may benefit nurses' health and address current and future staffing shortages. The potential benefits of further research on methods to reduce risks to nurses' health and methods of retention and recruitment of aging nurses may postpone early retirement, improve staffing levels, and ensure patient health and safety.

#### REFERENCES

1. Seyedsadjadi N, Grant R. The potential benefit of monitoring oxidative stress and inflammation in the prevention of non-communicable diseases (NCDs). *Antioxidants (Basel)*. 2020;10(1):15. doi:10.3390/antiox10010015.

2. Gold JA. Covid-19: adverse mental health outcomes for healthcare workers. *BMJ*. 2020;369:m1815. doi:10.1136/bmj.m1815.

3. Thogersen-Ntoumani C, Black J, Lindwall M, et al. Presenteeism, stress resilience, and physical activity in older manual workers: a person-centred analysis. *Eur J Ageing*. 2017;14(4):385-396. doi:10.1007/s10433-017-0418-3.

4. Smiley RA, Ruttinger C, Oliveira CM, et al. The 2020 National Nursing Workforce Survey. J Nurs Regul. 2021;12(1):51-596. doi:10.1016/s2155-8256(21)00027-2.

5. Hewko S, Reay T, Estabrooks CA, Cummings GG. The early retiree divests the health workforce: a quantitative analysis of early retirement among Canadian Registered Nurses and allied health professionals. *Hum Resour Health*. 2019;17(1). doi:10.1186/s12960-019-0381-5.

 Buerhaus PI, Skinner LE, Auerbach DI, Staiger DO. Four challenges facing the nursing workforce in the United States. J Nurs Regul. 2017;8(2):40-46. doi:10.1016/s2155-8256(17)30097-2.

7. Buchan J, Catton H, Shaffer FA. Policies to support older nurses at work AGEING WELL? The International Center on Nursing Migration. 2020. www.intlnursemigration.org.

8. Buerhaus PI, Staiger DO, Auerbach DI, Yates MC, Donelan K. Nurse employment during the first fifteen months of the COVID-19 pandemic. *Health Aff* (*Millwood*). 2022;41(1):79-85. doi:10.1377/ hlthaff.2021.01289.

9. Buerhaus P, Auerbach D, Staiger D. How should we prepare for the wave of retiring baby boomer nurses? | Health Affairs Forefront. Healthaffairs. org. 2017. www.healthaffairs.org/do/10.1377/ forefront.20170503.059894/full/.

10. Hewko S, Reay T, Estabrooks CA, Cummings GG. The early retiree divests the health workforce: a quantitative analysis of early retirement among

Canadian Registered Nurses and allied health professionals. *Hum Resour Health*. 2019;17(1). doi:10.1186/s12960-019-0381-5.

11. Haddad LM, Annamaraju P, Toney-Butler TJ. Nursing Shortage. 2020. www.ncbi.nlm.nih.gov/ books/NBK493175/.

12. Buerhaus PI, Auerbach DI, Staiger DO. How should we prepare for the wave of retiring baby boomer nurses? *Health Aff Forefront*. 2017. doi:10.1377/forefront.20170503.059894.

13. Colpani V, Baena CP, Jaspers L, et al. Lifestyle factors, cardiovascular disease and all-cause mortality in middle-aged and elderly women: a systematic review and meta-analysis. *Eur J Epidemiol.* 2018;33(9):831-845. doi:10.1007/s10654-018-0374-z.

14. Mehanna O, El Askary A, Ali E, et al. Impact of obesity and its associated comorbid conditions on COVID-19 presentation. *Diabetes Metab Syndr Obes*. 2021;14:409-415. doi:10.2147/dmso.s287779.

15. Atay S, Cura ŞŪ. Problems encountered by nurses due to the use of personal protective equipment during the coronavirus pandemic: results of a survey. *Wound Manag Prev.* 2020;66(10):12-16.

16. White EM, Wetle TF, Reddy A, Baier RR. Front-line nursing home staff experiences during the COVID-19 pandemic. *J Am Med Dir Assoc.* 2021;22(1):199-203. doi:10.1016/j. jamda.2020.11.022.

17. Cheng M, He H, Wang D, et al. Shift work and ischaemic heart disease: meta-analysis and dose-response relationship. *Occup Med (Lond)*. 2019;69(3):182-188. doi:10.1093/occmed/kqz020.

18. NIOSH training for nurses on shift work and long work hours. 2019. doi:10.26616/ nioshpub2015115revised102019.

19. Melnyk BM, Kelly SA, Stephens J, et al. Interventions to improve mental



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doi:10.3389/fpubh.2020.558913. 21. Ford EW. Stress, burnout, and moral injury. J Healthc Manag. 2019;64(3):125-127. doi:10.1097/jhm-d-19-00058.

Front Public Health. 2020;8

health, well-being, physical

in physicians and nurses: a

health, and lifestyle behaviors

systematic review. Am J Health

doi:10.1177/0890117120920451

Klager E, et al. First, do no harm

(gone wrong): total-scale analysis of

medical errors scientific literature.

20. Atanasov AG, Yeung AWK.

Promot. 2020;34(8):929-941.

2019;64(3):125-127. doi:10.1097/jnm-d-19-00058.
22. Gao L, Gan Y, Whittal A, et al. Do problematic internet use and perceived stress mediate health

internet use and perceived stress mediate health behaviors and work-life balance? - An online study with internet-users in Germany and China (Preprint). J Med Internet Res. 2019. doi:10.2196/preprints.16468.

23. Faye C, McGowan JC, Denny CA, David DJ. Neurobiological mechanisms of stress resilience and implications for the aged population. *Curr Neuropharmacol.* 2018;16(3):234-270. doi:10.2174/1 570159X15666170818095105.

24. Fukuti P, Uchôa CLM, Mazzoco MF, et al. How institutions can protect the mental health and psychosocial well-being of their healthcare workers in the current COVID-19 pandemic. *Clinics*. 2020;75. doi:10.6061/clinics/2020/ e1963.

25. Adams A, Hollingsworth A, Osman A. The implementation of a cultural change toolkit to reduce nursing burnout and mitigate nurse turnover in the emergency department. *J Emerg Nurs*. 2019;45(4):452-456. doi:10.1016/j. jen.2019.03.004.

26. The State of Age Discrimination and Older Workers in the U.S. 50 Years After the Age Discrimination in Employment Act (ADEA) | U.S. Equal Employment Opportunity Commission. www.eeoc.gov. www.eeoc.gov/reports/state-agediscrimination-and-older-workers-us-50-yearsafter-age-discrimination-employment.

27. Stewart JS, Oliver EG, Cravens KS, Oishi S. Managing millennials: embracing generational differences. Bus Horizons. 2017;60(1):45-54. doi:10.1016/j.bushor.2016.08.011.

28. Oberliesen E. 5 ways to address age discrimination in nursing today. Nurse.com MediaKit. 2019. https://mediakit.nurse.com/5ways-address-age-discrimination-nursing/

29. NSI Nursing Solutions, Inc. 2020 NSI National Health Care Retention & RN Staffing Report. 2020. www.nsinursingsolutions.com/Documents/Library/ NSI\_National\_Health\_Care\_Retention\_Report.pdf.

30. Sikwe-Künnap VDN. An ageing workforce nurses' perceptions on retirement and care: an exploratory study. 2020. www.theseus.fi. www. theseus fi/handle/10024/342021

31. Ryan C, Bergin M, Wells JS. Valuable yet Vulnerable-a review of the challenges encountered by older nurses in the workplace. Int J Nurs Stud. 2017;72:42-52. doi:10.1016/j.ijnurstu.2017.04.006.

32. Nurse Leaders Addressing Ageism in Nursing. Duquesne University School of Nursing, 2018. https://onlinenursing.duq.edu/blog/nurse-leadersaddressing-ageism-in-nursing/.

33. Stimpfel AW, Dickson VV. Working across generations to boost staff nurse retention. West J Nurs Res. 2020;42(6):395-396. doi:10.1177/0193945919893319.

34. Califf CB, Sarker S, Sarker S. The bright and dark sides of technostress: a mixed-methods study involving healthcare IT. MIS Q. 2020;44(2):809-856. doi:10.25300/misq/2020/14818

35. Brod C. Technostress: The Human Cost of the Computer Revolution. Addison-Wesley; 1984.

36. Amiri S. Behnezhad S. Association between job strain and sick leave: a systematic review

and meta-analysis of prospective cohort studies. Public Health. 2020;185:235-242. doi:10.1016/j. puhe.2020.05.023.

37. Dragano N, Lunau T. Technostress at work and mental health. Curr Opin Psychiatry. 2020;33(4):407-413. doi:10.1097/vco.000000000000013

38. Madhav KC, Sherchand SP, Sherchan S. Association between screen time and depression among US adults. Prev Med Rep. 2017;8:67-71. doi:10.1016/j.pmedr.2017.08.005.

39. Wicks RJ. OVERCOMING SECONDARY STRESS in MEDICAL and NURSING PRACTICE: A Guide to Professional Resilience ... And Personal Well-Being Oxford University Press; 2021.

40. Raderstorf T, Melnyk BM, Ackerman M, Bibvk S. An outcomes evaluation of an innovation studio on interprofessional learning, job satisfaction, and intent to stay among clinicians. J Nurs Adm. 2020;50(2):109-114. doi:10.1097/ nna.0000000000000850

41. Kelly LA, Lefton C. Effect of meaningful recognition on critical care nurses' compassion fatigue. Am J Crit Care. 2017;26(6):438-444. doi:10.4037/ajcc2017471.

42. Hewko SJ, Reay T, Estabrooks CA, Cummings GG. Retirement decision-making among registered nurses and allied health professionals: a descriptive analysis of Canadian longitudinal study on aging data. Healthc Policy. 2019;15(2):20-27. doi:10.12927/hcpol.2019.26074.

43. Clancy TR. Artificial intelligence and nursing: the future is now. J Nurs Adm. 2020;50(3):125-127. doi:10.1097/nna.000000000000855

44. Sampedro-Piquero P, Alvarez-Suarez P, Begega A. Coping with stress during aging: the importance of a resilient brain. Curr Neuropharmacol 2018;16(3):284-296. doi:10.2174/157015 9x15666170915141610

45. Mc Carthy VJC, Wills T, Crowley S. Nurses, age, job demands and physical activity at work and at leisure: a cross-sectional study Appl Nurs Res. 2018;40:116-121. doi:10.1016/j. apnr.2018.01.010

46. Cordoza M, Ulrich RS, Manulik BJ, et al. Impact of nurses taking daily work breaks in a hospital garden on burnout. Am J Crit Care. 2018;27(6):508-512. doi:10.4037/ajcc2018131.

47. Hand M, Margolis J, Staffileno BA. Massage chair sessions: favorable effects on Ambulatory Cancer Center nurses' perceived level of stress, blood pressure, and heart rate. Clin J Oncol Nurs. 2019;23(4):375-381. doi:10.1188/19. cjon.375-381.

48. Caldwell JA, Caldwell JL, Thompson LA, Lieberman HR. Fatigue and its management in the workplace. Neurosci Biobehav Rev. 2019;96:272-289. doi:10.1016/j.neubiorev.2018.10.024.

49. Restauri N, Sheridan AD. Burnout and posttraumatic stress disorder in the coronavirus disease 2019 (COVID-19) pandemic: intersection, impact, and interventions. J Am Coll Radiol. 2020;17(7):921-926. doi:10.1016/j. jacr.2020.05.021

50. Schleiff MJ, Mburugu PM, Cape J, et al. Training curriculum, skills, and competencies for global health leaders: good practices and lessons learned. Ann Global Health. 2021;87(1):64. doi:10.5334/aogh.3212.

51. Subeq YM. [The Importance of Crossdisciplinary Technology Creativity in the Field of Healthcare]. Hu Li Za Zhi. 2019 Apr;66(2):4-5 Chinese. doi: 10.6224/JN.201904\_66(2).01. PMID: 30924508

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