

The Impact of COVID-19 on Nurses: Issues and Optimization Strategies

by

Alan Jiang

Bachelor of Science, University of Pittsburgh, 2021

Submitted to the Graduate Faculty of the
Department of Health Policy and Management
School of Public Health in partial fulfillment
of the requirements for the degree of
Master of Health Administration

University of Pittsburgh

2024

UNIVERSITY OF PITTSBURGH

SCHOOL OF PUBLIC HEALTH

This essay is submitted

by

Alan Jiang

on

March 27, 2024

and approved by

Essay Advisor: Mike Evans, MPH, Adjunct Professor, Health Policy and Management, School of Public Health, University of Pittsburgh

Essay Reader: Dan Fisher, MHA, Assistant Chair for Administration and Operations, Rehabilitation Science and Technology, School of Health and Rehabilitation Sciences, University of Pittsburgh

Copyright © by Alan Jiang

2024

The Impact of COVID-19 on Nurses: Issues and Optimization Strategies

Alan Jiang, MHA

University of Pittsburgh, 2024

Abstract

The COVID-19 pandemic has exacerbated pre-existing challenges within the healthcare industry, placing an unprecedented burden on nurses and other key healthcare workers, resulting in heightened levels of burnout and retention issues, which can have a potential negative impact on patient safety. Currently, a substantial portion of the nursing workforce is comprised of individuals nearing retirement age, further intensifying the strain on staffing levels. Even before the onset of the COVID-19 pandemic, issues related to nursing burnout and retention were prevalent. The pandemic has significantly magnified these challenges, creating a multifaceted problem that demands urgent attention. Healthcare leaders must devise and implement innovative strategies aimed at fortifying the nursing workforce. This involves a comprehensive approach that addresses the root causes of burnout and provides a positive work environment for the nursing workforce. This essay utilizes a compilation of studies and articles to develop a strategy to improve the nursing workforce. A significant number of the solutions outlined in this document are tailored to the healthcare industry; however, they also incorporate strategies from other industries.

Table of Contents

Preface.....	vii
1.0 Introduction.....	1
2.0 Literature Review	3
3.0 Background	4
3.1 Aging Workforce and Nurse Education	4
3.2 Burnout.....	5
3.3 Retention.....	7
3.4 Patient Safety and Quality of Care	12
4.0 Optimization Strategies to Improve Nursing Workforce.....	14
4.1 Reducing Nursing Burnout and Improving Retention	14
4.1.1 Partnerships with Educational Institutions	14
4.1.2 Mental Health	15
4.1.3 Leadership and Recognition/Awards	16
4.1.4 Work-Life Balance	17
4.1.5 Compensation	18
4.1.6 Artificial Intelligence	19
5.0 Conclusion	20
Bibliography	21

List of Figures

Figure 1. Displays the reasons for leaving job.....	10
Figure 2. Shows a positive relationship between Burnout and Depression.....	11
Figure 3. Response from nurses on how their organization can improve satisfaction.	13

Preface

I would like to begin by thanking Mike Evans, who served as my essay advisor. His extensive knowledge of the healthcare industry gave me the confidence I needed to successfully navigate and finish my master's essay. Mike has been a terrific mentor to me as well as a professor, and he has truly enhanced my graduate experience. I hope to continue learning from him and staying connected with him in the future. In addition, I want to express my appreciation to Dan Fisher for taking the time to read my essay and providing insightful feedback. His perspective on this topic allowed me to understand his leadership approach, and that is something I want to adopt and adapt into my skillsets as I progress in my career.

Lastly, I would like to thank all my colleagues, mentors, and professors that I have met throughout my two years at the University of Pittsburgh MHA program.

1.0 Introduction

The World Health Organization (WHO) announced the coronavirus disease (COVID-19) as a global health emergency on March 11, 2020. The emergence of COVID-19 caused the world to spiral into utter chaos, an event that the medical community was not ready for. The virus rapidly spread across international borders in an unprecedented manner. Lockdowns were implemented in several nations, including the US, to slow the spread which had detrimental psychological effect due to changes in lifestyle, social distance, and isolation. With limited information about the virus and its behavior, uncertainty loomed large, fueling fear. The fear stemmed from the novel virus's broad range of symptoms, spanning from mild flu-like indications to severe respiratory distress that could result in hospitalization or, in the worst cases, fatalities.

Despite the unknowns and pandemonium caused by the virus, healthcare workers were the unsung heroes on the frontlines as they risked their lives to save others. During the peak of the pandemic, they battled the virus to save many patients and contain the disease's spread as efficiently as possible. In less than a year, thanks to global collaboration, multiple vaccines were developed to combat the COVID-19 virus.

However, the physical and emotional toll on healthcare workers was significant, leading to heightened levels of stress, exhaustion, mental health struggles, and eventually the great resignation. As a result, the healthcare labor force encountered difficult challenges, including staffing shortages, burnout, and retention issues, specifically in the nursing workforce. The pandemic's prolonged stress and increased demands have worsened pre-existing workforce issues, requiring urgent action to enhance healthcare delivery. To optimize the nurse labor force, there

needs to be a comprehensive approach that encompasses mental health support, technology integration, work-life balance, and strategies for recruitment and retention.

The purpose of this thesis is to comprehensively investigate and address the multifaceted concerns of nurse burnout, retention issues, and their impact on patient safety. The thesis seeks to offer strategic ideas and initiatives to address the difficulties confronting the nursing workforce. By doing so, the information provided aims to contribute to the growing knowledge of healthcare management, workforce well-being, and patient care quality. Finally, the paper seeks to offer useful information that can be applied to healthcare settings to improve the overall effectiveness and long-term viability of healthcare systems.

2.0 Literature Review

This meta-analysis was formed by utilizing a significant number of referenced studies identified through PubMed and healthcare news sources. Key words that were utilized were “COVID-19 Nursing Burnout” OR “Factors that Induced Nursing Burnout” OR “Strategies to Improve Nursing Life” OR Leadership Recognition and awards” OR “Retention Process to Improve Nursing Workforce.” Additionally, information was gathered from reputable professional sources such as the American Association of Colleges of Nursing, Harvard Business Review, and miscellaneous university-provided articles.

3.0 Background

3.1 Aging Workforce and Nurse Education

Nurses are the backbone of the healthcare system, making up the largest healthcare professional group. They are essential to providing high-quality healthcare services and actively work to improve health outcomes for families, communities, and individuals. For this reason, ensuring an adequate number of nurses in a health system is essential to meeting hospital demands. Nonetheless, researchers have been warning about looming shortages in the US for years, and COVID-19, unfortunately, has expedited these pre-existing workforce issues (Tamata et al., 2022). There are several factors contributing to the ongoing crisis of nursing staff shortages.

A significant number of nursing staff are approaching retirement. Older nurses may choose to retire early due to health concerns brought on by the pandemic and decrease their risk of exposure. According to the American Association of Colleges of Nursing (AACN), they stated that "the average age for an RN is 52 years old... more than 1 million registered nurses will retire from the workforce by 2030" (AACN, 2022). The aging workforce creates a gap that is difficult to fill with new nursing professionals. Not only are these skilled nurses retiring, but they are also taking their hard-earned experiences with them without teaching the next generation of the nursing workforce, causing an imbalance in experience. This lack of mentorship can impact the workload of newer nurses, who may find it difficult to navigate the increased demands of the profession. In addition, nursing programs are not receiving enough enrollments to meet the projected demand for registered nurses (RNs) and advanced practice registered nurses (APRNs). Although bachelor programs in nursing saw a 3.3% increase in enrollment in 2021, AACN reported declines of 3.8%

and 0.7% in master's and PhD programs in nursing, respectively. These statistics raise concerns about the capability of nursing schools to fulfill the projected demand for nursing services. Another issue that is prevalent with nursing enrollment is that there is a shortage of nursing school faculty. In 2021, many qualified applications (about 91,938) for baccalaureate and graduate nursing programs were rejected by US nursing schools, primarily due to a lack of clinical preceptors, a lack of professors, inadequate clinical sites, insufficient classroom space, and budgetary constraints (AACN, 2022). The absence of practical experience, mentorship, and a strong educational foundation severely limit the future generation's competence and development of the nursing workforce all together.

3.2 Burnout

Nurse burnout is frequently described as increased mental exhaustion, an overwhelming sense of depersonalization, and decreased job satisfaction. The AACN's survey findings reveal that "52% of nurses are contemplating leaving their current roles... 60% of acute care nurses acknowledge experiencing burnout, with 75% expressing feelings of stress, frustration, and exhaustion" (AACN, 2022). The impact of the COVID-19 pandemic has significantly deteriorated the mental well-being and quality of life for nurses, contributing to an increase in burnout.

During the peak of the COVID-19 pandemic, many hospitals experienced an influx of infected patients, and nurses were expected to manage patients diagnosed with the virus that were admitted to the hospital. Being under pressure to take care of several patients and continuously adapting to changing circumstances could lead a person to experience tremendous stress. In Martin's analysis, they discovered that "high workloads and unprecedented levels of burnout

during the COVID-19 pandemic have stressed the U.S. nursing workforce" (Martin et al., 2023). A higher workload frequently results in extended workdays, longer shifts, and higher expectations for nurses. As a result, nurses will experience fatigue, weakness, and an overall feeling of exhaustion due to prolonged physical stress without enough time for recovery. Stress can be further increase when healthcare organizations do not promote a work-life balance. This would pose as a challenge because nurses would not have the ability to manage personal and family activities as they could be called into work anytime for any reason. Also, nurses find themselves working extended 12-to-16-hour shifts, often followed by a lengthy commute home. Eventually, this would lead to feelings of frustration and exhaustion as their own commitments could not be fulfilled (Putri et al., 2023). Because of their increased workloads during this period, nurses experienced elevated levels of depression, anxiety, and displeasure that subsequently resulted in burnout (Cordova et al., 2022). Additionally, an analysis conducted by García-Vivar, which surveyed nurses, indicated a notable prevalence of moderate to severe symptoms, including anxiety (29.55%), depression (38.79%), post-traumatic stress disorder (29.8%), and insomnia (40.66%). It is evident that nurses, especially fighting on the frontlines, will require mental health support (García-Vivaret al., 2023).

Due to hospitals being unprepared for the rapid onset of COVID-19, many healthcare organizations did not stock and equip enough personal protective equipment (PPE) to handle the immense volume of COVID patients. Approximately 90% of respondents stated that PPE had to be rationed and reused, while about 80% reported a scarcity of PPE. Furthermore, nearly 75% of registered nurses expressed doubt about the hospital's ability to provide sufficient personal protective equipment (Cordova et al., 2022). The anxiety stemming from the fear of inadequate protection and uncertainty regarding the availability of essential PPE has led to heightened stress

levels. Consequently, nurses may be faced with ethical dilemmas, potentially forcing them to neglect suggested safety precautions such as changing PPE between patients. Despite the availability of vaccines to protect against the virus, nurses are still people that have family responsibilities such as taking care of family members with underlying health conditions that are vulnerable to COVID. According to Doleman's analysis, nurses were hesitant to aid patients who were infected, expressing concerns regarding the potential spread of infection to themselves and thus to their loved ones (Doleman et al., 2023). As a result, it would be in the best interest of the nurse to avoid contracting the disease to prevent transmission to their family. The constant pressure to perform lifesaving tasks with limited resources and concerns regarding workplace safety contribute to nursing burnout.

3.3 Retention

Retention issues in nursing refer to challenges and factors that contribute to the high turnover rate and difficulty in retaining experienced nurses within the healthcare system. These issues can have adverse effects on the overall stability and efficiency of a healthcare system. The direct consequence of retention issues is a shortage of staff, leading to burnout among nurses. Factors contributing to these challenges often involve aspects such as job compensation, job satisfaction, and recruitment difficulties.

In times of staffing shortages and burnout, adequate job compensation is crucial for nursing due to the heavier workload, overtime, and unsafe working conditions. It serves as an important element in retaining effective healthcare staff, where greater compensation (salary, bonus, and incentives) emerged as the primary factor influencing nurse's decision to remain in the field despite

contemplating quitting (AACN, 2022). Increased pay would lead to higher job satisfaction, which directly impacts nurse retention. Job satisfaction plays a pivotal role as a primary factor influencing the commitment to stay with an organization (Presley et al., 2023). When nurses are dissatisfied with their jobs, they are more inclined to consider switching careers, putting more pressure on the healthcare industry. A nurse experiencing job dissatisfaction is unlikely to actively engage in team environments as their motivation and commitment to the organization's mission and values are diminished. However, teamwork is necessary for managing higher workloads, especially during times of burnout and shortages. Furthermore, the combination of seeking better compensation with low satisfaction could pose challenges in recruiting new talent to the nursing workforce. The nursing profession, characterized by its reputation for high stress, heavy workloads, and staffing shortages, would be perceived negatively, discouraging a new generation of professionals from entering the business.

In October 2023, a real-world incident that spanned three days and several states occurred within the Kaiser Permanente Health System. Nurses and other healthcare workers went on strike in reaction to persistent labor shortages and a rise in turnover driven by burnout from the COVID-19 pandemic. They demanded increased pay and fast measures to address these problems. In the meantime, a similar situation was occurring in the city of Pittsburgh, PA at Allegheny General Hospital (AGH). In the face of a shortage of staff, nurses united under a union to fight for higher wages and enhanced patient and nurse safety. They warned that if contract negotiations were not accepted, they intended to issue a 10-day strike. Thankfully, in this instance, the union-created agreement was accepted by AGH management, preventing the strike. The agreement states that nurses with a Bachelor of Science in Nursing (BSN) will be entitled to a minimum hourly rate of \$40 at the end of their contract period. Overall, nurses can anticipate an average salary increase

exceeding 23% once the agreement is implemented Also, the hospital is required to improve the safety and wellness of nurses, such as by installing more weapon detection and panic alarms and reducing copays for nurses seeking mental health treatment (Kilmer, 2023).

A nationwide survey of nurses revealed a variety of reasons for leaving their jobs. Analyzing Figure 1, the data shows that 69% of the nurses questioned stated that their main reason for quitting was a stressful work environment. In descending order from the next most to least significant reasons to quit, inadequate staffing is at 63%, lack of leadership is at 57%, and both compensation and schedule inconvenience are around 30%. It's possible that these factors may compound over time and cause a downward spiral. For example, elevated stress levels may result in resignations, which would then lead to a shortage of staff members. Although this is just an average, the percentages of each parameter may differ slightly depending on the location and organization of the nurses, if we are looking at a specific area of the United States.

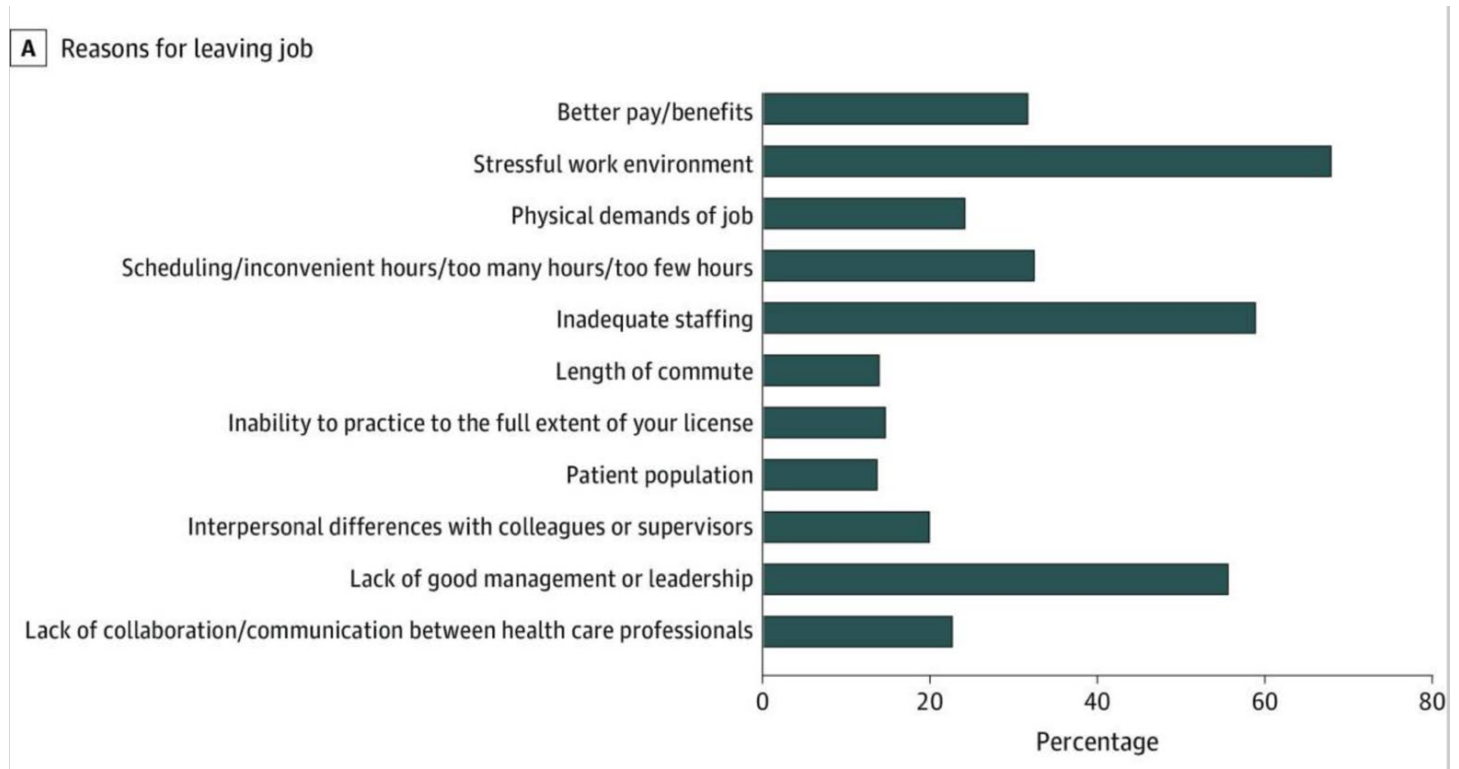


Figure 1. Displays the reasons for leaving job. Shah et al. 2021

A study conducted at a hospital in China revealed a strong correlation between depression and burnout, suggesting that these conditions often exacerbate each other. Figure 2 graphically depicts this relationship, showing that whether individuals are frontline or non-frontline nurses, depression and burnout are positively correlated. Persistent work-related stress can result in burnout, which can produce mental fatigue, negativity, and diminished self-worth. These signs and symptoms align with several of the traits of depression, including chronic feelings of sadness, despair, and a lack of interest in activities. Conversely, those with depression could find it difficult to manage the responsibilities of their work, which would result in elevated stress and burnout (Wang et al., 2023). As a result, addressing both problems at the same time is critical for successful intervention and effective mental health support.

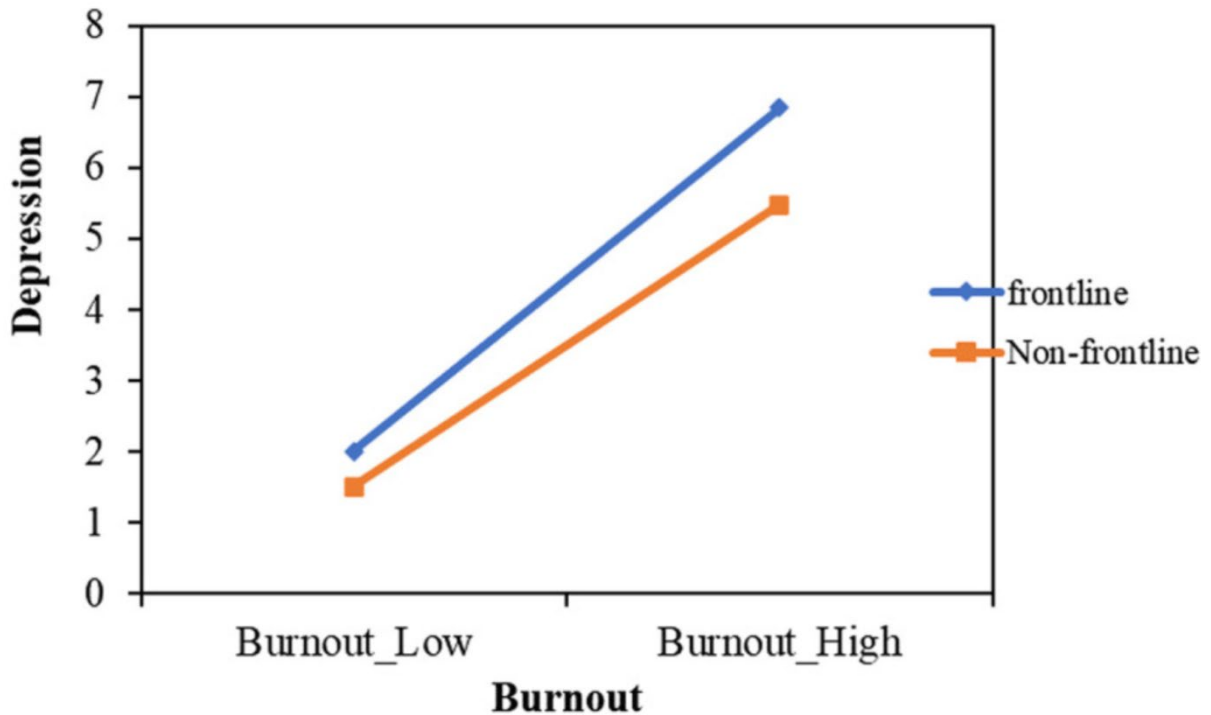


Figure 2. Shows a positive relationship between Burnout and Depression. Wang et al. 2023

3.4 Patient Safety and Quality of Care

Not only will there be difficulties with staffing shortages, recruitment, and burnout, but the patient experience will suffer. Nurses who experience burnout can encounter increased levels of both mental and physical exhaustion, which makes it more challenging for them to give patients the specialized care they need. Therefore, it may result in a decrease in patient satisfaction and hinder the development of a valuable trusting connection between a nurse and a patient. Second, inadequate staffing levels can strain the remaining nurses, as they are more likely to oversee greater patient-to-nurse ratios. Consequently, rushed decisions, errors that result in mediocre care, and a lack of time for treating each patient individually can all compromise patient safety. Third, staff turnover can arise from the combination of shortages and burnout among nurses. The ongoing hiring and onboarding of new staff members compromises the consistency of care since it involves time for each newly recruited nurse to become acclimated to their new job, comprehend patient histories, and create personalized care plans. This care inconsistency can result in mistakes, which could have a negative impact on patient outcomes (Tamata et al., 2022).

The American Nursing Foundation (ANF) performed an extensive survey to determine what the nurses desire in order to stay within the healthcare industry to continue providing outstanding patient care. Looking at the data in Figure 3, the responses from the nurses didn't come as much of a surprise. They really shed light on what truly matters for creating better work environments. Among the priorities, three answers came out on top. Going off the top 3, 68% of nurses want higher compensation, 59% stress the need for enough staff for nurses and support roles, and 31% want to feel heard so their needs can be met. These findings highlight what's essential to keep experienced nurses onboard and ensure patients receive quality care.

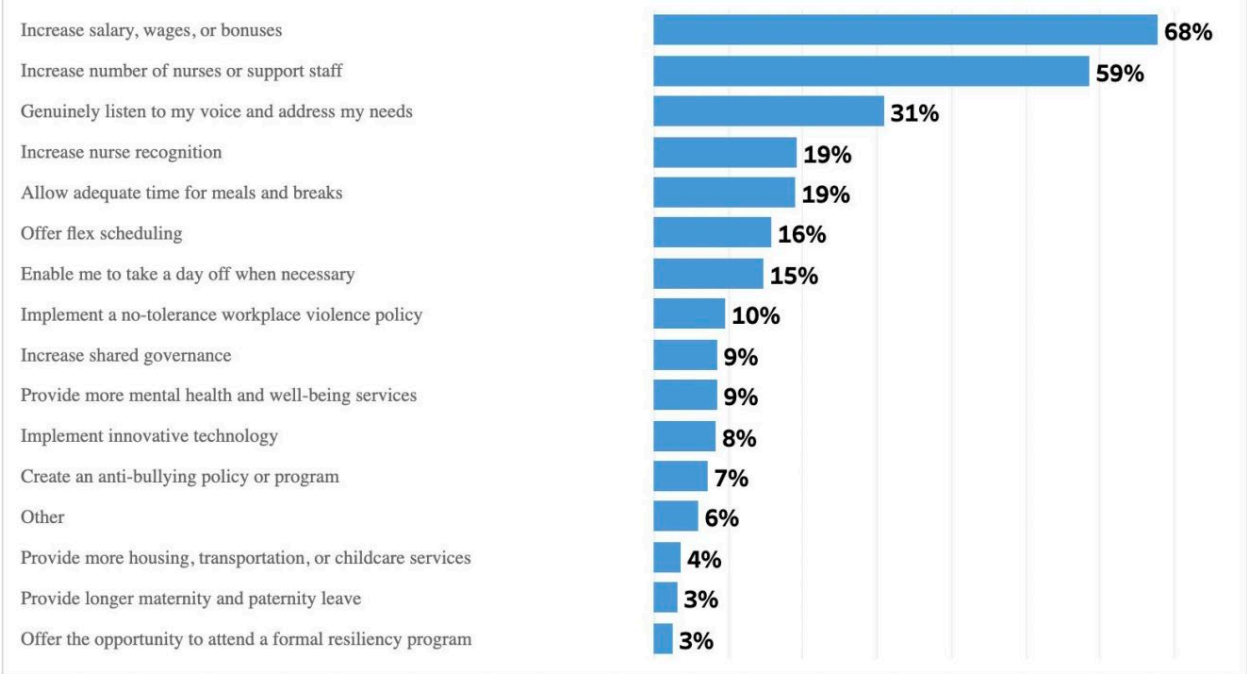


Figure 3. Response from nurses on how their organization can improve satisfaction. ANF, 2022

4.0 Optimization Strategies to Improve Nursing Workforce

Considering the never-ending range of duties and obligations that the nursing profession continuously bears, major problems were bound to arise in the nursing community. The healthcare sector must quickly develop and implement strategic solutions to improve and meet the demands of the nursing staff. While patient care rightfully remains the top priority in the healthcare sector, it is equally crucial to invest in the well-being and professional satisfaction of healthcare workers. Failure to address these issues directly jeopardizes the patient experience due to a workforce shortage of nurses. Therefore, it becomes essential for the healthcare industry to proactively address the challenges faced by the nursing workforce such as burnout and retention.

4.1 Reducing Nursing Burnout and Improving Retention

4.1.1 Partnerships with Educational Institutions

The success and professional development of nurses are largely dependent on educational institutions. Nursing programs and healthcare organizations can benefit from fostering a robust academic-clinical relationship. Through a symbiotic exchange of knowledge, resources, and practical experiences, the synergy between academic institutions and healthcare settings serves as a catalyst for increasing the standards of nursing education and, consequently, the standards of patient care (Paton et al., 2022). These partnerships have an opportunity to guarantee the long-term stability of the nursing workforce while simultaneously improving patient outcomes due to

the education provided. Through relationships with healthcare facilities, opportunities for connections can also be beneficial to nursing students. By engaging with experts in the field, students will be able to develop a mentor-mentee relationship. Students will have the chance to use the mentorship for the purposes of professional growth, career counseling, and gaining an understanding of everyday aspects of nursing practice (Beal, 2012). In addition to improving academic services, partnerships with educational institutions may benefit students financially by possibly lowering tuition through tuition discounts or scholarships. Partnerships enable this kind of financial aid, which significantly raises the affordability and accessibility of education. Thus, students won't be stressed financially and will be able to focus on their education and career development with greater confidence. The Community College of Allegheny County (CCAC) and the University of Pittsburgh Medical Center (UPMC) worked together to establish a Respiratory Therapy Program Partnership. Students in this program will receive \$6,000 in tuition support, a guaranteed position at UPMC upon graduation, and a sign-on bonus (CCAC, 2022). Being in a partnership makes it a strategic move to utilize it as a pipeline for expanding the existing nursing workforce, thereby aiding in the fight against nursing shortages that could lead to burnout. As time progresses, these nurses have the potential to blossom into the leaders of the future academic-clinical collaborations, serving as mentors and educators to the future nursing workforce.

4.1.2 Mental Health

In the dynamic landscape of healthcare, nurses consistently face pressure to deliver the highest quality of care. Emphasizing the importance of nurses' mental well-being can foster a supportive and enduring environment. Healthcare institutions can introduce mental health initiatives offering access to counseling services, support groups, and confidential reporting

systems. Counseling services help nurses process trauma, raise professional growth, and enhance communication skills. Counseling can also promote a positive work atmosphere by providing a helpful channel for resolving conflicts between healthcare teams. Early detection of mental health struggles is made possible by the awareness that counseling check-ins generate, which in turn facilitates prompt intervention and assistance (Madeson, 2021). Support groups create a sense of community, reduce stigma around mental health, and contribute to job satisfaction and retention. Given that some nurses lack personal support networks like family or close friends, providing such programs and services becomes essential. The importance of a confidential reporting system stems from the fact that it promotes open communication about issues that individuals may not otherwise feel comfortable bringing up. It can assist in overcoming reporting barriers and communicating with staff members appropriately, which will boost morale and demonstrate competence in safety to the rest of the healthcare organization. By keeping the names private, that could encourage more people to voice their concerns (CIRAS, 2022).

4.1.3 Leadership and Recognition/Awards

Leadership and recognition play pivotal roles in shaping a positive and productive workplace environment. Competent leadership serves as a source of motivation, to inspire employees, and encourage team building. When leaders acknowledge and appreciate their employee's contributions, it boosts morale and enhances commitment to the organization, which can lead to increased productivity and job satisfaction. The retention and loyalty of employees are significantly influenced by effective leadership, as individuals are inclined to remain committed to an organization that acknowledges and backs them, facilitating their personal and professional growth to the utmost extent. To continue motivating nurses and recognize their exceptional

achievements, leadership should thoughtfully utilize awards and incentives. Providing rewards such as gift cards or other tangible items is a clear expression of gratitude for their dedication and effort. These awards contribute to building a culture that actively acknowledges and encourages excellence, emphasizing both individual and group accomplishments. This strategy illustrates the healthcare organization's commitment to recognizing and appreciating the critical role that nurses play in patient care. (Robins, 2019). Therefore, rewards and recognition play an important role in validating their efforts, relieving stress, facilitating a sense of belonging, and increasing job satisfaction and motivation. Recognition and awards establish a positive feedback loop that improves emotional well-being and self-confidence, lowering the risk of burnout in the long term (Flaubert et al., 2021).

Some words of affirmation and recognition to motivate nurses can include:

- Thank you for your hard work and tireless efforts in delivering exceptional patient care.
- Thank you for being an essential part of our team. Your dedication, skill, and compassion elevate our healthcare community every day.
- Your skills make a substantial difference in the lives of those under your care, and for that, we are incredibly grateful.
- The care and kindness you extend to patients and colleagues alike are a testament to your extraordinary character. Thank you for your service.

4.1.4 Work-Life Balance

Work-life balance is especially important for nurses since it has a substantial effect on their retention rate, burnout rate, and job satisfaction. A healthy work-life balance increases a nurse's

capacity to stay focused and efficiently perform their duties, which increases the likelihood that they will provide patients with high-quality care. (Kheiri et al., 2021). A highly effective approach involves adopting flexible scheduling. Essentially, the freedom to determine one's own work hours enables nurses to achieve an improved work-life balance, a crucial aspect in a field with frequently hectic and demanding schedules. This flexibility improves the overall well-being of nurses because it allows them to schedule time for self-care, family needs, exercise, and health-related needs. Based on an analysis of 437 participant nurse responses, Lee and Chang found a high positive correlation between work flexibility and satisfaction. Additionally, they identified a weak negative correlation between burnout and both satisfaction and work flexibility (Lee and Chang, 2022). This encourages the development of a workforce that places a high value on taking care of others in addition to their own health. As a bonus, offering flexibility to employees makes a position more appealing and helps retain qualified and experienced staff members in an era where workers value work-life balance more than ever before. In the long run, having a flexible schedule allows nurses to take charge of their professional lives, which promotes engagement and accountability. It supports a positive corporate culture, considers the varied needs of nursing staff, and presents the company as a welcoming and encouraging place to work.

4.1.5 Compensation

Although it was mentioned briefly, increased job compensation is essential for employee satisfaction, motivation, and retention. According to a SHRM research report, income has become one of the primary drivers influencing job satisfaction among American workers. In 2013, 60% of employees rated compensation as “very important,” making it the leading factor, up from the third position in 2012 (SHRM, 2014). Nurses that tackle high workloads deserve higher compensation

because they are under constant pressure to deliver excellent health care. A higher salary attracts and maintains talent because it provides financial stability, which can impact the quality of life for employees. As a result, they will be encouraged to consistently deliver the best patient care to ensure competitive pay.

4.1.6 Artificial Intelligence

The introduction of artificial intelligence (AI) was a great step towards advancement in modern technology that can potentially impact healthcare in a positive direction. AI refers to computer systems capable of performing tasks that would require a person such as learning, problem-solving, and decision-making. Although slowly integrating into the healthcare field, artificial intelligence has emerged as a promising solution to reduce burdens on nursing professionals and address factors contributing to burnout. AI provides the opportunity to decrease nursing administrative tasks so they can spend more time coordinating patient care. This improves patient-focused activities and simplifies their workflow. It also plays a major role in enhancing medical records by organizing electronic medical records (EMRs) for easy accessibility by nurses and other medical professionals. As the adoption of EMRs and digitized medical devices increases, AI addresses the need to efficiently manage and provide essential patient-related information within expanding hospital databases (Pailaha, 2023). By evaluating patient data, artificial intelligence facilitates clinical decision-making by providing insightful data that helps nurses make well-informed decisions about patient care. AI lowers the possibility of mistakes and improves overall outcomes for patients.

5.0 Conclusion

In conclusion, nursing burnout is a complex and widespread issue in the healthcare industry that requires attention and effective solutions. Although stress and high workloads will consistently exist due to the nature of the nursing profession, strategies like workload management, mental health support, and a positive work culture can contribute to reducing burnout among nurses. Healthcare organizations that are committed to addressing the root cause of nursing burnout will be much further ahead in the industry. Investing in their own workforce not only improves the health and happiness of their healthcare professionals, but it also influences the effectiveness of the healthcare system. By setting the standard of an excellent nursing model, other health systems may follow suit in the hopes of providing a safer environment for their own organizations.

Bibliography

- AACN. (n.d.). *Fact Sheets*. American Association of Colleges of Nursing. Retrieved January 3, 2024, from <https://www.aacnnursing.org/news-data/fact-sheets>
- ANF. (2022, July 26). *COVID-19 Survey Series: Workplace Impact Survey*. ANA. <https://www.nursingworld.org/practice-policy/work-environment/health-safety/disaster-preparedness/coronavirus/what-you-need-to-know/covid-19-survey-series-anf-2022-workplace-survey/>
- Ayers, R. (2023, December 10). *Breakthroughs in AI Are Helping to Prevent Nurse Burnout*. <https://www.smartdatacollective.com/>.
<https://www.smartdatacollective.com/breakthroughs-in-ai-are-helping-to-prevent-nurse-burnout/>
- Beal, J. A. (2012). Academic-Service Partnerships in Nursing: An Integrative Review. *Nursing Research and Practice*, 2012, 501564. <https://doi.org/10.1155/2012/501564>
- CCAC. (n.d.). *CCAC and UPMC Establish Respiratory Therapy Program Partnership To Help Fill Therapist Shortage*. Retrieved January 2, 2024, from <https://www.ccac.edu/newsroom-and-marketing/ccac-newsroom/02-23-22-ccac-and-upmc-establish-respiratory-therapy-program-partnership-to-help-fill-therapist-shortage.php>
- CIRAS. (n.d.). *What is confidentiality and why is it important?* Retrieved January 4, 2024, from <https://www.ciras.org.uk/Whats-New/Articles/What-is-confidentiality-and-why-is-it-important>
- de Cordova, P. B., Johansen, M. L., Grafova, I. B., Crincoli, S., Prado, J., & Pogorzelska-Maziarz, M. (2022). Burnout and intent to leave during COVID-19: A cross-sectional study of New Jersey hospital nurses. *Journal of Nursing Management*, 10.1111/jonm.13647. <https://doi.org/10.1111/jonm.13647>
- Doleman, G., De Leo, A., & Bloxsome, D. (n.d.). *The impact of pandemics on healthcare providers' workloads: A scoping review—Doleman—2023—Journal of Advanced Nursing—Wiley Online Library*. Retrieved December 8, 2023, from <https://onlinelibrary.wiley.com/doi/10.1111/jan.15690>
- Galanis, P., Vraka, I., Fragkou, D., Bilali, A., & Kaitelidou, D. (n.d.). *Nurses' burnout and associated risk factors during the COVID-19 pandemic: A systematic review and meta-analysis—PMC*. Retrieved December 8, 2023, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8250618/>

- García-Vivar, C., Rodríguez-Matesanz, I., San Martín-Rodríguez, L., Soto-Ruiz, N., Ferraz-Torres, M., & Escalada-Hernández, P. (2023). Analysis of mental health effects among nurses working during the COVID-19 pandemic: A systematic review. *Journal of Psychiatric and Mental Health Nursing*, 30(3), 326–340. <https://doi.org/10.1111/jpm.12880>
- Ge, M.-W., Hu, F.-H., Jia, Y.-J., Tang, W., Zhang, W.-Q., Zhao, D.-Y., Shen, W.-Q., & Chen, H.-L. (2023). COVID-19 pandemic increases the occurrence of nursing burnout syndrome: An interrupted time-series analysis of preliminary data from 38 countries. *Nurse Education in Practice*, 69, 103643. <https://doi.org/10.1016/j.nepr.2023.103643>
- Gorman, S. (n.d.). *Kaiser Permanente resumes talks with healthcare workers union week after strike* | Reuters. Retrieved December 8, 2023, from <https://www.reuters.com/business/healthcare-pharmaceuticals/kaiser-permanente-resumes-talks-with-healthcare-workers-union-week-after-strike-2023-10-13/>
- Kheiri, M., Gholizadeh, L., Taghdisi, M. H., Asghari, E., Musavi, M., Mahdavi, N., & Ghaffari, S. (2021). Factors affecting the quality of work-life of nurses: A correlational study. *Journal of Research in Nursing*, 26(7), 618–629. <https://doi.org/10.1177/17449871211023802>
- Kilmer, L. (n.d.). *Nurses, local leaders gather for rally amid AHN contract negotiations – WPXI*. Retrieved December 8, 2023, from <https://www.wpxi.com/news/local/nurses-local-leaders-gather-rally-amid-ahn-contract-negotiations/PV7AQBLT3ZEIPDLA3CHWFD4464/>
- Kilmer, L. (2023, November 3). *Strike averted as AGH nurses receive raises, protections in ratified contract*. WPXI. <https://www.wpxi.com/news/local/strike-averted-agh-nurses-receive-raises-protections-ratified-contract/1EJSCMOJIFCGBJBQVQ2HLFY4YQ/>
- Lee, H.-F., & Chang, Y.-J. (2022). The Effects of Work Satisfaction and Work Flexibility on Burnout in Nurses. *The Journal of Nursing Research: JNR*, 30(6), e240. <https://doi.org/10.1097/jnr.0000000000000522>
- Madson, M. (2021, April 23). *The Importance of Counseling: 14 Proven Benefits of Therapy*. PositivePsychology.Com. <https://positivepsychology.com/why-counseling-is-important/>
- Martin, B., Kaminski-Ozturk, N., O'Hara, C., & Smiley, R. (2023). Examining the Impact of the COVID-19 Pandemic on Burnout and Stress Among U.S. Nurses. *Journal of Nursing Regulation*, 14(1), 4–12. [https://doi.org/10.1016/S2155-8256\(23\)00063-7](https://doi.org/10.1016/S2155-8256(23)00063-7)
- Miller, S. (n.d.). *Why Pay Is Driving Employee Satisfaction*. Retrieved January 7, 2024, from <https://www.shrm.org/topics-tools/news/benefits-compensation/pay-driving-employee-satisfaction>
- National Academies of Sciences, E., Medicine, N. A. of, Nursing 2020–2030, C. on the F. of, Flaubert, J. L., Menestrel, S. L., Williams, D. R., & Wakefield, M. K. (2021). Supporting the Health and Professional Well-Being of Nurses. In *The Future of Nursing 2020-2030*:

- Charting a Path to Achieve Health Equity*. National Academies Press (US). <https://www.ncbi.nlm.nih.gov/books/NBK573902/>
- Pailaha, A. D. (2023). The Impact and Issues of Artificial Intelligence in Nursing Science and Healthcare Settings. *SAGE Open Nursing*, 9, 23779608231196847. <https://doi.org/10.1177/23779608231196847>
- Paton, E. A., Wicks, M., Rhodes, L. N., Key, C. T., Day, S. W., Webb, S., & Likes, W. (2022). Journey to a new era: An innovative academic-practice partnership. *Journal of Professional Nursing*, 40, 84–88. <https://doi.org/10.1016/j.profnurs.2022.03.006>
- Pressley, C., & Garside, J. (2023). Safeguarding the retention of nurses: A systematic review on determinants of nurse's intentions to stay. *Nursing Open*, 10(5), 2842–2858. <https://doi.org/10.1002/nop2.1588>
- Putri, N., Melania, K., Fatmawati, S. M., & Lim, Y. C. (n.d.). *How does the work-life balance impact stress on primary healthcare workers during the COVID-19 pandemic? | BMC Health Services Research | Full Text*. Retrieved December 8, 2023, from <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-023-09677-0>
- Robbins, M. (2019, November 12). Why Employees Need Both Recognition and Appreciation. *Harvard Business Review*. <https://hbr.org/2019/11/why-employees-need-both-recognition-and-appreciation>
- Rosenstrauch, D. (2023, October 30). The Well-Being of Nurses during Artificial Intelligence In Healthcare. *Nursing CE Central*. <https://nursingcecentral.com/artificial-intelligence-in-healthcare/>
- Shah, M. K., Gandrakota, N., Cimiotti, J. P., Ghose, N., Moore, M., & Ali, M. K. (2021). Prevalence of and Factors Associated With Nurse Burnout in the US. *JAMA Network Open*, 4(2), e2036469. <https://doi.org/10.1001/jamanetworkopen.2020.36469>
- Tamata, A. T., & Mohammadnezhad, M. (2022). A systematic review study on the factors affecting shortage of nursing workforce in the hospitals. *Nursing Open*, 10(3), 1247–1257. <https://doi.org/10.1002/nop2.1434>
- Udod, S. (2023). A Call for Urgent Action: Innovations for Nurse Retention in Addressing the Nursing Shortage. *Nursing Reports*, 13(1), 145–147. <https://doi.org/10.3390/nursrep13010015>
- UT Permian Basin. (n.d.). *Why Work-Life Balance Is Important for Nurses | UT Permian Basin Online*. Retrieved December 8, 2023, from <https://online.utpb.edu/about-us/articles/nursing/why-work-life-balance-is-important-for-nurses/>
- Wang, J., Huang, X., Wang, M., Huang, L., & Wang, Y. (2023). Depression and burnout among Chinese nurses during COVID-19 pandemic: A mediation and moderation analysis model among frontline nurses and nonfrontline nurses caring for COVID-19 patients. *BMC Psychiatry*, 23, 639. <https://doi.org/10.1186/s12888-023-05006-1>