Nurse Staffing and Staff Nurse Involvement in Hospital Staffing Governance: Explorations of Policy and Practice

A Dissertation Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Marissa P. Bartmess
May 2023

DEDICATION

To my husband, my best friend, and my stronghold of support, you are my treasure in this life. Never forget that. You were the one who encouraged me to pursue a Ph.D. from day one, even before I knew I wanted this. Thank you for believing in me and building me a stage to shine on. You are truly an incredible human being, and I am always amazed by your talents and the love you give. Many tears of joy and heartache have been poured into this journey. You have held me when the stress was too much and pushed me to go further when I was complacent. If everyone had a partner like you, more dreams would become a reality.

To my parents, grandparents, and siblings- thank you for always supporting my dreams and telling me I could do anything I set my mind to. Thank you for being understanding as I brought my laptop to countless family events and worked in between our time together. Thank you for loving me when I was a stressed-out, crying mess. I am incredibly blessed to have the love and support from my family, both biological and chosen.

To my God. Thank you for showing up in supernatural splendor as I completed this journey. Thank you for giving me hope. I pray that all my work can be used to help, serve, and uplift others; to combat inequity and oppression. As I take this next step, I pray for my mind to stay open, my heart to be kind, and my spirit to be strong.

ACKNOWLEDGEMENTS

To Dr. Carole Myers- Words cannot begin to describe the impact you have had on my educational and professional journey. Thank you for being an incredible mentor and teacher and pushing me toward excellence. Thank you for sharing your critical thinking skills and wisdom. You have always been one email or phone call away, and that level of support has meant the world to me. Thank you for gifting me with your time, attention, and care. I am a better scientist and leader because of your investment in me.

To Dr. Sandra Thomas- As I applied to graduate schools years ago, I noticed that some Ph.D. programs wanted to put me in a "box." My interview with you was like a breath of fresh air. You never tried to put me in a "box." Even if I didn't know where I was going just yet, you supported my passion for this profession and told me that I could be anything I wanted to be. Thank you for teaching me and for your constant encouragement and support.

To my entire dissertation committee: Dr. Carole Myers, Dr. Sandra Thomas, Dr. Pamela Hardesty, and Dr. Kate Atchley- Thank you so much for your time and guidance. Thank you for taking this journey with me; for supporting me when I reach the top of a hill, and for helping me climb out of the valleys. I am so thankful to have had a committee of intelligent, resourceful women teaching me to blaze trails rather than walk on them.

To fellow UTK Ph.D. in Nursing students Sandy Cobb, Lauren Muñoz, and Karina Strange- Thank you all for being such wonderful friends and always being there to help me wade through academic waters. I am so thankful for you all and the lifelong friendships we share.

ABSTRACT

Researchers have identified links between adequate nurse staffing in hospital settings and patient outcomes for decades. However, nurse staffing continues to be a prevalent issue within nursing and healthcare communities, with nurses citing inadequate staffing as a reason for leaving hospital settings. There are several factors to consider when staffing nurses for quality patient care in hospital settings. However, supporting nurse autonomy over staffing decision-making is a means by which multiple staffing factors can be addressed. This dissertation explores how staff nurses describe involvement with hospital staffing decision-making and their experiences with this phenomenon in practice through a specific means for involvement, nurse staffing committees (NSCs). For staff nurses, involvement with staffing decision-making largely depended on whether they had access to mechanisms for involvement (Chapter Three), an effective means of involvement (Chapter Four), and a workplace culture that valued their contributions (Chapters Three and Four). This dissertation identified that performative, inauthentic shared governance practices from hospital leaders could contribute to nurse dissatisfaction and less involvement with staffing-decision making. There are opportunities to strengthen staff nurse involvement with hospital staffing decision-making through NSCs. Still, the nurse perceived value of NSCs is contingent on how well NSCs function and whether nurses feel their efforts and recommendations to improve staffing are valued.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1: INTRODUCTION

Nurse staffing has been a contentious issue in hospital settings for years (Abdellah & Levine, 1958; Lasater et al., 2021). In the United States, where hospital systems are a mix of profit and non-profit with varying degrees of federal or state funding, the focus of nurse staffing shifts between different stakeholder groups relative to the quality of nursing care, patient outcomes related to nurse staffing, the cost of nursing care, and the well-being of nurses (Lasater et al., 2021). Nurse staffing involves multiple of considerations, including but not limited to the number of nurses available, how many patients per nurse (i.e., nurse: patient ratios), the severity of patients' health conditions (acuity), patient turnover (admissions/discharges), a nurse's education, scope of practice and expertise in caring for patient populations, and the degree to which a nurse has autonomy over patient care and the nursing environment (Bartmess et al., 2021; ICN, 2018).

Although there are many considerations when discussing nurse staffing in hospital systems, nurses are staffed in hospital settings first and foremost for the purpose of providing safe, evidence-based care to patients. Conflicts arise when the needs of patients are not met due to inadequate nurse staffing or when the needs of nurses are not met, which can contribute to poor patient care (Bartmess et al., 2022; Schlak et al., 2021). Inadequate staffing increases patients' risks of mortality and complications in hospital settings (Ball et al., 2018; Musy et al., 2021) and contributes to nurse burnout, which is dangerous for the health and well-being of nurses and the patients they care for (Schlak et al., 2021). Although the focus of this dissertation is situated on the topic of nurse staffing in hospital settings, nurses can be staffed in a variety of care environments and the implications of this dissertation can likely resonate with nurse staffing in other areas, such as skilled nursing facilities. The nursing profession exists to promote the health and well-being of individuals across the life span and to participate in evidence-based care

(ICN, 2002). Inadequate nurse staffing severely limits nurses' abilities to provide holistic, evidence-based care (ICN, 2018). Thus, inadequate staffing in hospital settings and beyond, threatens both the safety and wellbeing to those in need of heath care as well as the profession's purpose and as such should be a priority for nurses, patients, and other stakeholders in U.S. health care systems.

Nurse Staffing: Where do we begin?

As previously mentioned, achieving adequate nurse staffing in hospital settings involves a multitude of considerations. However, one staffing factor encompasses the frequent evaluation of all staffing factors: nurse autonomy. Nurse autonomy conceptually relates to staff nurses' abilities to utilize their nursing knowledge and act upon their knowledge in a meaningful way. For staff nurses, this can include making patient-care related decisions during their shift or being involved in the policy making and/or decision-making processes that govern patient care (Kramer et al., 2006; Pursio et al., 2021). Nurse autonomy can also affect patient outcomes. In a patient risk and hospital-adjusted analysis, a one-point increase on a nurse autonomy scale decreased the chances of patient mortality by 19% and failure-to-rescue by 17% (Rao et al., 2017). Additionally, when nurses are involved with policy-making decisions that govern patient care, hospitals may be less likely to receive poor patient safety scores (Brooks Carthon et al., 2019). Typically, when nurses are empowered to act upon their nursing knowledge and be involved in decision-making processes, researchers have identified improvements in patient safety, patient satisfaction, and patient care efficiency (Goedhart et al., 2017). Additionally, less control over the nursing work environment and limited decisional involvement have been linked to higher incidences of nurse burnout, which can contribute to poor patient and nursing workforce outcomes (Dall'Ora et al., 2020; Schlak et al., 2021).

Three dimensions of autonomy have been identified by Kramer et al (2006): clinical/practice autonomy (i.e., making immediate decisions for patient care in the clinical environment), control over nursing practice (i.e., where nurses are involved in decision-making and policy developments that affect patients and nurses), and unit-level autonomy (where nurses work as a team to make day-to-day decisions for the functioning and organization of their units). Although supporting nurse autonomy is known to improve patient outcomes (Rao et al., 2017), less is known about how abstract concepts like nurse autonomy are exemplified in state-level nurse staffing policy and/or practice. This 3-part manuscript dissertation is conceptually situated within the autonomy dimensions of control over nursing practice and, to some extent, unit-level autonomy as we explore state-level nurse staffing policy and staff nurse involvement in hospital staffing policymaking.

Manuscript Overview

This dissertation explores the intersections between nurse staffing, staff nurse involvement in hospital staffing policymaking, and nurse staffing state-level policy. We begin with a narrative review of nurse staffing literature and state-level policy analysis. Nurse staffing is a complex issue with several stakeholders and over the last twenty years, state-level policies have been put in place to address the issue of inadequate nurse staffing. However, there were limited resources to inform nurses how nurse staffing evidence (involving more than one staffing factor) and staffing policy could be evaluated to promote positive patient outcomes with considerations of cost and political feasibility. The first manuscript addresses this gap and also highlights the need for more research evaluating the impacts nurse staffing committee (NSC) legislation; legislation that requires hospitals to have staffing committees inclusive of staff/direct

care nurses who assist in the creation of staffing plans and/or provide nurse staffing guidance (ANA, n.d.).

The second manuscript looks at the concept of staff nurse involvement in hospital staffing policymaking. Although nurse staffing committees have been promoted by nursing organizations to support staff nurse involvement in hospital staffing policymaking (ANA, 2018), we felt it was first necessary to explore how practicing nurses were presently involved in hospital staffing policymaking and to learn what hindered or supported this process. In this qualitative descriptive study, we identified the following themes: "We aren't asked": structural barriers to staff nurse involvement; "No one cares": workplace culture barriers to staff nurse involvement; and "'They' versus 'we'": lack of power sharing for staffing decision making. Nurses described feeling powerless and having little to no involvement in hospital staffing policymaking, but they also expressed desire to be engaged in this process and offered suggestions for how nurse involvement in such policymaking could be improved, such as by the means of nurse staffing committees, unions, and anonymous hospital surveys to elicit nurse feedback on staffing. This study confirmed that nurse staffing committees (NSCs) are an option regarded by practicing nurses as a possible solution to strengthen their involvement in hospital staffing policymaking. Thus, further exploration of NSCs was warranted.

In the last manuscript, we explored the experiences of nurses who have served on NSCs in states that have had some form of NSC legislation in place for at least three years. Four themes were identified: 1) A "well valued" committee versus the "potential [being] locked away": Committee value, 2) Who "benefits": Staffing committee beneficiaries, 3) "Not just the numbers": Defining "adequate staffing," and 4) "Constantly pushing": Committee members' persistence. We identified that nurses saw tremendous potential for NSCs to benefit patients,

nurses, and hospital organizations; however, they also described how committees could face obstacles that "locked away" the potential of committees to make effective change. Altogether, the three manuscripts tell a story of why we should invest in improving nurse staffing via nurse autonomy measures, both for the sake of quality patient care and the health of the nursing workforce, and how nurse involvement in hospital staffing policymaking can be improved through practice and policy changes.

References

Abdellah, F. G., Levine, E., United States. Public Health Service. Division of Nursing. (1958*). Effect of nurse staffing on satisfactions with nursing care: a study of how omissions in nursing services, as perceived by patients and personnel, are influenced by the number of nursing hours available*. Chicago: American Hospital Association.

American Nurses Association (ANA). (2018, February 22nd). *ANA applauds nurse staffing legislation*. https://www.nursingworld.org/news/news-releases/2018/ana-applauds-nurse-staffing-legislation/

American Nurses Association (ANA). (n.d.). Advocating for safe staffing. https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-advocacy/

Bartmess, M.P., Myers, C.M., & Thomas, S.P. (2022). 'It Would Be Nice to Think We Could Have a Voice': Exploring RN Involvement in Hospital Staffing Policymaking. *American Journal of Nursing*, *122*(10), 22-31. https://doi.org/10.1097/01.NAJ.0000884564.75005.a9

Bartmess, M., Myers, C. R., & Thomas, S. P. (2021). Nurse staffing legislation: Empirical evidence and policy analysis. *Nursing Forum*, *56*(3), 660–675. https://doi.org/10.1111/nuf.12594

Brooks Carthon, J. M., Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., Sanders, A. M., Visco, F., Holland, S., Ballinghoff, J., Del Guidice, M., & Aiken, L. H. (2019). Association of nurse engagement and nurse staffing on patient safety. *Journal of nursing care quality, 34(*1), 40–46. https://doi-org.utk.idm.oclc.org/10.1097/NCQ.0000000000000334

Dall'Ora, C., Ball, J., Reinius, M., & Griffiths, P. (2020). Burnout in nursing: a theoretical review. *Human Resources for Health, 18*(1), 41–41. https://doi.org/10.1186/s12960-020-00469-9

Goedhart, N., van Oostveen, C., & Vermeulen, H. (2017). The effect of structural empowerment of nurses on quality outcomes in hospitals: A scoping review. *Journal of Nursing Management, 25*(3), 194–206. https://doi.org/10.1111/jonm.12455

International Council of Nurses (ICN). (2018). *Evidence-based safe nurse staffing: position statement*. https://www.icn.ch/sites/default/files/inline-files/PS_C_%20Evidence%20based%20safe%20nurse%20staffing_1.pdf

International Council of Nurses (ICN). (2002). *Nursing definitions*. https://www.icn.ch/nursing-policy/nursing-definitions

Kramer, M., Maguire, P., & Schmalenberg, C. (2006). Excellence through evidence: the what, when, and where of clinical autonomy. *The Journal of Nursing Administration, 36*(10), 479–491. https://doi.org/10.1097/00005110-200610000-00009

Lasater, K., Aiken, L. H., Sloane, D., French, R., Martin, B., Alexander, M., & McHugh, M. D. (2021). Patient outcomes and cost savings associated with hospital safe nurse staffing legislation: an observational study. BMJ Open, 11(12), e052899–e052899. https://doi.org/10.1136/bmjopen-2021-052899

Musy, S. N., Endrich, O., Leichtle, A. B., Griffiths, P., Nakas, C. T., & Simon, M. (2021). The association between nurse staffing and inpatient mortality: A shift-level retrospective longitudinal study. International journal of nursing studies, 120, 103950. https://doi.org/10.1016/j.ijnurstu.2021.103950

Pursio, K., Kankkunen, P., Sanner-Stiehr, E., & Kvist, T. (2021). Professional autonomy in nursing: An integrative review. *Journal of nursing management, 29*(6), 1565–1577. https://doi.org/10.1111/jonm.13282

Rao, A. D., Kumar, A., & McHugh, M. (2017). Better nurse autonomy decreases the odds of 30-day mortality and failure to rescue. *Journal of Nursing Scholarship, 49*(1), 73–79. https://doi.org/10.1111/jnu.12267

Schlak, A. E., Aiken, L. H., Chittams, J., Poghosyan, L., & McHugh, M. (2021). Leveraging the Work Environment to Minimize the Negative Impact of Nurse Burnout on Patient Outcomes. *International journal of environmental research and public health, 18*(2), 610. https://doi.org/10.3390/ijerph18020610

CHAPTER 2: NURSE STAFFING LEGISLATION: EMPIRICAL EVIDENCE AND POLICY ANALYSIS

This chapter was originally published by Marissa P. Bartmess, Carole R. Myers, and Sandra P. Thomas. Marissa P. Bartmess served as lead author on the article responsible for content, policy analysis, writing, editing, and journal submission. Dr. Myers was responsible for assisting with written material about policy, providing policy analysis guidance to Marissa Bartmess, and reviewing the manuscript for completeness. Dr. Thomas was responsible for reviewing the manuscript for completeness and editing.

Bartmess, M., Myers, C. R., & Thomas, S. P. (2021). Nurse staffing legislation: Empirical evidence and policy analysis. *Nursing Forum*, *56*(3), 660–675. https://doi.org/10.1111/nuf.12594

Abstract

Unsafe nurse staffing conditions in hospitals have been shown to increase the risk of adverse patient events, including mortality. Consequently, United States and international professional nursing organizations often advocate for safer staffing conditions. There are a variety of factors to consider when staffing nurses for patient safety, such as the number of patients per nurse, nurse preparation, patient acuity, and nurse autonomy. The complex issue of staffing nurses often is compounded by cost issues and can become politicized. When nurse organizations' recommendations for safe staffing measures are disregarded by hospital administrations, nurse lobbyists and interest groups often pursue legislative action to protect patients and nurses from unsafe staffing conditions. This article presents a narrative review of safe nurse staffing factors and an analysis of nurse staffing legislation. Using a patient-centric lens, three state-level nurse staffing policies (mandated nurse-to-patient ratios, public reporting of staffing plans, and nurse staffing committees) were evaluated by empirical evidence, cost to hospitals and state governments, political feasibility, and potential to affect patient populations.

Although nurse staffing policy analysis can be conducted in several ways, it is crucial that nurses consider empirical evidence related to staffing policies as well as evaluations of implemented policies and political influences.

Keywords: evidenced-based, nurse staffing, patient safety, policy

Hospital nurse staffing has been researched for decades because it can directly affect patient care quality (Abdellah & Levine, 1958; Ball et al., 2018; Blegen et al., 1998). However, research is not the only factor driving nurse staffing processes. The authority to enact nurse staffing public policy often rests with U.S. state legislatures and, to some extent, the U.S. Centers for Medicare and Medicaid (CMS) (Administrative Committee of the Federal Register, 2021). To analyze nurse staffing policies effectively for the sake of positive patient outcomes, nurse leaders, state legislators, and hospital administrators must consider multiple perspectives and factors. The purpose of this paper is to provide (1) a narrative review of 4 nursing staffing factors (nurse-to-patient ratios, nurse preparation, patient acuity, and nurse autonomy); (2) an analysis of state-level nurse staffing policy options; and (3) an assessment of nursing staffing policy options that reflects the circumstances and complexity of the policy-making process.

We regard the term 'nurse staffing' as more than just the literal act of staffing an agency by a certain number. In this paper, nurse staffing encompasses how nurses are assigned to patients, how many nurses are staffed, and nurse staffing factors that can affect patient outcomes. This narrative review of the literature and subsequent policy analysis utilizes a patient-centric lens. While nurse staffing factors, such as nurse-to-patient ratios, can also affect the well-being of nurses (Garcia et al., 2019; Morley et al., 2019; Schlak et al., 2021), this review and analysis focuses on outcomes relative to patients rather than nurses. An overall goal of this paper is to encourage readers to review nurse staffing empirical evidence to inform their perspectives as they engage with nursing organizations, hospital organizations, and state legislatures for nurse staffing policy. This policy analysis is not a client-directed or single stakeholder analysis, which is why this analysis will not include a policy recommendation. In lieu of a policy

recommendation, we offer nurse staffing policy principles that can aid nurses as they review and lend their support to state-level nurse staffing policy options.

Background

Appropriate nurse staffing in hospital settings is a crucial component of patient care, as patients lacking sufficient nursing care are at higher risk for adverse events (e.g., nosocomial infections, falls, and even mortality) (Ball et al., 2018). While research consistently highlights the importance of sufficient nurse staffing levels (Abdellah & Levine, 1958; Ball et al., 2018; Blegen et al., 1998), the process of staffing nurses in hospital settings is more complex than solely acting on evidentiary support.

Nurse leaders, state legislators, and hospital administrators need to acknowledge how complex economic and social forces can influence this issue. While wage increases and decreases can alter hospital nurse supply (Condliffe & Link, 2016; Hanel at al., 2014), low-quality work environments—often characterized by poor staffing—also negatively affect nurses and their patients (Sloane et al., 2018). For example, nurses taught to maintain patient safety and high care standards can become morally distressed or burned out when they cannot do so because of poor work environments (Garcia et al., 2019; McAndrew et al., 2018; Morley et al., 2019; Zuzelo, 2007). Furthermore, nurses in such environments may choose to leave the hospital setting, which may contribute to nurse shortages that can adversely affect patient outcomes (Garcia et al., 2019; Rosseter, 2020).

Nurses who are treated like commodities in a supply and demand system rather than qualified, respected healthcare professionals may join professional organizations that lobby for laws to protect their workspaces from becoming unsafe for patients (National Nurses United, 2021; Tung, 2019). While it may seem drastic for professional nurses to seek legislated nurse-to-

patient ratios rather than working with individual hospital administrations to determine safe staffing plans, pursuing legislative action often is the result of nurse recommendations being disregarded by hospital administrations (Gray, 2015, Thayer, 2019; Tung, 2019). Given such circumstances and that patient outcomes are at stake (Ball et al., 2018), it is essential that nurses are engaged with nurse staffing legislation and nurse staffing policy making efforts.

While all U.S. hospitals participating in federal Medicare programs are required to have *adequate numbers* of nurses to provide patient care, this vague term remains open to interpretation in the absence of state laws providing concrete legislative language (Administrative Committee of the Federal Register, 2021). Despite limited research designating optimum nurse-to-patient ratios for all hospital situations, research suggests that lower nurse-to-patient ratios (i.e., 1 nurse: 5 patients vs. 1 nurse: 8 patients) are associated with better patient outcomes (Abdellah & Levine, 1958; Ball et al., 2018; Blegen et al., 1998; Aiken et al., 2002). In fact, increasing nurse availability to their patients, which occurs with lower nurse-to-patient ratios, has been linked to higher survival rates for hospitalized patients (Aiken et al., 2002; West et al., 2014).

Conversely, as nurse-to-patient ratios increase, so do patients' risks for poor outcomes. For example, across countries and varying health care systems, adding one additional patient to a nurse's assignment has resulted in a 7% increase in 30-day mortality risk (Aiken et al., 2002; Ball et al., 2018). Similar research conducted within New York state has also shown that an additional patient added to a nurse's assignment can increase patients' risk for in-patient mortality by 19% (OR 1.19; CI 1.10-1.29) (Lasater et al., 2020). Researchers have also identified racial disparities when nurse workloads increase. Brooks Carthon et al. (2021) found that, while adding additional patients to a nurse's assignment increased mortality risk for all

patients, Black patients experienced higher odds of mortality (OR=1.10) compared to their white counterparts (OR=1.03).

Although the nurse-to-patient ratio is a vital factor, achieving adequate nurse staffing for positive patient outcomes also involves considering the factors of nurse preparation, patient acuity, and nurse autonomy. The following narrative review of patient outcomes related to four key nurse staffing factors, which were selected with guidance by the International Council of Nurses' (ICN) 2018 evidence-based nurse staffing position statement (ICN, 2018), is an important first step in identifying evidence-informed nurse staffing policy.

Patient Outcomes Related to Nurse-to-Patient Ratios

Nurse-to-patient ratios define the maximum number of patients a nurse is required to care for at one time; as more patients are added to a nurse's assignment, the nurse-to-patient ratio increases. Patients benefit from lower ratios (fewer patients per nurse) and can be harmed by higher ratios (more patients per nurse), experiencing increased fall incidence, hospital-acquired infections, hospital-acquired pressure injuries, and length of stay (LOS) (Blegen et al., 2011; Brooks Carthon et al., 2012; Brooks Carthon et al., 2021; Coto et al., 2020; De Cordova et al., 2014; ICN, 2018; Jansson et al., 2019; Lasater et al., 2020; West et al., 2014). Higher nurse to-patient ratios have also been identified as a predictor of missed nursing care (e.g., not ambulating with patients or providing patient education) (Jones et al., 2015a; Kalisch et al., 2012), particularly when nursing labor demands grow due to patient volume and/or acuity level (Jones et al., 2015a). For example, Cho et al. (2016) found a 3% increased risk of incomplete nursing care with each additional patient in acute hospital settings. Indeed, several types of missed care opportunities have been associated with higher nurse-to-patient ratios: nursing documentation, care planning, psychological support, emotional support, patient communication, and patient

education (Griffiths et al., 2018b; Vinckx et al., 2018). In addition to missed care, missed patient observations are more likely to occur among nurses with higher patient ratios and this can contribute to higher failure-to-rescue rates among patients (Aiken et al., 2011; Park et al., 2012). Missed patient observations also serve as a mediator between low nurse staffing levels (i.e., fewer nurses to care for multiple patients) and patient mortality (Griffiths et al., 2018b).

The negative impact of high nurse-to-patient ratios occurs not only during hospitalization (Ball et al., 2018), but also after discharge in the form of increased hospital readmissions (Giuliano et al., 2016; Lasater & McHugh, 2016). For example, Giuliano et al. (2016) found significant readmission rate increases in heart failure patients among lower staffed nursing groups (p=0.02). Likewise, Lasater and McHugh (2016) found that each additional patient per nurse increased post-surgical patients' readmission risk by 8–12%.

Conversely, when nurses have more time with their patients, which often occurs through lower nurse-to-patient ratios, patient care improves (Griffiths et al., 2018a). Griffiths et al. (2018a) found that increasing the number of nursing hours per patient resulted in a 3% decrease mortality risk and a 0.23 mean decrease ($p<0.001$) in hospital length-of-stay (LOS), which was defined as the number of days patients spent in the hospital. While it may seem minor, a 0.23-day LOS decrease equates to nearly six hours, during which hospitalized patients can be safely discharged and other patients admitted. While lower nurse-to-patient ratios can improve patient outcomes, it is also important to consider how nurses are prepared to manage patient assignments and associated workloads.

Patient Outcomes Related to Nurse Preparation

Nurse preparation in this paper relates to nurses' highest level of education (e.g., bachelor's degree in nursing), clinical expertise (e.g., specialty certification), and years of

nursing experience. In the U.S., registered nurses are typically prepared for practice through three types of programs: diploma, associate degree in nursing (ADN), and bachelor's degree in nursing science (BSN) (NursingEducation.org, n.d.). Researchers have found that variations in nurse preparation can affect patient outcomes (De Cordova et al., 2014; Harrison et al, 2019). For example, increasing the proportion of registered nurses in hospitals, rather than licensed practical nurses and unlicensed support staff, has been associated with reductions in patient mortality (ICN, 2018; Needleman et al., 2006). Additionally, hospitals with more BSN-prepared nurses have been shown to have fewer incidences of in-patient falls and patient mortality (Cho et al., 2016; Coto et al., 2020; Harrison et al., 2019). For example, Harrison et al. (2019) found that among hospitals with a 10%-point increase in the proportion of BSN prepared nurses, patients who experienced a cardiac arrest were 24% more likely to survive the event with positive cerebral outcomes (OR: 1.24, 95% CI [1.08-1.42], $p<0.01$).

Nursing expertise can also impact patient outcomes, with an increase in nursing expertise associated with a lower likelihood of hospital-acquired infections and mortality (Hickey et al., 2018; Manoilovich et al., 2011). Furthermore, among 12,324 observed congenital cardiac cases with a complication rate of 34.4%, Hickey et al. (2018) identified that pediatric cardiac complications decreased significantly among children's hospitals with higher proportions of BSN-prepared nurses (OR 0.83, CI: 0.70–0.99, $p=0.04$) and nurses certified as critical care registered nurses (OR 0.86, CI: 0.76–0.97, $p=0.02$).

Years of nursing experience is another factor that can affect patient outcomes. Across bivariate and multivariate models, Schneider and Geraedts (2016) found that pressure ulcer incidence decreased when patients were cared for by nurses with at least three years of experience. Conversely, fewer years of nursing experience has been associated with adverse

patient outcomes. For example, Bowden et al. (2019) found that, among 344 patient falls on medical surgical units, 30% of in-patient falls were associated with nurses who had less than one year of experience. A nurse's level of preparation should be considered when making patient assignments. When nurses have patient assignments that adequately reflect their training and expertise, patient care can improve (Bowden et al., 2019; Harrison et al., 2019; Hickey et al., 2018; ICN, 2018; Manojlovich et al., 2011; Schneider & Geraedts, 2016); this is increasingly important as patient care becomes more complex. Therefore, nurse staffing should also reflect patient acuity.

Patient Outcomes Related to Acuity

Patient acuity relates to patients' illness severity and the intensity of nursing care required (Brennan & Daly, 2009). In the 21st century, patients typically are sicker when they enter the hospital, have a rising acuity level, and are discharged sooner (Welton, 2017). Patient acuity is an important consideration, as nurses with multiple high acuity patients are more likely to miss critical nursing care (Lake et al., 2020).

Some hospitals use patient acuity tools to classify patients into different risk categories so they can be safely assigned to nurses who are prepared to care for them (DiClemente, 2018). Because patient acuity levels may decrease during weekends, evenings, and holidays, some hospital administrations lower nurse staffing levels during these times (Debergh et al., 2012; Kraljic et al., 2017). However, when staffing nurses by patient acuity rather than by day of the week or season, researchers have found that staffing levels should be maintained, not lowered, to enhance patient safety (Ohnstad & Solberg, 2017). Similarly, De Cordova et al. (2014) noted that patients were more likely to have a longer hospital LOS when staffing levels were lower during nightshift compared to dayshift. It is often recommended by leading nursing organizations that

nurse staffing levels align with patient acuity (ICN, 2018). Along with clinical decision making, appropriate and timely patient acuity assessment is considered a function of nurse autonomy in hospital settings (Juvé-Udina et al., 2019).

Patient Outcomes Related to Nurse Autonomy

In this analysis, nurse autonomy represents nurses' abilities to act on their knowledge to provide quality patient care and to influence hospital policy and procedures to shape best practices for patient care. Nurse autonomy is often exemplified through shared governance or shared decision-making models (Kramer et al., 2006; Rao et al., 2017). Increased nurse autonomy also has been linked to improved patient outcomes (Rao et al., 2017; Goedhart & van Oostveen, 2017). For example, Rao et al. (2017) found that a one point increase in nurse autonomy, was associated with lower odds of patient mortality (OR 0.81, CI: 0.71-0.91, $p<0.001$) and failure-to-rescue rates (OR 0.83, CI: 0.74-0.95, $p<0.01$). Furthermore, nurse involvement in hospital decision making and governance has been found to improve hospital patient safety scores (Brooks Carthon et al., 2019). Finally, nurse autonomy is an essential staffing factor because it encompasses frequent nursing evaluation of the other staffing factors (ICN, 2018).

After identifying evidence-informed staffing factors in the four areas discussed above, a next step is to evaluate policy options for their potential effect on patient outcomes, while also considering the more traditional policy analysis aspects of cost and political feasibility. Given these considerations, this analysis is driven by the following question: how can nurses comprehensively evaluate nurse staffing policy for the sake of improving patient outcomes? In the subsequent sections, three state-level policy options are presented along with a review of stakeholders and an analysis of the policy options.

Current and Proposed State Nurse Staffing Policies

A review of U.S. state nurse staffing policies revealed three main types: mandated nurse-to-patient ratios, public reporting of nurse staffing plans, and nurse staffing committees (ANA, 2019). At the time of this publication, 14 states have some type of nurse staffing legislation (Table 1, appendix A). Two states (California and Massachusetts) have mandated nurse-to-patient ratios (ratios for all units in California and ratios for intensive care units only in Massachusetts). These options set maximum nurse-to-patient ratios in each hospital by unit type, require that nurses be assigned to patients based upon a patient acuity system, and ensures that hospitals are held accountable to maintain nurse-to-patient ratios by regulatory body oversight, such as the State Department of Public Health in California (California State Senate, 2019; Kasprak, 2004) and the Health Policy Commission in Massachusetts (Massachusetts Health Policy Commission, 2017). In addition to regulatory body oversight, the California state legislature passed a law in 2019 that would allow the California Department of Public Health to conduct unannounced hospital visits to assess for ratio compliance and administer financial penalties for hospitals not in compliance with the ratios (California State Senate, 2019).

Five states (Illinois, New Jersey, Rhode Island, New York, and Vermont) have policies requiring hospitals to publicly report their staffing plans and/or staffing information (ANA, 2019). For example, New Jersey's online forum reports the average nurse-to-patient ratios for each type of unit in all state hospitals (State of New Jersey Department of Health, n.d.). Because state residents can review a critical component of their nursing care, this policy option promotes staffing transparency.

Lastly and at the time of this publication, seven states (Connecticut, Illinois, Nevada, Ohio, Oregon, Texas, and Washington) have nurse staffing committees, which are mandated by

state law and organized at the hospital level, that include direct-care nurses, nurse managers, and nursing executives. Committee members meet throughout the year to formulate nurse staffing policy, which can include nurse-to-patient ratios for each unit, nurse preparation assessment, and acuity-based staffing plans (ANA, 2019).

While other state legislatures have considered implementing similar legislation, California is the only state with mandated nurse-to-patient ratios for all hospital units; staffing ratios were phased in, with all hospitals required to meet the staffing ratios by 2004 (Kasprak, 2004). Although Massachusetts already has state-mandated nurse-to-patient ratios for intensive care units, a ballot initiative to mandate hospital wide nurse-to-patient ratios was rejected by voters in 2018 (Abraham, 2019). Additionally, it is important to note that although Illinois law requires nurse staffing committees in all hospitals and public reporting of staffing plans, nurse unions continue to lobby for a nurse-to-patient ratio bill (Abraham, 2019). In 2019, Pennsylvania representative Gene DiGirolamo introduced House Bill 867, which sets nurse-to-patient ratios by unit type similar to those used in California (Keaton, 2019). This bill was referred to the Health committee on March 18, 2019, but the committee has not acted on the bill (HR 876, 2019).

Stakeholder Analysis

Stakeholder analysis—a critical policy analysis component (Teitelbaum & Wilensky, 2017)—is conducted to determine whose interests should be considered when evaluating policy options. Stakeholders include people and organizations with a vested interest (or *stake*) in the problem and the policies proposed to address it (Schmeer, 2001). Understanding stakeholder positions, interests, influences, and perspectives is key to evaluating a policy option's likelihood of acceptance. Three stakeholder groups were reviewed for the current analysis: hospitals, state governments, and nursing organizations. Although this analysis is focused on hospitalized

patient outcomes, patients (as a group) were not included as stakeholders, as they generally are not engaged in nurse staffing legislation efforts. Rather, patient populations can be affected by nurse staffing legislation.

Hospitals

Nurse staffing policies can directly affect hospital budgets and quality of care. About 56% of hospital operating budgets are labor and wage expenditures (Statista.com, 2016), with nurse employment costs constituting some of the largest expenditures (Patrick, 2014). In 2011, the average cost of hiring, insuring, and recruiting a nurse in the U.S. was $98,000 per year (National Association of Travel Healthcare Organizations, 2011). In 2012, salary expenses made up approximately 49% of U.S. hospital operating budgets, with nursing salaries comprising 30% of all salary expenses (Patrick, 2014). However, the available data for nursing labor is more than five years old and it is possible labor costs may have risen since 2011-2012.

The hospital industry—traditionally operating via fee-for-service models—is a business with a social responsibility to provide safe, quality healthcare services (Brandão et al., 2013). Additionally, hospital systems in the U.S. are transitioning towards value-based purchasing, which places more CMS payment reimbursement on clinical outcomes rather than just service quantity (Chee et al., 2016). Given that the amount and type of nursing services affect patient outcomes and satisfaction (Ball et al., 2018; Lasater et al., 2020; McHugh et al., 2016), hospitals must consider how nursing services factor into value-based purchasing models.

Hospital administrators also must consider how nursing services and nursing work environments affect CMS reimbursement status. While nurses are a major hospital operating expense, they also are vital to achieving good patient outcomes, fostering quality care, and increasing value for patients (Ball et al., 2018; Griffiths et al., 2018b; Lasater & McHugh, 2016).

All three of these factors are important for Medicare reimbursement, which accounted for 88–91% of payments for inpatient hospital stays from 2000 to 2015 (Sun et al., 2018). It is also important to note that improvements in nurse staffing levels have been associated with decreases in adverse patient events, readmission rates, and patients' length-of-stays in hospitals (Giuliano et al., 2016; Jun & Faulkner, 2018; Martsolf et al., 2014; McHugh et al., 2013); this is crucial for hospital cost-savings since adverse patient events, hospital readmissions, and increased patient length-of-stays can contribute to nearly 200 million in hospital cost (Adler et al., 2018). Researchers have also identified that increasing the proportion of RNs, as opposed to increasing RN work hours, acquires less cost to hospitals ($811 million vs. $7,538 million) (Needleman et al., 2006). Similarly, more recent research has shown that if medical-surgical units in New York hospitals maintained nurse-to-patient ratios of 1:4 (as opposed to the average of 1:6), hospitals could have saved $720 million over two years due to decreases in hospital readmissions and shorter patient length-of-stays (Lasater et al., 2021).

The Centers for Medicare and Medicaid Services (CMS) will not reimburse hospitals for hospital-acquired conditions (CMS, 2020)—those that can be prevented or minimized through nursing services (e.g., fall-related injuries, infections, pressure injuries, and pneumonia) (Coto et al., 2020; Cimiotti et al., 2012; Harrison et al., 2019; Schneider & Geraedts, 2016). CMS also has programs that hold hospitals accountable for providing effective and safe healthcare. For example, hospitals can be penalized for having high rates of hospital-acquired conditions (CMS, 2018). Additionally, the CMS Hospital Readmissions Reduction Program withholds reimbursements from hospitals with high readmission rates (CMS, 2018). While preventing hospital readmissions often entails nurses providing appropriate discharge preparation, care coordination, and patient education, it also involves having an adequate number of nurses to

provide these services in a timely manner (Giuliano et al., 2016; Jun & Faulkner, 2018; Martsolf et al., 2014; McHugh et al., 2013).

In addition to high quality patient care and avoiding CMS penalties, hospital administrators also value flexible operating margins that can account for various unforeseen expenses (e.g., uncompensated care or capital resources for new medical equipment) (Buerhaus, 2010; Smith, 2017). When hospitals implement a constant expenditure, such as a mandated nurse-to-patient ratio, they lose some budget flexibility and may experience increased labor costs (Buerhaus, 2010; Smith, 2017). Therefore, hospital organizations often lobby against certain types of nurse staffing legislation, particularly nurse staffing policy options that either limit operating margins or increase state government regulation of their business practices (Shelly, 2019). The effectiveness of the hospital industry's lobbying efforts was evident in Massachusetts when a mandated nurse-to-patient ratio bill was rejected by voters in 2018 (Abraham, 2019). The Coalition for Patient Safety, a lobbying group supported almost entirely by the Massachusetts Hospital Association, contributed almost 25 million dollars—nearly twice as much as the nurse lobbyist group, Committee to Ensure Safe Patient Care—to defeat the ballot initiative (Bartlett, 2019). In addition to having lobbying power, hospitals can make nurse staffing changes and formulate in-house staffing policy in the absence of state legislation. While hospital administrations appreciate the power to promote positive patient outcomes, they also value providing quality services at lower costs.

State Governments

While state legislators from any political party generally agree that healthcare is important, valuable, and should be high quality, they often debate how it should be delivered and funded. Furthermore, legislators often disagree about how and to what extent state legislatures

should regulate healthcare services, including hospital nurse staffing (Stainton, 2019). The discussion of state legislators as stakeholders is nuanced because each state has a different complement of legislators with various perspectives and party affiliations.

Some political trends have been noted among the 14 states that have passed nurse staffing legislation at the time of this publication (Table 2, Appendix A). Using data from a 2018 Gallup poll, where state residents were asked to describe themselves as 'conservative', 'moderate', or 'liberal', U.S. states' majority political ideologies seemed to align with the types of nurse staffing legislation that was passed (Jones, 2019). State classifications of 'highly conservative', 'more conservative than average', 'about average', less conservative than average' and 'more liberal than average' were based upon measured conservative-liberal point gaps (Jones, 2019). States with mandated staffing ratios tended to be less conservative than average or more liberal than conservative. Additionally, none of the 14 states with nurse staffing legislation was listed as a highly conservative state in 2018. These trends could certainly change in coming years, considering that Gallup researchers in 2020 found a slight decline in self-described conservatism and a slight incline in self-described liberalism among Americans during the first half of 2020 (January-June) (Saad, 2020). In light of this information, state legislators must consider the political feasibility of passing healthcare legislation in their state based upon the values of their constituents and colleagues.

Nursing Organizations

While nurses—represented mostly by nursing organizations—are major stakeholders in nurse staffing issues, as a pluralistic group they are not always united on policy issues. Nursing organizations want safe staffing measures in all hospitals for the sake of positive patient outcomes, but nursing organizations may disagree with other nursing organizations on how to

achieve safe staffing. Rather than legislating nurse-to-patient ratios, the American Nurses Association (ANA) promotes nurse autonomy over practice and advocates for staffing plans to be continually assessed and crafted by nurses working in hospitals (ANA, 2020). Between 1995 and 2010, eight state ANA affiliates severed ties with the ANA. In 2009, three nursing unions joined to form National Nurses United (NNU) (NNU, 2021). In contrast to the ANA, a goal of the NNU is to enact safer nurse-to-patient ratios through legislation to improve patient safety and working conditions for nurses (NNU, 2021). The organizational differences within the nursing profession—reflected in the divergent perspectives and agendas of ANA state affiliates, the NNU, and other labor organizations—could dilute the profession's overall power in state policymaking activities. Each state's dominant political ideology tends to align with its nurse staffing policymaking efforts on both ends of the political spectrum, but less so in the middle (Table 2, Appendix A). Furthermore, no highly conservative states have enacted nurse staffing policies (Table 2, Appendix A).

Currently, 36 U.S. states do not regulate nurse staffing, yet the need for safe nurse staffing continues to be approached with policy solutions. State representatives in New York, Michigan, and Pennsylvania are discussing nurse-to-patient ratio legislation, with bills in committee (Abraham, 2019; Thayer, 2019). Additionally, in recent years two nurse staffing bills (one with mandated ratios and one with staffing committee formation) have been introduced at the federal level: the *Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act* (HR 2581, 2019) and the *Safe Staffing for Nurse and Patient Safety Act of 2018* (HR 5052, 2018). With nurse staffing legislation being considered at state and federal levels, policy options are analyzed in the subsequent sections using an established methodology (Teitelbaum & Wilensky, 2017).

Policy Option Analysis

Policy analysis is not research, but a systematic comparison used to evaluate existing or proposed policies. The aim of policy analysis is to determine the best way to solve a societal problem, with consideration given to how well a proposed policy meets the goals linked to the problem it is designed to address. To be effective, policy analysis should be informed by research and evaluation. The following analyses do not provide recommendations, as is common in client-directed or single stakeholder policy analysis (Teitelbaum & Wilensky, 2017). Instead, we will conclude the analysis with guiding nurse staffing policy principles, which are intended to help nurses comprehensively evaluate nurse staffing policy options.

Three state-level policy options are addressed: mandated nurse-to-patient ratios for each hospital unit, public reporting of nurse staffing plans and/or information, and nurse-based staffing committees that create staffing policies and procedures. Note that some states have implemented a combination of these policies (Table 1, Appendix A). Each option is analyzed using four criteria: use of nurse staffing evidence, cost, political feasibility, and evaluation of the policy's effects on patient outcomes. A summary table of this analysis can be found in Table 3 (Appendix A).

For this analysis, the evidence criterion pertains to whether the policies address or have the capability to address four designated nurse staffing factors, which were selected with guidance from the International Council of Nurses' 2018 evidence-based nurse staffing position statement, (nurse-to-patient ratios, nurse preparation, patient acuity, and nurse autonomy) (ICN, 2018). While this criterion does not include all possible staffing factors, four are included to present an approach that considers more than one area of evidence. The cost criterion relates to how much a policy will cost hospital administrations and state governments. Political feasibility

relates to the policy's likelihood of becoming a law. A policy's political feasibility is not static, and it can change depending on windows of opportunity, availability of timely supporting research, or changes in state political climates; however, for the purposes of this analysis, political feasibility considers previous trends in state nurse staffing laws and a state's majority political leanings as of 2018 (i.e., conservatism vs. liberalism). The cost and political feasibility criterions were selected as the more traditional criterions of a policy analysis per Teitelbaum and Wilensky (2017). As seen with traditional policy analysis (Teitelbaum & Wilensky, 2017), there is often a criterion for targeted impact, which is meant to assess a policy option's impact on certain populations or selected phenomena. Since each nurse staffing policy option has been implemented in at least one state, we sought to assess a policy's potential effects on patient populations by evaluating research surrounding the policy options; this serves as our targeted impact criterion.

Mandated Nurse-to-Patient Ratios

Evidence. While this policy option is most informed by the evidence related to staffing ratios, patient acuity, and how patient outcomes improve with fewer patients per nurse (Ball et al., 2018; Cho et al., 2016), it does not address the need to assess nurses' preparation or promote active nurse autonomy over staffing policies and procedures. For example, although California's staffing ratios were determined by the state's Department of Health Services with guiding nurse testimonies, such as those from the California Nurses Association (Kasprak, 2004), the policy does not include a requirement for direct care/staff nurses to consistently assess whether the mandated ratios are sufficient to meet patient needs (i.e., should mandated ratios be changed for certain units?).

Cost. This policy option could be considered the costliest because all state hospitals, regardless of size or trauma level, would need to abide by the mandated ratios. In addition, nurse wages may increase, as seen after the staffing mandate in California (Mark et al., 2009). Hospitals also could incur other labor expenses, such as those associated with recruitment bonuses, nurse training, sign-on bonuses, and a short-term reliance on staffing agencies for temporary nursing staff (Serratt, 2013). However, hospitals already staffed at state-mandated ratios may not experience an immediate financial expenditure (Mark et al., 2013) and this option would likely come with a phase in period, giving hospitals a few years to fully meet their requirements (Kasprak, 2004).

This option has been shown to decrease hospital operating margins and increase operating expenses, and its financial impact would likely be absorbed mainly by hospitals rather than state governments (Reiter et al., 2012). Although, publicly owned hospitals with a high reliance on Medicaid funding could require increased state Medicaid reimbursements after policy implementation (Reiter et al., 2012). This policy option could be considered the costliest option in terms of labor expenses (Mark et al., 2009; Reiter et al., 2012), but it should also be noted that this is the only policy option associated with reductions of hospital costs in the long term through decreasing adverse patient events, readmissions, and length-of-stays (Giuliano et al., 2016; Jun & Faulkner, 2018; Lasater et al., 2021; Martsolf et al., 2014; McHugh et al., 2013).

Political Feasibility. Compared to the other two policy options, mandated staffing ratios have had the lowest degree of political feasibility. California passed their hospital-wide ratio legislation over twenty years ago, and states besides California have tried to pass similar legislation without success. Despite Massachusetts having mandated nurse-to-patient ratios for intensive care units, voters rejected ratios for all hospital units in a 2018 ballot initiative

(Abraham, 2019). However, Massachusetts nursing organizations continue to lobby for a mandated ratio bill, citing the hospital organizations' attempt to sway voters against the staffing mandate as unethical and based on questionable research findings (Abraham, 2019). A mandated ratio law also places more state regulation on hospital business practices, which may be more accepted in liberal leaning states rather than conservative leaning states.

In recent years, the Illinois state legislature declined to vote on a maximum nurse-to-patient ratio bill due to concerns that it would decrease hospital staffing flexibility (Thayer, 2019). Additionally, although the Democratic Governor of Pennsylvania, Tom Wolf, has expressed support for a mandated ratio bill, the bill would also need some support from the conservative state legislature majority for its passage (Abraham, 2019). Because mandated state ratios increase government regulation, bipartisan support may at times be difficult to achieve. Compared to the other two options, mandated nurse staffing ratios seem to cause more discord among state legislatures and healthcare interest groups.

Patient Outcomes after Policy Implementation. Patient outcomes after implementation of a nurse-to-patient ratio policy have been extensively researched, particularly patient mortality rates (Aiken et al., 2010; Flanagan et al., 2016; Mitchell, 2019). For example, Flanagan et al. (2016) identified significantly lower ($p < 0.001$) pneumonia readmission rates in California, compared to those of Massachusetts and New York. Additionally, Aiken et al. (2010) noted a decrease in patient mortality rates after policy implementation in California, compared to two states without such mandates (New Jersey and Pennsylvania). Using a predicted probabilities approach, Aiken et al. suggested that if New Jersey and Pennsylvania hospitals used California's mandated staffing ratios, surgical deaths would have decreased by 13.9% in New Jersey and 10.6% in Pennsylvania (Aiken et al., 2010).

Although lower nurse-to-patient ratios have reduced patient mortality rates and adverse patient events (Aiken et al., 2010; Ball et al., 2018, Lasater & McHugh, 2016), some researchers have not seen patient outcome improvements after policy implementation (Law et al., 2018). For example, in Massachusetts, Law et al. (2018) found no significant differences in mortality or complication rates between pre- and post-implementation periods (2015–2017) after implementation of mandated nurse-to-patient ratios for hospital ICUs. Other researchers have documented mixed patient outcome results after nurse-to-patient ratio legislation. After assessing patient outcome data between pre- and post-regulation periods, Mark et al. (2013) noted that some California hospitals experienced significant decreases in failure-to-rescue rates. However, other California hospitals saw increases in postoperative sepsis and infections compared to 12 U.S. state hospitals without such staffing initiatives (Mark et al., 2013).

To assess how nurse-to-patient ratio legislation has affected patient access to quality nursing care, some researchers have assessed relationships between missed nursing care and nurse workloads in California. Orique et al. (2016) found no significant correlations between missed nursing care and unit-specific nurse workloads among California nurses. While the authors attributed this finding to the staffing mandate resulting in fewer patients per each nurse, pre-staffing mandate data were not assessed for comparison (Orique et al., 2016). Other researchers have noted that the staffing mandate could be the reason that adverse patient outcomes did not significantly rise despite increases in patient acuity across California hospitals during the mandate's implementation period (Donaldson & Sharpio, 2010). The conflict among study results from Law et al. (2018) Mark et al. (2013), and Orique et al. (2016) may be related to other nurse staffing factors (e.g., nurse autonomy) not considered in evaluations of relationships between patient outcomes and nurse-to-patient ratio implementation.

Nurse-to-patient ratio legislation can help improve patient outcomes and prevent adverse outcomes (Aiken et al., 2010; Flanagan et al., 2016; Mitchell, 2019; Orique et al., 2016). Despite these advantages, this type of legislation may have varying effects in different healthcare systems, depending on how high ratios were before implementation. Finally, while this option may hold the most evidentiary support for positive patient outcomes in the U.S. and internationally, post-implementation evidence is limited in the U.S. to California and Massachusetts.

Publicly Reporting Staffing Plans

Evidence. Some states require hospitals to publicly report their staffing plans and/or staffing information (ANA, 2019), but it is unknown how often the public uses this information or whether they understand its significance (De Cordova et al., 2019). Although this policy option gives consumers access to staffing information, it does not standardize how the information is presented. In fact, state-to-state variations in reporting approaches could affect how patients understand the information. New Jersey, for example, reports the average number of patients per nurse (State of New Jersey Department of Health, n.d.), while Vermont reports the number of nurse hours per patient per day (Vermont Department of Health, 2020). Using different staffing information metrics without explaining what they mean could lead to patient confusion. Furthermore, patients unable to make sense of the information may disregard it when they are selecting a hospital. In sum, while this policy option allows for the dissemination of nurse staffing information, it does not promote assessment of the number of patients per nurse, patient acuity, nurse preparation, or nurse autonomy and does not call for specific nurse staffing actions through policy. Thus, this policy option is least informed by nurse staffing evidence.

Cost. Of the three policy options, public reporting of staffing plans and/or information requires the least amount of ongoing hospital expenditures. For example, nurse staffing information from New Jersey and Vermont are readily available on their department of health websites (State of New Jersey Department of Health, n.d.; Vermont Department of Health, 2020). While hospitals and state departments of health will incur some administrative and technological costs for compiling staffing information on an accessible website, the exact costs and which organizations will absorb most of them are unknown. Furthermore, while this option offers the most hands-off approach to hospital staffing policy, it may have indirect effects on staffing levels, which could subsequently lead to increases in nursing costs over time. For example, New Jersey hospitals experienced nurse staffing level increases after adopting the reporting policy (De Cordova et al., 2019).

Political Feasibility. Public reporting of nurse staffing, which has been implemented in five states (ANA, 2019), is often regarded as a politically feasible policy option (Relias Media, 2019). The public likely would favor this option because it promotes healthcare service transparency (Relias Media, 2019). However, using a public reporting system to choose a hospital requires high levels of literacy, critical thinking, and an understanding of what constitutes quality care (Kumpunen et al., 2014). Patients may be more likely to choose hospitals based on recommendations from family members, their insurance plans, or personal experiences rather than a public reporting system (Kumpunen et al., 2014). This option, regarded as a compromise to mandated staffing ratios (Relias Media, 2019), may be able to garner more bi-partisan support in conservative leaning states that typically disfavor state government regulation.

Patient Outcomes after Policy Implementation. While New Jersey saw nurse staffing level increases after implementing a nurse staffing public reporting system (De Cordova et al., 2019), there is no evidence to indicate this option improved patient outcomes. It could be hypothesized that this option would improve patient outcomes due to more hospital nurses being hired, but this result has not been demonstrated. As seen in New Jersey (De Cordova et al., 2019), this option could exert public pressure on hospitals to improve ratios, which eventually could help improve patient outcomes. This result is similar to that of the sentinel effect, in which increased oversight is linked to improved behavior (Koreff et al., 2020).

Nurse Staffing Committees

Evidence. At the time of this publication, public policies requiring hospital nurse staffing committees have been implemented in Oregon, Washington, Texas, Connecticut, Illinois, Nevada, and Ohio (ANA, 2019). These laws contain language that addresses evidence-informed nurse staffing factors (e.g., assessing patient acuity, the number of patients per nurse, and nurse preparation among hospitals) (Chapter 257, 2009; Division 510, 2009; Public Act No. 15-19, 2015). This option is most informed by evidence related to nurse autonomy because direct-care nurses are involved in creating hospital staffing plans and policies. Since this option is informed by nurse autonomy, it is broad enough to encompass the evidence supporting nurse assessment of nurse-to-patient ratios, nurse preparation, and patient acuity.

Cost. Costs associated with this option would likely be absorbed by hospitals rather than state governments since committees are organized at the hospital level. Since nurse committee staffing plans would be hospital-specific, the cost of this option would vary by hospital and the recommendations of nursing staff. For example, after this policy was implemented in Texas, hospitals with staffing levels below committee standards hired more nurses over time (Jones et

al., 2015). Another hospital cost could be acquiring a patient acuity system, an expenditure that would vary according to each hospital's budget and committee discretion. After the implementation of this policy in Illinois, committees either purchased an acuity system or developed their own (Fitzpatrick et al., 2013).

Political Feasibility. Nurse staffing committees generally are a politically feasible option, that hospital and nursing interest groups regard as a compromise to improve patient outcomes while maintaining flexibility in hospital operating margins (Fitzpatrick et al., 2013). The general language of established state statutes describes who should be on the committees but leaves the selection of direct-care nurses to the hospitals' discretion (Chapter 257, 2009; Division 510, 2009; Shin et al., 2018; Public Act No. 15-19, 2015). This option has been implemented in seven states at the time of this publication (ANA, 2019), both in states with liberal and conservative ideological leanings (Jones, 2019) (Table 2, Appendix A).

Despite this policy being regarded as a valuable bipartisan option (Fitzpatrick et al., 2013; Seago et al., 2012), there have been reports of hospitals not following their state's mandate. When this situation occurs, state legislators have had to amend original mandates to uphold nurse staffing committees' ability to create evidence-based staffing plans (Gray, 2015; Washington State Nurses Association, 2017). Additionally, although Illinois hospitals are required to have nurse staffing committees, some Illinois nurse interest groups still are lobbying for mandated nurse-to-patient ratio legislation (Thayer, 2019). While this option may be politically feasible, there is some evidence to suggest that further political intervention may be necessary after the policy is implemented.

Patient Outcomes after Policy Implementation. Patient outcomes, such as increases in patient safety and quality of care, improve when nurses are structurally empowered to act

autonomously and be involved in hospital policy and procedure formulation (Brooks Carthon et al., 2019; Goedhart et al., 2017; Rao et al., 2017). However, there is limited evidence on how nurse staffing committee legislation affects patient-specific outcomes (e.g., falls, pressure ulcers, and mortality rates). In the available studies, researchers have used surveys or interviews with committee members to learn how the policy was implemented (Fitzpatrick et al., 2013; Seago et al., 2012). For example, after interviewing nurses, nurse managers, and chief nursing officers from seven Oregon hospitals, Seago et al. (2012) found that the mandate gave nurses a voice in patient care quality and safety. However, the researchers did not measure any patient-centric factors.

This analysis illustrates an approach for assessing nurse staffing policy options, which highlights nursing and traditional policy considerations. Using a patient-centric lens, we sought to understand not only how nurse staffing policies affect patient outcomes, but also how nurses can evaluate policies in patients' best interests. Furthermore, because nurse staffing legislation also can affect hospital nursing workforce satisfaction and retention (Cimiotti et al., 2012; Dutra et al., 2018), these issues should be considered in subsequent nurse staffing policy analyses.

In lieu of a policy recommendation (Teitelbaum & Wilensky, 2017), we recommend nurses consider the following nurse staffing policy principles as they review and lend their support to state-level nurse staffing policy options: empirical support, contextual environments, political environments, targeted impact, and measurement of policy outcomes. As nurses review nurse staffing policy options, may they consider these questions as part of their evaluation: (1) is the policy option supported by empirical nurse staffing evidence? (empirical support); (2) who will be affected by the policy option and what are their values? (contextual environments); (3) what is the political landscape and how do the prevailing power dynamics help or hinder the

success of the policy option? (political environments); (4) does the policy option in question target the problem to be solved, such as improving patient outcomes or improving nurse work environments? (targeted impact); (5) have similar enacted policies been evaluated for effectiveness or does the policy option in question include plans to evaluate policy implementation? (measurement of policy outcomes). Asking these questions may help nurses formulate their perspectives on nurse staffing policy and create plans for successful nurse staffing policy lobbying.

Discussion

As affirmed by this review and analysis, many factors must be considered when discussing nurse staffing evidence and state policy. Additionally, implications for policy, research, and nursing practice can be drawn from this analysis. Policymaking is an ongoing and evolving process. Policy formulation—the first step in the process—consists of establishing broad parameters of government action (e.g., the agreement within a state to pursue a nurse staffing strategy). The following is a discussion of the translation of intentions into policy creation, implementation, results, and modification.

Because of the pluralism that defines U.S. policymaking, most policymaking efforts tend to preserve the status quo rather than enact sweeping change. Indeed, most policy change is achieved through the accumulation of incremental changes (Hayes, n.d.). For example, nurse staffing committee laws in Oregon, Washington, and Nevada have been amended over the last decade to increase accountability and enforcement of committee recommendations through fines and penalties. Additionally, the amendments also have led to more clarity in nurse staffing committee roles and plans to investigate/solve complaints from hospital administrations and

staffing committees (Oregon Health Authority, n.d.; Service Employees International Union, n.d.; Washington State Nurses Association, n.d.).

Opportunities exist to highlight the importance of nurse staffing, link staffing to patient outcomes, and promote supportive policies. One opportunity is to add nurse staffing factors to the CMS *Hospital Compare* reports, which provide consumer-friendly care quality information on more than 4,000 Medicare-certified hospitals nationwide (CMS, n.d.a; CMS, n.d.b.). Another opportunity is persuading the U.S. Government Accountability Office to examine how evidence-based nurse staffing could save money and improve Medicare program value (U.S. Government Accountability Office, n.d.).

Although research has influenced nurse staffing legislation, there are opportunities to use research results to promote better patient outcomes. Evidence-based policymaking can be used to inform new policies or improve existing policies (Evidence-based Policymaking Collaborative, 2016). Using previous and new research findings about nurse staffing and patient outcomes and evaluating the effects of policy implementation are important steps for ensuring that policies achieve goals effectively and mitigate the issues they were intended to solve.

As noted, limited research evaluates the effects public reporting and nurse staffing committee legislation have on measurable, patient-specific outcomes. To address this gap, researchers could study whether quality care measures (e.g., patient mortality or readmission rates) improved after implementation of these two options. Such measures, when assessed alongside nursing workforce outcomes, can promote a holistic understanding of a policy's impact. Additionally, there is limited research on the implementation or value of nurse staffing committee legislation, and essentially no formal, peer-reviewed research on the topic in Ohio, Connecticut, or Nevada (three states with nurse staffing committee mandates). Moreover, of the

studies conducted in states with such legislation, researchers have typically used only one method, either quantitative or qualitative, to evaluate the legislation (Fitzpatrick et al., 2013; Jones et al., 2015; Seago et al., 2012). For example, Jones et al. (2015) documented an increase in nurse staffing levels after nurse staffing committee legislation was implemented in Texas. However, without subsequent qualitative exploration, nurse researchers can only speculate on the legislation's role in this trend. Similarly, there is limited formal research on public reporting staffing policy effects on nurse staffing patterns (De Cordova et al., 2019) and patient care quality in Vermont, Rhode Island, New York, and Illinois. There could be changes in these states related to the sentinel effect where, due to increased oversight, hospitals want their publicly reported information to reflect better staffing levels to compete with other hospitals (Kumpunen, et al., 2014). To understand the effect nurse staffing committee and public reporting legislation have on patient outcomes, qualitative and quantitative research should be conducted. Moreover, this research should be conducted in each state where such policies have been implemented, as a policy's impact and implementation process can vary from state to state.

This analysis focused on patient outcomes relative to nurse staffing policy. However, nurse staffing policy also impacts nurses' work environments and can subsequently affect nursing workforce outcomes, such as burnout and job satisfaction (Aiken et al., 2002; Schlak et al., 2021). Nurses are a human resource, which is why researchers have found correlations between nurse burnout and poor patient outcomes (Bakhamis et al., 2019). Higher rates of burnout among nurses have been shown to increase the odds of patient mortality, failure-to-rescue, and hospital length-of-stay, yet researchers have found that improvements in hospital work environments, such as improvements in nurse staffing levels, can lower the odds of inpatient mortality by 14% ($p < 0.001$), failure-to-rescue by 12% ($p < 0.001$), and hospital length-

of stay by 4% (p= 0.003) (Schlak et al., 2021). In sum, the care nurses can provide is affected by their overall wellbeing and hospital work environment.

Nurse staffing legislation often is informed by evidence and advocacy efforts led by nurses in professional nursing organizations (American Nurses Association, 2018; National Nurses United, n.d.). Although advocacy efforts for nurse staffing legislation may begin with patient outcome discussions, the focus quickly can shift to nursing outcomes and labor rights issues (Wolkinson, 2018). Recognizing that nurse staffing legislation affects both patient and nurse outcomes can help nurse leaders assess the connected yet distinct values of nurse staffing policy. This awareness could lead to more informed discussions about nurse staffing policy issues, such as what to include in policy language, how policies should be enforced, whether they protect or neglect nurses, and how they are translated in nursing practice environments. As the U.S. migrates towards a value-based healthcare system (Chee et al., 2016), nurses should be considered partners in achieving good patient outcomes, rather than just a cost of doing business, as they may traditionally be viewed in fee-for-service models.

Limitations and Conclusion

Because nurse staffing is a complex process with many related factors, we were not able to consider all relevant factors in this analysis (e.g., patient turnover). Similarly, this analysis reviewed policy options using only four criteria. While these criteria were carefully chosen to reflect nurse staffing evidence and scholarly policy analysis, other evaluation criteria are available. Therefore, subsequent nurse staffing policy analyses should not be limited by these four criteria. Available data to support our presentations of state political affiliations are from 2018, which may be slightly out of date considering that more recent data suggests a shift in Americans' political affiliations since 2020 (an increase in self-described liberalism and a

decrease in self-described conservatism) (Saad, 2020). In conclusion, we present an approach to nurse staffing policy analysis that is focused on the goal of improving patient outcomes by assessing evidence related to nurse staffing, cost, political feasibility, and patient outcomes related to policy implementation. Regardless of their policy analysis approach, nurses must be involved in the comprehensive evaluation of nurse staffing policy for the sake of patient outcomes and the health of the nursing workforce.

References

Abdellah, F. G., Levine, E., United States. Public Health Service. Division of Nursing. (1958*). Effect of nurse staffing on satisfactions with nursing care: a study of how omissions in nursing services, as perceived by patients and personnel, are influenced by the number of nursing hours available*. Chicago: American Hospital Association.

Abraham, T. (2019). *States inch forward on nurse staffing laws.* Retrieved from https://www.healthcaredive.com/news/states-inch-forward-on-nurse-staffing-laws/554359/

Aiken, L. H., Sloane, D. M., Cimiotti, J. P., Clarke, S. P., Flynn, L., Seago, J. A., … Smith, H. L. (2010). Implications of the California nurse staffing mandate for other states. *Health services research, 45*, 904–921. doi:10.1111/j.1475-6773.2010.01114.x

Aiken, L., Clarke, S., Sloane, D., Sochalski, J., & Silber, J. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA, 288*, 1987-1993. Retrieved from https://jamanetwork.com/journals/jama/fullarticle/195438

Aiken, L. H., Cimiotti, J. P., Sloane, D. M., Smith, H. L., Flynn, L., & Neff, D. F. (2011). Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Medical care, 49*(12), 1047–1053. https://doi.org/10.1097/MLR.0b013e3182330b6e

American Nurses Association (ANA). (2018, February 22nd). *ANA applauds nurse staffing legislation*. https://www.nursingworld.org/news/news-releases/2018/ana-applauds-nurse-staffing-legislation/

American Nurses Association (ANA). (2019). *Nurse staffing advocacy*. https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-advocacy/

American Nurses Association (ANA). (2020). *ANA's Principles for Nurse Staffing, 3rd edition*. American Nurses Association.

Bakhamis, L., Paul, D.P. III, Smith, H., & Coustasse, A. (2019). Still an epidemic: The burnout syndrome in hospital registered nurses. *The Health Care Manager*, *38*(1), 3-10. https://doi.org/10.1097/HCM.0000000000000243

Ball, J.E., Bruyneel, L., Aiken, L.H., Sermeus, W., Sloane, D.M., Rafferty, A . . . Griffiths. (2018). Post-operative mortality, missed care, and nurse staffing in nine countries: A cross-sectional study. *International Journal of Nursing Studies, 78,* 10-15. https://doi.org/10.1016/j.ijnurstu.2017.08.004

Bartlett, J. (2019, February 25). *Hospitals spend record $25M to defeat nurse patient ratio ballot question.* Boston Business Journal. https://www.bizjournals.com/boston/news/2019/02/25/hospitals-spend-record-25m-to-defeat-nurse-patient.html

Blegen, M.A., Goode, C.J., Reed, L. (1998). Nurse staffing and patient outcomes. *Nursing Research*, *47*(1):43-50. https://doi.org/10.1097/00006199-199801000-00008

Blegen, M. A., Goode, C. J., Spetz, J. H., Vaughn, T., & Park, S. (2011). Nurse staffing effects on patient outcomes: Safety-net and non-safety-net hospitals. *Medical Care, 49*, 406-414. Retrieved from https://journals.lww.com/lww-medicalcare/Pages/issuelist.aspx?year=2011

Bowden, V., Bradas, C., & McNett, M. (2018). Impact of level of nurse experience on falls in medical surgical units. *Journal of Nursing Management, 27*, 833-839. https://doi.org/10.1111/jonm.12742

Brandão, C., Rego, G., Duarte, I., & Nunes, R. (2013). Social responsibility: a new paradigm of hospital governance? *Journal of Health Philosophy and Policy, 21*(4), 390–402. https://doi.org/10.1007/s10728-012-0206-3

Brooks Carthon, J., Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., . . . Aiken, L.H. (2019). Association of nurse engagement and nurse staffing on patient safety. *Journal of Nursing Care Quality, 34*, 40-46. https://doi.org/10.1097/NCQ.0000000000000334

Brooks Carthon, J., Kutney-Lee, A., Jarrín, O., Sloane, D., & Aiken, L. (2012). Nurse staffing and postsurgical outcomes in black adults. Journal of the American Geriatrics Society, 60, 1078-1084. doi: 10.1111/j.1532-5415.2012.03990.x

Brennan, C., & Daly, B. (2009). Patient acuity: a concept analysis. *Journal of Advanced Nursing, 65*(5), 1114–1126. https://doi.org/10.1111/j.1365-2648.2008.04920.x

Buerhaus, P. (2010). What is the harm in imposing mandatory hospital nurse staffing regulations? *Nursing Economic$, 28*, 87-93. Retrieved from http://www.nursingeconomics.net/cgi-bin/WebObjects/NECJournal.woa

Centers for Medicare and Medicaid Services (CMS). (December 4th, 2018). *Value based programs.* Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/Value-Based-Programs.html

Centers for Medicare and Medicaid Services (CMS). (February 11th, 2020). *Hospital Acquired Conditions*. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Hospital-Acquired_Conditions

Centers for Medicare & Medicaid Services (CMS) (n.d. a) *Hospital Compare.* https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalCompare

Centers for Medicare & Medicaid Services (CMS) (n.d. b) *What is Hospital Compare?* https://www.medicare.gov/hospitalcompare/about/what-is-hos.html

Chapter 257, Nurse Staffing, TX. Stat. §§ 257-001-005. (2009). Retrieved from https://statutes.capitol.texas.gov/Docs/HS/htm/HS.257.htm

Cho, E., Sloane, D.M., Kim, E.Y., Kim, S., Choi, M., Yoo, I.Y., . . . Aiken, L.H. (2015). Effects of nurse staffing, work environments, and education on patient mortality: An observational study. *International Journal of Nursing Studies, 52,* 535-542. https://doi.org/10.1016/j.ijnurstu.2014.08.006

Cho, E., Lee, N., Kim, E., Kim, S., Lee, K., Park, K., & Sung, Y. (2016). Nurse staffing level and overtime associated with patient safety, quality of care, and care left undone in hospitals: A cross-sectional study. *International Journal of Nursing Studies, 60,* 263–271. https://doi.org/10.1016/j.ijnurstu.2016.05.009

Cimiotti, J. P., Aiken, L. H., Sloane, D. M., & Wu, E. S. (2012). Nurse staffing, burnout, and health care-associated infection. *American journal of infection control, 40,* 486–490. https://doi.org/10.1016/j.ajic.2012.02.029

Condliffe, S., & Link, C. (2016). Registered nurses: the impact of wages on labour force participation and hours worked - are wages an effective mechanism for addressing RN shortages with evidence from 1960 to 2008? Applied Economics Letters, 23(12), 849–852. https://doi.org/10.1080/13504851.2015.1114570

Conditions of Participation for Hospitals. Title 42 *Code of Federal Regulations*, Pt §482.23, 2021. https://www.ecfr.gov/cgi-bin/text-idx?SID=439493803712d232b4f43a32a0f6caa3&mc=true&node=se42.5.482_123&rgn=div8

De Cordova, P. B., Phibbs, C. S., Schmitt, S. K., & Stone, P. W. (2014). Night and day in the VA: associations between night shift staffing, nurse workforce characteristics, and length of stay. *Research in nursing & health*, *37*(2), 90–97. https://doi.org/10.1002/nur.21582

De Cordova, P., Rogowski, J., Riman, K., & Mchugh, M. (2019). Effects of public reporting legislation of nurse staffing: A trend analysis. *Policy, Politics & Nursing Practice, 20*, 92-104. doi: 10.1177/1527154419832112

Debergh, D. P., Myny, D., Van Herzeele, I., Van Maele, G., Reis Miranda, D., & Colardyn, F. (2012). Measuring the nursing workload per shift in the ICU. *Intensive care medicine*, *38*(9), 1438–1444. https://doi.org. 10.1007/s00134-012-2648-3

DiClemente, K. (2018). Standardizing Patient Acuity: A Project on a Medical-Surgical/Cancer Care Unit. *MedSurg Nursing*, *27*(6), 355–387. http://www.medsurgnursing.net/cgi-bin/WebObjects/MSNJournal.woa

Division 510, Patient Care and Nursing Services in Hospitals, OR. Stat.§§ 333-510-0001 (2009). Retrieved from https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1366

Donaldson, N., & Shapiro, S. (2010). Impact of California mandated acute care hospital nurse staffing ratios: a literature synthesis. *Policy, Politics & Nursing Practice*, 11(3), 184–201. https://doi-org /10.1177/1527154410392240

Dutra, H.S., Cimiotti, J.P., & Guirardello, E. (2018). Nurse work environment and job-related outcomes in Brazilian hospitals. *Applied Nursing Research, 41,* 68-72. https://doi.org/10.1016/j.apnr.2018.04.002

Fitzpatrick, T., Anen, T., & Soto, E. M. (2013). Nurse staffing: The Illinois experience. (CNE Series). *Nursing Economics, 31,* 221-229. Retrieved from http://www.nursingeconomics.net/cgi-bin/WebObjects/NECJournal.woa

Flanagan, J., Stamp, K. D., Gregas, M., & Shindul-Rothschild, J. (2016). Predictors of 30-Day Readmission for Pneumonia. *Journal of Nursing Administration, 46*(2), 69–74. https://doi-org/10.1097/NNA.0000000000000297

Garcia, C. L., Abreu, L. C., Ramos, J., Castro, C., Smiderle, F., Santos, J., & Bezerra, I. (2019). Influence of burnout on patient safety: Systematic Review and Meta-Analysis. *Medicina, 55*(9), 553. https://doi-org/10.3390/medicina55090553

Giuliano, K.K, Danesh, V., & Funk, M. (2016). The relationship between nurse staffing and 30-day readmission for adults with heart failure. *JONA, 46,* 25-29. https://doi.org/10.1097/NNA.0000000000000289

Goedhart, N. S., van Oostveen, C. J., & Vermeulen, H. (2017). The effect of structural empowerment of nurses on quality outcomes in hospitals: a scoping review. *Journal of nursing management, 25*(3), 194–206. https://doi.org.10.1111/jonm.12455

Gray, C. (February 18, 2015). *Hospital association buckles at bipartisan nurse staffing legislation.* https://www.thelundreport.org/content/hospital-association-buckles-bipartisan-nurse-staffing-legislation

Griffiths, P., Ball, J., Bloor, K., Böhning, D., Briggs, J., Dall'ora,C . . . Smith, G. (2018a). Nurse staffing levels, missed vital signs and mortality in hospitals: Retrospective longitudinal

observational study. *Health Services and Delivery Research, 6*, 1-69. doi: 10.3310/hsdr06380

Griffiths, P., Recio-Saucedo, A., Dall'Ora, C., Briggs, J., Maruotti, A., Meredith, P., . . . Ball, J. (2018b). The association between nurse staffing and omissions in nursing care: A systematic review. *Journal of Advanced Nursing, 74*, 1474-1487. doi: 10.1111/jan.13564

Hanel, B., Kalb, G., & Scott, A. (2014). Nurses' labour supply elasticities: The importance of accounting for extensive margins. *Journal of Health Economics*, *33*(1), 94–112. https://doi.org/10.1016/j.jhealeco.2013.11.001

Harrison, J., Aiken, L., Sloane, D., Brooks Carthon, J., Merchant, R., Berg, R., & Mchugh, M. (2019). In hospitals with more nurses who have baccalaureate degrees, better outcomes for patients after cardiac arrest. *Health Affairs (Project Hope), 38*, 1087-1094. doi: 10.1377/hlthaff.2018.05064

Hayes, M. (April 2017). Incrementalism & public policymaking. *Oxford Research Encyclopedia.* https://oxfordre.com/politics/view/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-133

Hickey, P. A., Gauvreau, K., Porter, C., & Connor, J. A. (2018). The Impact of Critical Care Nursing Certification on Pediatric Patient Outcomes. *Pediatric Critical Care Medicine*, *19*(8), 718–724. https://doi.org/10.1097/PCC.0000000000001609

House Bill 876, 2019 Regular Session, (PA. 2019). https://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cfm?syear=2019&sind=0&body=H&type=B&bn=0867

Relias Media. (2019, July 1). *Hospital staffing disclosures are alternative to ratio laws*. https://www.reliasmedia.com/articles/144420-hospital-staffing-disclosures-are-alternative-to-ratio-laws

International Council of Nurses (ICN). (2018). Evidence-based safe nurse staffing: position statement. Retrieved from https://www.icn.ch/sites/default/files/inline-files/PS_C_%20Evidence%20based%20safe%20nurse%20staffing_1.pdf

Jansson, M., Syrjälä, H.P., & Ala-Kokko, T.I. (2019). Association of nurse staffing and nursing workload with ventilator-associated pneumonia and mortality: A prospective, single-center cohort study. *Journal of Hospital Infection, 101*, 257-263. https://doi.org/10.1016/j.jhin.2018.12.001

Jones, T., Heui Bae, S., Murry, N., & Hamilton, P. (2015). Texas nurse staffing trends before and after mandated nurse staffing committees. *Policy, Politics, & Nursing Practice, 16*, 79-96. doi: 10.1177/1527154415616254

Jones, J.M. (2019, February 22). *Conservatives greatly outnumber liberals in 19 U.S. states*. Gallup Inc. https://news.gallup.com/poll/247016/conservatives-greatly-outnumber-liberals-states.aspx.

Jun, J., & Faulkner, K. (2018). Scoping review: Hospital nursing factors associated with 30-day readmission rates of patients with heart failure. *Journal of Clinical Nursing, 27*, E1673-E1683. doi: 10.1111/jocn.14323

Juvé-Udina, M. E., Adamuz, J., López-Jimenez, M. M., Tapia-Pérez, M., Fabrellas, N., Matud-Calvo, C., & González-Samartino, M. (2019). Predicting patient acuity according to their

main problem. *Journal of nursing management*, *27*(8), 1845–1858. https://doi.org/10.1111/jonm.12885

Kalisch, B. J., Tschannen, D. H., & Lee, K. (2012). Missed nursing care, staffing, and patient falls. *Journal of Nursing Care Quality, 27*, 6-12. doi: 10.1097/NCQ.0b013e318225aa23

Kasprak, J. (2004). *California RN Staffing Ratio Law.* Retrieved from https://www.cga.ct.gov/2004/rpt/2004-R-0212.htm

Keaton, J. (2019, March 30th,). *DiGirolamo Introduces Bill to Create Safe Nurse Staffing Law*. Retrieved from http://www.pahousegop.com/News/5527/Latest-News/DiGirolamo-Introduces-Bill-to-Create-Safe-Nurse-Staffing-Law-

Koreff, J., Robb, S.W.G. Robb, & Trompeter, G.M. (2020) The sentinel effect and financial reporting aggressiveness in the healthcare industry. *Accounting Horizons*, *34*(1), No. 1, 131-149. https://doi.org/10.2308/acch-52636

Kraljic, S., Zuvic, M., Desa, K., Blagaic, A., Sotosek, V., Antoncic, D., & Likic, R. (2017). Evaluation of nurses' workload in intensive care unit of a tertiary care university hospital in relation to the patients' severity of illness: A prospective study. *International journal of nursing studies*, *76*, 100–105. https://doi-org/10.1016/j.ijnurstu.2017.09.004

Kumpunen, S., Trigg, L., Rodrigues, R. (2014). *Public reporting in health and long-term care to facilitate provider choice.* Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0020/263540/Public-reporting-in-health-and-long-term-care-to-facilitate-provider-choice-Eng.pdf?ua=1

Lasater, K., Aiken, L. H., Sloane, D. M., French, R., Anusiewicz, C. V., Martin, B., Reneau, K., Alexander, M., & McHugh, M. D. (2021). Is Hospital Nurse Staffing Legislation in the

Public's Interest?: An Observational Study in New York State. *Medical Care, 59*(5), 444–450. https://doi.org/10.1097/MLR.0000000000001519

Lasater, K., & Mchugh, M. (2016). Nurse staffing and the work environment linked to readmissions among older adults following elective total hip and knee replacement. *International Journal for Quality in Health Care, 28*, 253-258. https://doi.org/10.1093/intqhc/mzw007

Lake, E. T., Staiger, D. O., Cramer, E., Hatfield, L. A., Smith, J. G., Kalisch, B. J., & Rogowski, J. A. (2020). Association of patient acuity and missed nursing care in U.S. neonatal intensive care units. *Medical Care Research & Review, 77*(5), 451–460. https://doi-org/10.1177/1077558718806743

Law, A. C., Stevens, J. P., Hohmann, S., & Walkey, A. J. (2018). Patient Outcomes After the Introduction of Statewide ICU Nurse Staffing Regulations. *Critical care medicine*, *46*(10), 1563–1569. https://doi.org/10.1097/CCM.0000000000003286

Manojlovich, M. L., Sidani, S., Covell, C., & Antonakos, C. (2011). Nurse dose: Linking staffing variables to adverse patient outcomes. *Nursing Research, 60*, 214-220. https://doi.org/10.1097/NNR.0b013e31822228dc

Mark, B. A., Harless, D. W., Spetz, J., Reiter, K. L., & Pink, G. H. (2013). California's minimum nurse staffing legislation: Results from a natural experiment. *Health services research*, *48*, 435–454. https://doi.org/10.1111/j.1475-6773.2012.01465.x

Mark, B., Harless, D., & Spetz, J. (2009). California's minimum-nurse-staffing legislation and nurses' wages. *Health Affairs (Project Hope), 28*, W326-334. doi: 10.1377/hlthaff.28.2.w326

McAndrew, N. S., Leske, J., & Schroeter, K. (2018). Moral distress in critical care nursing: The state of the science. *Nursing ethics, 25*(5), 552–570. https://doi-org/10.1177/0969733016664975

McHugh, M., Kutney-Lee, A., Cimiotti, J., Sloane, D., & Aiken, L. (2011). Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Affairs (Project Hope), 30*, 202-210. https://doi.org/10.1377/hlthaff.2010.0100

McHugh, M.D, Rochman, M.F, Sloane, D.M, et al. (2016). Better nurse staffing and nurse work environments associated with increased survival of in-hospital cardiac arrest patients. *Medical Care, 54*(1):74-80. https://doi.org/10.1097/mlr.0000000000000456

McHugh, M., Berez, J., & Small, D. (2013). Hospitals with higher nurse staffing had lower odds of readmissions penalties than hospitals with lower staffing. *Health Affairs (Project Hope), 32*, 1740-1747. doi: https://doi.org/10.1377/hlthaff.2013.0613

Mitchell, G. (2019, July 25th). *Queensland nurse ratio legislation 'saving lives and money.'* Nursing times. https://www.nursingtimes.net/news/workforce/queensland-nurse-ratio-legislation-saving-lives-and-money-25-07-2019/

Morley, G., Ives, J., & Bradbury-Jones, C. (2019). Moral distress and austerity: An avoidable ethical challenge in healthcare. *Health Care Anal*. 2019;27(3):185-201. https://doi.org/10.1007/s10728-019-00376-8

National Association of Travel Healthcare Organizations. (2011). *KPMG's 2011 U.S. Hospital Nursing Labor Costs Study.* Prnewswire.com. http://www.natho.org/pdfs/KPMG_2011_Nursing_LaborCostStudy.pdf

National Nurses United (NNU) (n.d.a*). About National Nurses United.* https://www.nationalnursesunited.org/about

National Nurses United (NNU) (n.d.b*). RN staffing ratios: A necessary solution to the patient safety crisis in U.S. hospitals*. https://act.nationalnursesunited.org/page/-/files/graphics/Ratios-ANecessarySolutiontothePatientSafetyCrisisinUSHospitals.pdf

Needleman, Buerhaus, P. I., Stewart, M., Zelevinsky, K., & Mattke, S. (2006). Nurse Staffing In Hospitals: Is There A Business Case For Quality? *Health Affairs, 25*(1), 204–211. https://doi.org/10.1377/hlthaff.25.1.204

New Jersey Department of Health. (2019). *Hospital patient care staffing report.* Retrieved from https://web.doh.state.nj.us/apps2/nursestaffing/quarterly.aspx#select

Nursing Education.org. (2020). *Paths to becoming a registered nurse*. https://www.nursingeducation.org/resources/paths-to-becoming-a-registered-nurse/#:~:text=Although%20there%20are%20variations%20of,in%20Nursing%20degree%20(BSN).

Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act, H.R. 2581, 116th Cong. (2019). https://www.alverno.edu/media/alvernocollege/library/pdfs/apa7bill.pdf

Ohnstad, M., & Solberg, M. (2017). Patient acuity and nurse staffing challenges in Norwegian neonatal intensive care units. *Journal of Nursing Management, 25*(7), 569–576. https://doi.org/10.1111/jonm.12495

Orique, S. B., Patty, C. M., & Woods, E. (2016). Missed nursing care and unit-level nurse workload in the acute and post-acute settings. *Journal of Nursing Care Quality, 31,* 84-89. doi: 10.1097/NCQ.0000000000000140

Oregon Health Authority. (n.d.). *Laws, rules and administration of hospital nurse staffing in Oregon.* https://www.oregon.gov/oha/ph/PROVIDERPARTNERRESOURCES/HEALTHCAREPROVIDERSFACILITIES/HEALTHCAREHEALTHCAREREGULATIONQUALITYIMPROVEMENT/Pages/nursestaffing.aspx

Park, S., Blegen, M., Spetz, J., Chapman, S., & De Groot, H. (2012). Patient turnover and the relationship between nurse staffing and patient outcomes. *Research in Nursing & Health, 35*, 277-288. https://doi.org/10.1002/nur.21474

Patrick, M. (2019). *Analyzing hospital expenses: Breaking down the important costs*. Market Realist. https://marketrealist.com/2014/11/analyzing-hospital-expenses/#:~:text=You%20can%20break%20down%20average,the%20biggest%20expenses%20for%20hospitals.

Public Act No. 15-91, CT. Stat. §§ 15-91-1-2 (2015). Retrieved from https://www.cga.ct.gov/2015/ACT/PA/2015PA-00091-R00SB-00855-PA.htm

Rao, A. D., Kumar, A., & McHugh, M. (2017). Better nurse autonomy decreases the odds of 30-day mortality and failure to rescue. *Journal of nursing scholarship: an official publication of Sigma Theta Tau International Honor Society of Nursing*, *49*(1), 73–79. https://doi.org/10.1111/jnu.12267

Reiter, K. L., Harless, D. W., Pink, G. H., & Mark, B. A. (2012). Minimum nurse staffing legislation and the financial performance of California hospitals. *Health services research, 47*, 1030–1050. https://doi.org/10.1111/j.1475-6773.2011.01356.x

Reiter, K. L., Harless, D. W., Pink, G. H., Spetz, J., & Mark, B. (2011). The effect of minimum nurse staffing legislation on uncompensated care provided by California

hospitals. *Medical care research and review : MCRR, 68*(3), 332–351. https://doi.org/10.1177/1077558710389050

Saad L. (2020, July 27). *U.S. conservatism down since start of 2020.* Gallup Inc. https://news.gallup.com/poll/316094/conservatism-down-start-2020.aspx

Safe Staffing for Nurse and Patient Safety Act of 2018, H.R. 5052, 115th Cong. (2018). https://www.congress.gov/bill/115th-congress/house-bill/5052

Schlak, A. E., Aiken, L. H., Chittams, J., Poghosyan, L., & McHugh, M. (2021). Leveraging the Work Environment to Minimize the Negative Impact of Nurse Burnout on Patient Outcomes. *International journal of environmental research and public health, 18*(2), 610. https://doi.org/10.3390/ijerph18020610

Schmeer, K. (2001). Stakeholder analysis guidelines. USAID. https://www.hfgproject.org/stakeholder-analysis-guidelines/

Schneider, P., & Geraedts, M. (2016). Staffing and the incidence of pressure ulcers in German hospitals: A multicenter cross-sectional study. *Nursing & Health Sciences, 18*(4), 457–464. https://doi.org/10.1111/nhs.12292

Seago, A., Davidson, A., & Waldo, A. (2012). Oregon nurse staffing law: Is it working? *The Journal of Nursing Administration, 42*(3), 134–137. https://doi.org/10.1097/NNA.0b013e31824808cb

Service Employees International Union (SEIU) (n.d.). *Nevada safe staffing law*. https://www.seiunv.org/health-care/nv-safe-staffing-law/#:~:text=The%20law%3A,quality%20patient%20care%20is%20provided.

Serratt, T. (2013). California's Nurse-to-Patient Ratios, part 2. *Journal of Nursing Administration, 43*(10), 549–553. https://doi-org. /10.1097/NNA.0b013e3182a3e906

Shin, J.H., Koh, J.E., Kim, H.E., Lee, H.J., & Song, S. (2018). Current status of nursing law in the United States and implications. *Health Systems and Policy Research, 5*, 1-7. https://doi.org/10.21767/2254-9137.100086

Shelly, T. (2019, March 21). *Hospitals fighting against bills to establish mandatory nurse patient ratios.* Heart of Illinois ABC News. https://hoiabc.com/2019/03/21/hospitals-fighting-against-bills-to-establish-mandatory-nurse-patient-ratios/

Sloane, D., Smith, H., McHugh, M., & Aiken, L. (2018). Effect of changes in hospital nursing resources on improvements in patient safety and quality of care. *Medical Care, 56*(12), 1001–1008. https://doi.org/10.1097/mlr.0000000000001002

Smith, A. (2017). Trade mandated ratios for collaboration. *Nursing Management, 48*(11), 38–43. https://doi.org/10.1097/01.NUMA.0000526068.32888.4b

Stainton, L.H. (2019, November 21). Legislation would put nurses — not state law — in charge of staffing levels. NJ Spotlight News. https://www.njspotlight.com/2019/11/legislation-would-put-nurses-not-state-law-in-charge-of-staffing-levels/

Sun R., Karaca Z., &, Wong, H.S. (2018, January). *Trends in hospital inpatients stays by age & payer, 2000–2015.* Agency for Healthcare Research and Q-HCUP Statistical Brief #235. www.hcup-us.ahrq.gov/reports/statbriefs/sb235-Inpatient-Stays-Age-Payer-Trends.pdf

Statista. (2020). *Percentage of U.S. hospital costs in 2016, by type of expense*. https://www.statista.com/statistics/204985/percent-of-hospital-costs-by-type-of-expense/#:~:text=The%20greatest%20expense%20of%20hospitals,contribute%20significantly%20to%20the%20economy.

Teitelbaum, J. B., & Wilensky, S. E. (2017). *Essentials of health policy and law* (3rd ed.). Burlington, MA: Jones & Bartlett Learning.

Thayer, K. (2019). *Patient-nurse ratio bill fails, but nurses aren't giving up*. Retrieved from https://www.chicagotribune.com/lifestyles/ct-life-nurse-staffing-bill-fails-tt-20190604-story.html

Tung, L. (2019, November 29). *Why mandated nurse-to-patient ratios have become one of the most controversial ideas in health care.* WHYY.org. https://whyy.org/segments/why-mandated-nurse-to-patient-ratios-have-become-one-of-the-most-controversial-ideas-in-health-care/

U.S. Government Accountability Office (GAO) (n.d.). *Reports & testimonies.* https://www.gao.gov/reports-testimonies/

Vermont Department of Health. (2019). *Review and compare hospitals using report cards*. Retrieved from http://www.healthvermont.gov/health-statistics-vital-records/health-care-systems-reporting/hospital-report-cards

Vinckx, M.E., Bossuyt, I., & Dierckx de Casterlé, B. (2018). Understanding the complexity of working under time pressure in oncology nursing: A grounded theory study. *International Journal of Nursing Studies, 87,* 60-68. https://doi.org/10.1016/j.ijnurstu.2018.07.010

Washington State Nurses Association. (WSNA). (n.d.). *2017 Staffing transparency and accountability act.* https://www.wsna.org/nursing-practice/safe-nurse-staffing/2017-staffing-transparency-and-accountability-act#:~:text=and%20Accountability%20Act-,2017%20Staffing%20Transparency%20and%20Accountability%20Act,nurse%20staffing%20committees%20in%20hospitals.

Welton, J. M. (2017). Measuring patient acuity: Implications for nurse staffing and assignment. *JONA: The Journal of Nursing Administration, 47*, 471. https://doi.org/10.1097/NNA.0000000000000516

West, E., Barron, D.N., Harrison, D., Rafferty, A.M., Rowan, K., & Sanderson, C. (2014). Nurse staffing, medical staffing and mortality in intensive care: An observational study. *International Journal of Nursing Studies, 51*, 781-794. https://doi.org/10.1016/j.ijnurstu.2014.02.007

Wolkinson, B. & Nichol, V. (2018). *Union-Management negotiations over nurse staffing issues in hospitals*. Lerachapters.org. 214-221. http://www.lerachapters.org/OJS/ojs-2.4.4-1/index.php/LERAMR/article/view/1293

Zuzelo, P.R. (2007). Exploring the moral distress of registered nurses. *Nursing Ethics*, *14*(3):344-359. https://doi.org/10.1177/0969733007075870

Appendix A

Table 1. Nurse Staffing Laws in 14 U.S. States

State	Nurse-to-Patient Ratios	Public Reporting	Nurse Staffing Committees	Specifics	Year Enacted
California	✓			Mandated maximum nurse-to-patient ratios for each hospital unit; use of a patient acuity system to help determine ratios Amended to increase enforcement of law through increased oversight by the California Department of Public Health and financial penalties for repeated ratio violations	1999 Amended 2019
Connecticut			✓	Nurse staffing committee to create or shape staffing policy	2008
Illinois		✓	✓	Public reporting of nurse staffing information Nurse staffing committee to create or shape staffing policy	2003 2007
Massachusetts	✓			Mandated nurse-to-patient ratios in intensive care units **only**, with a maximum ratio of 1:2; use of patient acuity tools	2014
Minnesota				Chief nursing officer or designee required to create staffing plan with input of other RNs	2013

Table 1. Nurse Staffing Laws in 14 U.S. States Continued

State	Nurse-to-Patient Ratios	Public Reporting	Nurse Staffing Committees	Specifics	Year Enacted
Nevada			✓	Nurse staffing committee to create or shape staffing policy Amended to increase enforcement of law through increased oversight and financial penalties; requires staffing matrices be created by committees and followed by hospital administrations	2009 Amended 2013
New Jersey		✓		Public reporting of nurse staffing information	2005
New York		✓		Public reporting of nurse staffing information	2009
Ohio			✓	Nurse staffing committee to create or shape staffing policy	2001

Table 1. Nurse Staffing Laws in 14 U.S. States Continued

State	Nurse-to-Patient Ratios	Public Reporting	Nurse Staffing Committees	Specifics	Year Enacted
Oregon			✓	Nurse staffing committee to create or shape staffing policy Amended to increase enforcement of law through increased oversight and financial penalties; statewide nurse staffing advisory board created	2001 Amended 2015
Rhode Island		✓		Public reporting of nurse staffing information	2005
Texas			✓	Nurse staffing committee to create or shape staffing policy	2009
Vermont		✓		Public reporting of nurse staffing information	2006

Table 1. Nurse Staffing Laws in 14 U.S. States Continued

State	Nurse-to-Patient Ratios	Public Reporting	Nurse Staffing Committees	Specifics	Year Enacted
Washington			✓	Nurse staffing committee to create or shape staffing policy	2008
				Amended to increase enforcement of law through increased oversight and financial penalties; mediation guidelines for impasses between committees and hospitals	2017

Notes. U.S. state nurse staffing laws are of public record and available online.
American Nurses Association. *Nurse staffing advocacy*. https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-advocacy/. Last updated July 2019. Accessed January 6, 2021.
Shin JH, Koh JE, Kim HE, Lee HJ, Song S. Current status of nursing law in the United States and implications. *Health Syst Policy Res*. 2018;5(01):1-7. doi:10.21767/2254-9137.100086

Table 2. State Political Ideologies and the Three Common Types of Nurse Staffing Legislation

Political Ideology	**Nurse-to-Patient Ratios**	**Nurse Staffing Committees**	**Public Reporting**
More liberal than conservative	Massachusetts	Washington	New York, Vermont
Less conservative than average	California	Connecticut, Illinois, Oregon	Illinois, New Jersey, Rhode Island
About average	N/A	Nevada	N/A
More conservative than average	N/A	Ohio, Texas	N/A
Highly conservative	N/A	N/A	N/A

Notes. U.S. state nurse staffing laws are of public record and available online.

American Nurses Association. *Nurse staffing advocacy*. https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-advocacy/. Last updated July 2019. Accessed January 6, 2021.

Jones, J.M. (2019, February 22). *Conservatives greatly outnumber liberals in 19 U.S. states*. https://news.gallup.com/poll/247016/conservatives-greatly-outnumber-liberals-states.aspx. Last updated February 2019. Accessed January 6, 2021.

Shin JH, Koh JE, Kim HE, Lee HJ, Song S. Current status of nursing law in the United States and implications. *Health Syst Policy Res*. 2018;5(01):1-7. doi:10.21767/2254-9137.100086

Table 3. Policy Options by Policy Criteria

Option Criteria	**Nurse-to-Patient Ratios**	**Public Reporting of Nurse Staffing**	**Nurse Staffing Committees**
Supported by Nurse Staffing Evidence Factors			
Nurse-to-Patient Ratios	✓	☒	✓
Nurse Preparation	☒	☒	✓
Patient Acuity	✓	☒	✓
Nurse Autonomy	☒	☒	✓
Cost	Moderate-High	Low-Moderate	Low-Moderate
Political feasibility	Low-Moderate	Moderate-High	Moderate-High
Positive Patient Outcomes Secondary to Policy Implementation	✓	⚠	⚠

Legend for Table 3

✓	Satisfies criteria
☒	Does not satisfy criteria
⚠	Not enough evidence to assess against criteria
Low-Moderate	Indicates a range of either low to moderate cost to hospitals/state governments or political feasibility
Moderate-High	Indicates a range of either moderate to high cost to hospitals/state governments or political feasibility

CHAPTER 3: "IT WOULD BE NICE TO THINK WE COULD HAVE A VOICE": EXPLORING RN INVOLVEMENT IN HOSPITAL STAFFING POLICYMAKING

This chapter was originally published by Marissa P. Bartmess, Carole R. Myers, and Sandra P. Thomas. Marissa P. Bartmess served as lead author on the article and was responsible for content, online form/survey creation, recruitment, data collection, analysis, and writing. Dr. Myers was responsible for providing guidance on online form/survey creation, analysis, and reviewing the manuscript for completeness. Dr. Thomas was responsible for providing guidance on data analysis and reviewing the manuscript for completeness.

Bartmess, M.P., Myers, C.M., & Thomas, S.P. (2022). 'It Would Be Nice to Think We Could Have a Voice': Exploring RN Involvement in Hospital Staffing Policymaking. *American Journal of Nursing*, *122*(10), 22-31. https://doi.org/10.1097/01.NAJ.0000884564.75005.a9

Abstract

Hospitalized patient and nursing outcomes improve when nurses are involved in decision-making practices through shared governance structures. Yet there has been little research investigating how staff nurses are involved in hospital staffing policymaking and how they perceive this process. The study's primary aims were to increase understanding of staff nurses' perceptions of factors that hinder or support nurse involvement in hospital staffing policymaking and about how nurses are, or would like to be, so involved. We also collected nurses' work environment and demographic information to further inform our understanding. This study used a qualitative descriptive approach. Using QuestionPro software, we solicited open-ended responses to semi structured questions to explore the topics of interest. The online form was distributed via social media. Results were analyzed using conventional content analysis. Multiple- choice questions related to demographics and nurse work environments were also included and analyzed using descriptive statistics. Thirty-two staff nurses completed the survey between April 5 May 24, 2021. Identified themes include "We aren't asked": structural barriers

to staff nurse involvement; “No one cares”: workplace culture barriers to staff nurse involvement; and “They’ versus’ “we”: lack of power sharing for staffing decision-making. Participants described feeling powerless with regard to, and having little to no involvement in, hospital staffing policymaking. Yet they expressed their desire to be engaged in this process and offered suggestions for how nurse involvement in such policymaking could be improved. Our findings provide crucial insight into how organizations can address existing structural barriers to nurse involvement, offer more equitable opportunities for nurse involvement, foster more inclusive workplace cultures, and recognize the value of nurse input and autonomy regarding staffing decisions.

Keywords: decision-making, hospitals, nurse staffing, policymaking

Hospital policy development and implementation is often influenced by numerous external factors. These include federal regulations such as the Centers for Medicare and Medicaid Services' (CMS) Conditions of Participation for Hospitals (U.S. Congress, 2022); state regulations such as laws addressing nurse staffing, labor unions, and mandatory overtime (NCSL, 2017); and accreditation programs such as The Joint Commission's accreditation process and the American Nurses Credentialing Center's Magnet Recognition Program (ANCC, 2021). But less is known about internal factors that affect staffing policy development and implementation, such as the degree to which staff nurses have input. Given that RNs comprise the most significant portion (30%) of the hospital industry workforce (US Bureau of Labor Statistics, 2020), their input in such policymaking clearly matters.

Policy has been defined as "a definite course or method of action selected from among alternatives in light of given conditions to guide and determine present and future decisions" (Merriam-Webster, n.d.). Policymaking steps include policy formulation, implementation, and modification; and each step involves decision making. Although there are differences between public and organizational policymaking, these processes have common elements, such as determination of priorities, resource allocation, and implementation specifics (Meacham, 2021). Policymaking occurs at two basic levels: establishing broad policy parameters and translating intentions into results. For this research, which looked at hospital nurse staffing policymaking, we focused on translation.

Nurse involvement in hospital staffing policymaking can take many forms and paths. Such involvement can be mandated by state law (for example, with regard to nurse staffing committees), encouraged by accreditation programs (such as in shared governance initiatives like the Magnet Recognition and Pathway to Excellence programs), or incorporated into a hospital's

overall business model. Nurse involvement in hospital policymaking is integral to concepts like nurse autonomy (Rao et al., 2017), nurse engagement (Brooks Carthon et al., 2019), structural empowerment (Goedhart et al., 2017), shared governance (Kutney-Lee et al., 2016), and nurse decisional involvement (Havens & Vasey, 2005; Kowalik, 2010). These concepts underlie the ways nurses are vested in making decisions based on their professional knowledge about patient care and nursing-related policies. Researchers have found that both patient outcomes and nurse job satisfaction improve when nurses are involved, engaged, and empowered to act autonomously (Brooks Carthon et al., 2019, Goedhart et al., 2017; Kutney-Lee et al., 2016; Rao et al., 2017).

It's important to explore, at the hospital level, how nurses and nurse staffing policy interrelate. Nurses are both affected by hospital policies and are often in charge of carrying out policy-related tasks. During the COVID-19 pandemic, staff nurses have experienced tremendous burdens, including decreases in their overall mental, physical, and emotional health, and even loss of life (Lasater et al., 2021; Sagherian et al., 2020; The Guardian, 2020). Such burdens can be exacerbated by lacking or inadequate hospital policies in place to protect nurses and patients (Eldred, 2020). Although the underlying concepts of nurse involvement in hospital policymaking have been studied, there has been scant research exploring how staff nurses become involved in such policymaking, particularly in areas that significantly affect nurses and patients. Even less is known about what hinders or supports nurse involvement and what this process looks like to practicing nurses. We conducted this study with three aims:

- to increase understanding of staff nurses' perceptions of factors that hinder or support nurse involvement in hospital nurse staffing policymaking;
- to learn more about how nurses are, or would like to be, so involved; and

- to collect nurses' work environment and demographic information in order to better understand characteristics associated with the qualitative data.

Methods

Study Design

The study used a qualitative descriptive design, as elucidated by Sandelowski (2000; 2010), to explore nurse involvement in hospital staffing policymaking. Thus, we sought "straight descriptions" (Sandelowski, 2000, p. 339) on this topic from nurses with varied backgrounds. We recognized that we hold preconceptions about the benefits of concepts that support nurse involvement, such as shared governance and nurse autonomy. That said, no particular theory or conceptual model was preselected to guide data collection or analysis. Instead, we employed naturalistic inquiry and regarded participant responses as truthful accounts of reality to ensure that the results reflected participants' perspectives.

Using QuestionPro's online survey software, we solicited open-ended responses to eight semi-structured questions. We framed our questions in pragmatic terms, so that we could derive specific policy, practice, and future research implications from the responses. The online form also included several multiple-choice questions related to participants' work environments and demographics. Approval for the study was obtained from the University of Tennessee Knoxville's institutional review board before data collection began.

Inclusion criteria for the study were as follows: being an RN, being 18 years of age or older, and working as a direct care staff nurse in acute care or critical access hospitals in the United States during the data collection period. Potential participants would first click through a Captcha prompt to verify that they were human responders and not automated entities. Next, potential participants were asked a screening question to determine whether they met the

inclusion criteria. Those who answered "yes" were directed to a screen where they were asked to provide informed consent and were given researcher contact information. Participants then proceeded to the online form.

Data collection. The study was conducted during the COVID-19 pandemic. The semi-structured questions invited open-ended responses so that nurses could reflect upon their experiences with hospital staffing policymaking prior to and during the pandemic. Because all of the open-ended questions required a response before the online form could be submitted, participants couldn't skip any of them. For the complete list, see *List of Semi-Structured Questions*.

The QuestionPro link was active from April 5 through May 24, 2021. The link and a flyer describing the study were initially distributed via posts on the principal investigator's (MPB) professional social media accounts (Facebook, LinkedIn, and Twitter). The posts were public, meaning that anyone who saw them could share the flyer and online form link by forwarding to potential participants or reposting on other online forums. The accompanying social media script read as follows: "Attention RNs who work in acute care or critical access U.S. hospitals! Please consider participating in this survey by researchers at the University of Tennessee-Knoxville, College of Nursing." When applicable, several hashtags were also used: #nursetwitter, #nursingresearch, #nursingworkforce, #nursing, and #policy. During the period when the link was active, the flyer and link were posted weekly to the aforementioned social media accounts.

The QuestionPro feature of Respondent Anonymity Assurance, which uses measures such as excluding respondents' IP addresses from reports, was applied to ensure participant anonymity. All participants were also assigned a unique numerical identifier, randomly generated by QuestionPro software.

Data analysis. Open-ended text responses were analyzed via conventional content analysis, as described by Hsieh and Shannon (2005). All such responses were imported into an NVivo 12 software file. The principal investigator initially read through the responses to get a sense of the whole, highlighting words and phrases to capture key concepts and perspectives; notes were also taken. Then the highlighted text and notes were used to code the data, and the codes were sorted into categories based upon relationships between the codes. Two more researchers (CRM, SPT) independently repeated this process. After completing their separate analyses, all three met to discuss and agree upon identified emergent themes. Responses to multiple-choice questions were analyzed with descriptive statistics using QuestionPro software.

Results

Thirty-two staff nurses from 14 states and the District of Columbia completed the online form. The sample was diverse in geographic location, years of nursing experience (range, one to 40 years), level of nursing education, hospital designation (Magnet or Pathway to Excellence designation, or both), and nursing specialty. The average time needed to complete the online form was 13 minutes. Three themes were identified: *"We aren't asked": structural barriers to staff nurse involvement; "No one cares": workplace culture barriers to staff nurse involvement;* and *"'They' versus 'we'": lack of power sharing for staffing decision making*. Where supporting quotes are given, participants are identified only by their assigned numbers. For details on participant characteristics, see Table 4 in Appendix B.

"We aren't asked": structural barriers to staff nurse involvement. In response to the question asking participants to describe how staff nurses are involved in staffing policymaking at their hospital, 24 (75%) described either not being involved at all or having no opportunity to be involved. One nurse (N26) stated that "only executives" were involved in the creation of such

policy. Another (N13) stated that "no staff nurses are involved, that's the problem." Eight participants (25%) mentioned some form of involvement, primarily through opportunities to be involved personally or to be represented through staffing committees, councils, surveys, or unions. Of these eight nurses, two reported that their hospitals solicited information from them directly, and another nurse mentioned filling out periodic surveys. A third nurse (N21) stated that because their unit was "small" and staff knew "each other well," they were able to "vocal[ize]" the unit's staffing needs. Yet even when nurses reported having an opportunity to be involved through representation, they often described how such involvement fell short of achieving the desired outcome. One nurse (N19) said, "We have a nursing union that should help but doesn't; nursing isn't involved." Another (N17) commented,

> Only certain people are on the committee, and from certain departments, so not everyone is represented on the committee. Also, every unit works differently, and those demographics are not considered.

Participants frequently described how their day-to-day workload affected their ability to participate fully in hospital staffing policymaking**.** When nurses had more unsafe workloads (inadequate nurse–patient ratios, too many high-acuity patients), they reported that this lessened the time they had to be involved or otherwise impeded their capacity for involvement. One nurse (N11) said, "We run so short every day, there is no time allowed for meetings and shared governance"; another (N31) stated, "Busy just caring for patients… Mentally and physically tired to do much outside of patient care at work."

Regarding the COVID-19 pandemic, most participants reported that it had not affected their ability to be involved because, as one nurse (N23) stated, they were not "involved before

and now it's just survival mode." But a few participants did report that the pandemic worsened their ability to be involved. One nurse (N6) who worked at a government-affiliated hospital even stated that the pandemic had "stripped" nurses of their "worker's rights and crushed their union." Moreover, many opportunities for involvement in hospital staffing policymaking that existed before the pandemic (such as committee meetings) had been put "on hold" or "canceled" (N15). Some participants described how increased workloads and the trauma associated with caring for patients ill with COVID-19 limited their involvement. One (N4) stated,

> Staff meetings are not as frequent … upper leadership not rounding on units as often, ICU beds are in higher demand during COVID, leading to more required overtime/call shifts and travelers on units. Nurse turnover has been higher. Nurses are witnessing more traumatic experiences during the pandemic with increased patient mortality leading to more fatigue/burnout and [they're] likely less willing to be involved in the unit or patient advocacy issues on their days off.

Despite structural barriers to nurse involvement in hospital staffing policymaking both before and during the COVID-19 pandemic, some participants cited a desire to become more involved, for the sake of the nursing profession and the quality of patient care. As one nurse (N4) said, "Patient care and hospitals would look dramatically different if nurses were simply asked what they need to be successful."

"No one cares": workplace culture barriers to staff nurse involvement. Participants overwhelmingly described a workplace culture in which they did not feel valued and often felt powerless. Only one nurse described the workplace culture in positive terms. Several described a

difference between hospital leaders receiving nurses' concerns about staffing and "actually listening" to those concerns. One nurse (N3) said, "Feeling like our voice mattered [would help facilitate our involvement]; change takes a while, and [it] feels like talking gets nothing done." A nurse (N32) who worked at two separate hospitals commented on the differences between the two workplace cultures and their impact on nurse involvement in policymaking:

> One hospital I work in treats their nurses terrible. We are ALWAYS short. We have no support. We have no supplies. Our complaints are met with "suck it up." The other hospital is a much more supportive environment. We always have staff. There is a chain of command for concerns, and I have seen ideas actually take hold. Needless to say, I have already turned in my notice for the first hospital.

Participants also indicated that changes in workplace culture and leadership had to occur if nurses were to be more involved in policymaking. Several nurses described wanting more than just space and opportunities to share their insights and recommendations—they wanted a workplace culture in which their ideas and recommendations mattered. One nurse (N24) expressed doubt that the "administration" was "truly interested in honoring the supposed shared governance model touted by the hospital." Many nurses also wanted leadership to respond to their input and concerns, such as by putting nurses' recommendations into practice or at least actively engaging nurses in conversations that would inform policymaking. As one (N6) said,

> I feel as though we are stuck in our situation as the facility only promotes those with the same ideals. The [attitude that] "that's the

> way we have always done it" runs rampant in our facility. Until a leadership change occurs, [this situation] would be difficult to change.

Another nurse (N20) stated that real change would necessitate the administration taking nurses' recommendations "seriously and understanding dynamics of the unit," with "nurses' voices heard" and their suggestions "implemented."

Many participants described feelings of being at odds with hospital and nursing administration. Only one nurse consistently spoke highly of their workplace culture; most reported feeling that, as one (N13) put it, "management could care less" about them or their insights. One experienced nurse (N14) described encountering this attitude repeatedly: "Essentially nurses are viewed at many of the hospitals I've worked at as providers' assistants. We are expected to keep our head down and just do what is ordered." Two nurses explicitly stated that their lack of involvement in nurse staffing policymaking was most related to "push-back" from "administration" (N16) or "management" (N27). Many participants also felt that leadership wasn't interested in understanding staffing from a staff nurse's perspective. They described how working within such a culture not only impeded their involvement in staffing policymaking, but could also negatively affect patient care. As one nurse (N4) stated,

> Barriers: fear of management retaliation if you speak up (for an unsafe assignment) … unsure of who to talk to about staffing concerns, no opportunity is presented for bedside staff to share their views of safe [nurse–patient] ratios … Nurses may be engaged in staff meetings with management, but in my experience, management tells the nurses what the staffing numbers are [and]

> that the staff may need to pick up extra shifts, but the staff nurses don't express how they feel the ratios [and patient] acuity affect them or their ability to provide quality patient care.

When participants reported feelings of being at odds with "administration," this was often attributed to the administration's lack of understanding or "unfamiliarity" (N19) with patients' health needs and the level and type of nursing care necessary to address those needs safely. As one nurse (N25) reported,

> The policymakers think a nurse is a nurse is a nurse—I work in a highly specialized unit—burn treatment with patients ranging from 2 months to 100 years old. I once heard a supervisor say, "Why do you need so much staff. you only put Band-Aids on people?" We work many times with traveler and pool nurses who don't know how to do what we do—It is very stressful and DANGEROUS!!

Another (N19) said,

> Administration [is] unfamiliar with patient acuity and severity of illness. [They're] only looking at number of patients in unit but not see[ing the] whole.

Participants described that this kind of workplace culture, which existed before the pandemic, worsened during the pandemic. Several described feeling powerless about the situation. One nurse (N14) said, "Nurses again are told to just shut up and take it. The COVID pandemic is just another excuse [for] why things won't change." Another nurse (N28) said that, faced with the staffing challenges associated with the pandemic, the leadership seemed to want

only “bodies, not minds.” Such workplace culture also contributed to participants’ reports of feeling burned out, as they constantly endured unsafe work conditions in order to provide patient care. One nurse (N25) explained,

> We have been talking about lack of staff for at least five years—no one cared or listened and now we are in the middle of a pandemic and we are working dangerously short every shift—the only way we have overcome these challenges is to sacrifice ourselves—no break, no lunch, no time to pee, just trying to do the best for the patient—it is taking a big toll on our staff, and NO ONE CARES!

“‘They’ versus ‘we’”: lack of power sharing for staffing decision making. In describing how staffing decisions were made for their units or hospitals, participants did not center themselves as prominent contributors to the process. Participants often used the term “they”—referring to charge nurses, nursing management, and executive leadership—to describe who oversaw everyday staffing decisions. One (N26) said, “They just try to give the more difficult stuff to more experienced nurses, it’s exhausting”; another (N28) stated, “They staff by the numbers only—no consideration for acuity.” Only five nurses used the term “we” to describe processes in which staff nurses worked with charge nurses to use an acuity chart or tool, make staffing assignments, or decide how many nurses were needed for shifts.

Participants named several factors related to nurse staffing that they felt their hospitals should consider for the sake of both patients and nurses, such as nurse–patient ratios, patient acuity, levels of nursing experience and expertise, and admission and discharge rates. They could readily differentiate among existing staffing plans and policies that did and did not account for these factors. One nurse (N32) who worked concurrently at two hospitals noted that the “good

hospital" took into consideration "nurse-to-patient ratios" and "acuity," whereas "any warm body will do" at the "bad hospital." Another nurse (N2) described how failing to consider patient acuity from the staff nurse's perspective when making staffing decisions could be detrimental to patient care:

> Acuity of the patients plays a role … on our unit, [staff nurses] can have between four and five patients apiece. There is almost never a time where nurses have only three patients. … I know four to five patients does not sound terrible, but we are a high acuity unit, and some of our patients go without the care they need related to these numbers.

The COVID-19 pandemic further worsened such absences of shared staffing decision-making. Many participants described feeling powerless, and at times even, as one (N25) said, "at the mercy of the hospital." During the height of the pandemic, as one nurse (N20) reported, many nurses felt "forced" to take on more patients than they could "realistically care for" and that, because the situation "has been going on" for so long, it would only continue. Again, "they" was the word participants used in speaking about the lack of shared governance. As one (N1) observed, staff nurses

> are not involved. Sure, maybe we can say "no" to unsafe [nurse–patient] staffing ratios, but that realistically doesn't happen. At my hospital, they increased ratios during the pandemic without consulting staff nurses. We had no say. ICU 3:1, [pediatric] ICU 5:1 ... my med–surg unit consistently runs 7:1 ratios.

Discussion

It's well-known that staff nurse involvement in hospital-related governance improves both nurse and patient outcomes (Brooks Carthon et al., 2019, Goedhart et al., 2017; Kutney-Lee et al., 2016; Rao et al., 2017). But it's unclear just how nurse involvement occurs (particularly with regard to nurse staffing policymaking), whether it's meaningful for nurses, and whether it makes a difference in practice. In this study, nurses reported several factors that can impede or facilitate such involvement. These can be broadly categorized as structure-related, workplace culture-related, or specific to power-sharing dynamics.

Our study participants described experiencing several structural barriers to involvement. An institution may offer nurses little or no opportunities to be involved in policymaking (such as through participation in staffing committees or councils). There may be little or no consideration for how unsafe workplace environments and heavy workloads perpetuate nurse burnout. Facilitators to nurse involvement were often the opposites of barriers, and participants offered several suggestions. These included using frequent, anonymous surveys to ask nurses about unit staffing needs and invite solutions to staffing problems; holding staffing committees or council meetings via various times and modalities; having diverse unit representation on such committees or councils; and having enough patient coverage so that staff nurses can attend meetings that occur during their shifts.

Participants also described ways that a traditionally hierarchical and unsupportive workplace culture could impede their involvement. Too often, they felt their input was either not sought or not really considered. They described how a supportive workplace culture—one in which nurses felt their perspectives were sought after and valued—could foster involvement. This is in keeping with findings from other studies demonstrating how staff nurse empowerment and

engagement in shared governance can benefit hospital system, nurse, and patient outcomes (Brooks Carthon et al., 2019; Goedhart et al., 2017; Kutney-Lee et al., 2016). That said, the practical application of these concepts can become muddled and ineffective.

The nurse participants in this study knew what their staffing needs were, and many listed elements they thought should be considered in staffing decisions and policymaking, such as nurse–patient ratios, patient acuity, levels of nursing expertise, and admission and discharge rates. But most (84%) did not center themselves as contributors to day-to-day staffing decisions and policymaking, using the term "they" to describe how others (such as nurse managers or the "administration") were solely in charge of these matters. Some nurses noted that the implementation of shared governance was needed to facilitate their involvement, while others described how their hospital's policy of shared governance fell short in practice and failed to adequately involve them. Given that 34% of participants reported working at a facility with Magnet or Pathway to Excellence (or both) designation, wherein structural empowerment and shared governance are core concepts associated with accreditation (Lal & Pabico, 2021), there is clearly a need to improve practices that actualize those concepts. Further research in this area is warranted.

The themes we identified are similar to themes identified in pre-pandemic qualitative studies conducted to explore nurses' job-related stress and anger. Earlier research led by one of us (SPT) found that nurses "were angry about not being involved in the redesign of their units, not having a place at the table when decisions were being made, and not having sufficient resources to do their jobs" (Thomas, 2009, p.14). Well before the COVID-19 pandemic, nurses often reported feeling powerless and angry about the failure of their work environments to engage them in decisions and policymaking. And a recent study, conducted by Lasater and colleagues among

hospital nurses in Illinois and New York, found that nurses were already experiencing high levels of burnout and unsafe workloads (with averages of 3.3 to 9.7 patients per nurse on adult medical–surgical units) in the months leading up to the pandemic (Lasater et al., 2021). Our study participants reported similar experiences, and echoed feelings of powerlessness and anger related to poor work environments and lack of involvement in staffing policymaking.

In general, workforces need access to resources, support, and opportunities for involvement in order to be empowered (Kanter, 1993). Empowerment has been described essentially as having the "ability to express your opinion, opportunities to make your voices heard[,] and being heard" (Van Bogaert et al., 2016, p. 7). Indeed, as research by Laschinger and colleagues (1997) has indicated, the degree to which staff nurses are involved in decision and policymaking processes is closely related to how empowered they feel. In our study, reported barriers to nurse involvement included a workplace culture wherein decision-making power wasn't shared among staff nurses, management, and administration. And in a study among Belgian staff nurses, lack of communication and traditional hierarchical workplace structures were among the identified barriers to nurse empowerment (Van Bogaert et al., 2016).

Falk-Rafael (2005) has identified four sources of nurses' power: credentials, associations, research, and expertise. Our study participants' responses reflected this, with most naming their nursing credentials, some citing union association, and all naming their nursing expertise as sources that empowered them. But they also described systemic oppression and expressed feeling that their professional power had been taken from them. Participants described ways that hospital leadership exerted what Chinn (2016) has defined as "power-over powers"—powers exerted by individuals in traditional hierarchal structures that are based not upon respectful and collaborative relationships but rather are wielded through dominance and control.

Participants also expressed their desire for what Chinn (2016) calls "peace powers"—those which are empowering, enabling, and collaborative in nature. For example, Chinn (2016) describes how the powers of integration and diversity are invoked when "the group gives ample opportunity for every voice to be heard" and when "every effort is made to acknowledge, integrate, accommodate, and honor each person's perspective" (p. 209). Toward this end, study participants offered practical suggestions, including the aforementioned recommendations to collect nurses' input via frequent, anonymous unit surveys and to ensure diverse unit representation on committees or councils. They wanted to be involved in conversations regarding staffing—and they needed ways to do so that took their work lives and environments into consideration.

Understandably, during the initial months of the COVID-19 pandemic, efforts to realize concepts like shared governance and structural empowerment were put on hold. Some participants even commented that shared governance and policymaking "ceased" during those months as hospitals went into "survival mode." Nevertheless, despite this acknowledgment, the nurses remained adamant that their perspectives should be sought out and valued, especially during public health emergencies. Hess and colleagues (2020) have proposed several measures to improve shared governance and decision-making models even at such times, for example, by incorporating remote options for participation (such as Zoom, Google Hangouts, and others) and strong communication systems (such as nursing unit-based phone or email trees that can branch to other departments or disciplines as needed).

The bigger picture. Nurse staffing shortages, which involve economic, education-related, and work environment considerations, are often cyclical and are likely to worsen during public health crises, when an already stressed workforce can be pushed to the breaking point (ICN,

2021; Johnson et al., 2016; Lasater et al., 2021). Involving nurses in staffing-related policymaking is actually part of the solution, and it's a practice that should be permanently embedded in U.S. hospital systems. At this writing, eight states have passed legislation requiring all hospitals to form and maintain nurse staffing committees (NSCs) (ANA, 2022). For example, in New York, the law emphasizes the role of staff nurses and ancillary health care staff in creating hospital-wide clinical staffing plans; and it gives the state's Department of Health oversight, with the power to impose civil penalties on hospitals that repeatedly violate those plans (New York State Senate, 2021). Some staffing plans include nurse–patient ratio guidelines. In states that have nurse staffing legislation, NSC laws are the most common type of such legislation; yet there has been little research evaluating their impact on nurse and patient outcomes (Bartmess et al., 2021). In our study, two participants who worked in states with existing NSC legislation (Ohio and Nevada) described unsupportive workplace cultures that didn't understand the value of nurse input and didn't encourage nurse involvement. Future researchers should investigate the value of NSCs as perceived by staff nurses and seek to determine whether NSC implementation influences nurse and patient outcomes. Nurse leaders and educators can be instrumental in helping hospital staff nurses to recognize their professional power and encouraging them to own that power in translating abstract concepts like shared governance into practical policymaking.

Implications for practice. The study findings have several implications for nursing practice. First, whether creating an in-house staffing policy or following state staffing mandates, nurse and other hospital leaders should ensure that all staff nurses have equitable opportunities to be involved. For example, nurse leaders could send out quarterly anonymous surveys asking staff nurses about the staffing challenges they face and soliciting solutions. After reviewing the

results, the nurse leaders should then respond to the staff nurses, either formally via email or through an informal video conference. If the nurses' recommendations cannot be implemented, the leadership should provide rationales and propose other ways to address nurses' concerns. Fostering cordial, frequent communication between hospital leadership and staff nurses that results in at least some actionable outcomes will support healthier workplace cultures.

In hospitals with existing staffing committees, nurse leaders and staff nurses can work together to ensure that these committees include nurse representation from all units. Making committee meetings more accessible by incorporating a videoconferencing option and by scheduling meeting times with staff nurses' schedules in mind will support nurse engagement. Disseminating committee meeting minutes or notes to all staff nurses, either by email or group messaging systems, is another practical way to promote communication and nurse involvement.

It's important that staff nurses recognize the value of their individual and collective voices and understand that they have the authority to speak to workplace issues, including hospital nurse staffing. Gaining the confidence to speak up often requires practice and educational support. For example, as new nurses enter practice, they might need more education in policy analysis to help them better identify problems amenable to policy change, evaluate options, and assess stakeholders' perspectives before making policy recommendations. Such education, which ideally will begin in nursing school, can be ongoing as nurses enter the workforce and participate in continuing education programs and professional organizations.

Strengths and limitations. The sample was notably diverse in terms of years of nursing experience, areas of expertise, nursing education, and geographic location. Because we didn't require participants to provide their names on the online form, their anonymity was ensured, and this may have made them more likely to offer their raw, unfiltered experiences and perspectives.

But this also meant that we couldn't cross-reference their names with state boards of nursing to confirm nursing licensure. Data were collected during the COVID-19 pandemic, and it's possible that conditions of acute stress may have contributed to the intensity of participants' responses. Lastly, because data were collected online only, we couldn't explore further the issues and concerns brought forth by the participants, as would have been possible with interviews.

Conclusion

The study findings revealed that involving staff nurses in hospital staffing policymaking requires a holistic, integrated approach, one that considers the role of systemic structures and workplace culture—and that values and emphatically includes staff nurses themselves. Thus, hospital staffing policymaking must address existing structural barriers, ensure supportive workplace cultures, and promote equitable opportunities for staff nurses to engage in staffing policymaking, with consideration for their workloads and schedules.

References

American Nurses Credentialing Center. (2021). *ANCC Magnet Recognition Program®*. https://www.nursingworld.org/organizational-programs/magnet.

Brooks Carthon, Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., Sanders, A. M., Visco, F., Holland, S., Ballinghoff, J., Del Guidice, M., & Aiken, L. H. (2019). Association of nurse engagement and nurse staffing on patient safety. *Journal of Nursing Care Quality, 34*(1), 40–46. https://doi.org/10.1097/NCQ.0000000000000334

Chinn, P. (2016). Dialogue on peace and power. *Nursing Science Quarterly, 29*(3), 208–210. https://doi.org/10.1177/0894318416647169

Eldred, S.M. (2020). Rapidly changing PPE policies sow confusion. *MedScape*. https://www.medscape.com/viewarticle/928948

Falk-Rafael. (2005). Speaking truth to power: nursing's legacy and moral imperative. *Advances in Nursing Science, 28*(3), 212–223. https://doi.org/10.1097/00012272-200507000-00004

Goedhart, N.S, van Oostveen C.J, Vermeulen, H. (2017). The effect of structural empowerment of nurses on quality outcomes in hospitals: a scoping review. *Journal of Nursing Management, 25*(3), 194-206. https://doi.org/10.1111/jonm.12455

Havens, D., & Vasey, S. (2005). The staff nurse decisional involvement scale: Report of psychometric assessments. *Nursing Research, 54*, 376–383. https://doi.org/10.1097/00006199-200511000-00003

Hess, R. G., Jr, Weaver, S. H., & Speroni, K. G. (2020). Shared governance during a pandemic. *Nurse leader, 18*(5), 497–499. https://doi.org/10.1016/j.mnl.2020.05.008

Hsieh, H., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

International Council of Nurses (ICN). (2021). *The global nursing shortage and nurse retention* (Policy brief). https://www.icn.ch/sites/default/files/inline-files/ICN%20Policy%20Brief_Nurse%20Shortage%20and%20Retention.pdf

Johnson, Butler, R., Harootunian, G., Wilson, B., & Linan, M. (2016). Registered nurses: The curious case of a persistent shortage. *Journal of Nursing Scholarship, 48*(4), 387–396. https://doi.org/10.1111/jnu.12218

Kanter, R.M. (1993). *Men and women of the corporation* (2nd ed.). Basic Books.

Kowalik, Y. (2010). A concept analysis of decisional involvement. *Nursing Administration Quarterly, 34*(3), 259–267. https://doi.org/10.1097/NAQ.0b013e3181e702d7

Kutney-Lee, A., Germack, H., Hatfield, L., Kelly, S., Maguire, P., Dierkes, A., Del Guidice, M., & Aiken, L.H. (2016). Nurse Engagement in shared governance and patient and nurse outcomes. *The Journal of nursing administration, 46*(11), 605–612. https://doi.org/10.1097/NNA.0000000000000412

Lal, M. M., & Pabico, C. G. (2021). Magnet® and Pathway: Partners for nursing excellence. *The Journal of nursing administration, 51*(4), 175–176. https://doi.org/10.1097/NNA.0000000000000992

Lasater, K. B., Aiken, L. H., Sloane, D. M., French, R., Martin, B., Reneau, K., Alexander, M., & McHugh, M. D. (2021). Chronic hospital nurse understaffing meets COVID-19: an observational study. *BMJ quality & safety*, *30*(8), 639–647. https://doi.org/10.1136/bmjqs-2020-011512

Laschinger, H.K.S., Sabiston, J.A., & Kutszcher, L. (1997). Empowerment and staff nurse decision involvement in nursing work environments: Testing Kanter's theory of structural

power in organizations. *Research in Nursing & Health, 20*(4), 341–352 https://doi.org/10.1002/(SICI)1098-240X(199708)20:4<341::AID-NUR7>3.0.CO;2-G

Meachum, M. (2021). *Longest's Health policymaking in the United States*. (7th ed.). Health Administration Press. ISBN-13 978-1640552111 & ISBN-10 1640552111

Merriam-Webster. (n.d.). Policy. In Merriam-Webster.com dictionary. Retrieved December 13, 2021, from https://www.merriam-webster.com/dictionary/policy

National Conference of State Legislatures (NCSL). (2017, Feb 23). *Hospital and state legislatures*. Washington, DC. https://www.ncsl.org/research/health/hospitals-and-state-legislatures.aspx.

National Conference of State Legislatures (NCST). (2017, February). *Hospitals and state legislatures.* https://www.ncsl.org/research/health/hospitals-and-state-legislatures.aspx

Rao, A.D., Kumar A., & McHugh, M. (2017). Better nurse autonomy decreases the odds of 30-day mortality and failure to rescue. *Journal of Nursing Scholarship, 49*(1), 73–79. https://doi.org/10.1111/jnu.12267

Sagherian, K., Steege, L. M., Cobb, S. J., & Cho, H. (2020). Insomnia, fatigue and psychosocial well-being during COVID-19 pandemic: A cross-sectional survey of hospital nursing staff in the United States. *Journal of Clinical Nursing*. Advance online publication. https://doi.org/10.1111/jocn.15566

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health, 23*(4), 334–340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0. CO;2-G

Sandelowski, M. (2010). What's in a name? Qualitative description revisited. *Research in Nursing & Health, 33*(1), 77–84. https://doi.org/10.1002/nur.20362

Senate Bill S1168A, NY (2021). https://www.nysenate.gov/legislation/bills/2021/s1168

The Guardian. (2020). *Lost on the frontline*. https://www.theguardian.com/us-news/ng-interactive/2020/aug/11/lost-on-the-frontline-covid-19-coronavirus-us-healthcare-workers-deaths-database

Thomas, S.P. (2009). *Transforming nurses' stress and anger: Steps toward healing* (3rd edition). Springer Publishing.

U.S. Congress. (2022). Code of Federal Regulations: Title 42, Chapter 4, Subchapter G, Part 482. Conditions of participation for hospitals. https://www.ecfr.gov/current/title-42/part-482

US Bureau of Labor Statistics. (2020, April 27). *Registered nurses made up 30 percent of hospital employment in May 2019.* https://www.bls.gov/opub/ted/2020/registered-nurses-made-up-30-percent-of-hospital-employment-in-may-2019.htm

Van Bogaert, P., Peremans, L., Diltour, N., Van heusden, D., Dilles, T., Van Rompaey, B., & Havens, D. S. (2016). Staff nurses' perceptions and experiences about structural empowerment: a qualitative phenomenological study. *PloS one*, *11*(4), e0152654. https://doi.org/10.1371/journal.pone.0152654

Appendix B

Box 1. List of Semi-Structured Questions

1. How are staff nurses involved in nurse staffing hospital policy formation at the primary hospital where you work?
2. What barriers, real or perceived, do staff nurses encounter when engaged in nurse staffing policymaking at your hospital? How have staff nurses overcome those barriers?
3. What would facilitate staff nurses being more involved in nurse staffing hospital policymaking?
4. What external challenges (outside the domains of the hospital, i.e., regional staffing shortages, etc.) in relation to nurse staffing have you and fellow staff nurses experienced? Are there successful ways staff nurses have helped to overcome these challenges?
5. How has the COVID-19 pandemic affected the staff nurse's ability to be involved with nurse staffing hospital policymaking?
6. At your hospital, what factors (or measures) are used to make nurse staffing decisions (nurse-to-patient ratios, acuity, nursing skill mix, etc.)? Please describe all that apply.
7. If your hospital uses a patient acuity classification tool to determine staffing assignments, how is that tool used and who uses that tool? If your hospital does not use a patient acuity classification tool, please type "N/A."
8. Is there anything else you would like to share about your experiences with nurse staffing hospital policymaking?

Table 4. Participant Characteristics (N= 32)

Characteristic	n (%)
Gender	
Female	29 (90.6%)
Male	2 (6.3%)
Prefer not to answer	1 (3.1%)
Race and ethnicity[a]	
Asian	1 (3.1%)
Black or African American	2 (6.3%)
Hispanic, Latinx, or Spanish	2 (6.3%)
White	28 (87.5%)
Age group (years)	
18–24	2 (6.3%)
25–34	15 (46.9%)
35–44	3 (9.4%)
45–54	8 (25.0%)
55–64	4 (12.5%)
State	
California	1 (3.1%)
District of Columbia	1 (3.1%)
Florida	2 (6.3%)
Iowa	1 (3.1%)
Kentucky	1 (3.1%)
Maryland	1 (3.1%)
Montana	1 (3.1%)
Nevada	1 (3.1%)
New Hampshire	1 (3.1%)
New Jersey	3 (9.4%)
North Carolina	7 (21.9%)
Ohio	1 (3.1%)
Pennsylvania	2 (6.3%)
South Carolina	3 (9.4%)
Tennessee	6 (18.8%)
Hospital designation	
Magnet	7 (21.9%)
Pathway	2 (6.3%)
Magnet and Pathway	2 (6.3%)
Neither Magnet nor Pathway	17 (53.1%)
Unsure of status	4 (12.5%)

Table 4. Participant characteristics (N = 32) Continued

Characteristic	n (%)
Union representation	
Yes	9 (28.1%)
No	22 (68.8%)
Unsure	1 (3.1%)
Mandatory Overtime	
Yes	10 (31.3%)
No	20 (62.5%)
Unsure	2 (6.3%)
Years worked as RN	
1–5	15 (46.9%)
6–10	5 (15.6%)
11–15	2 (6.3%)
16–20	3 (9.4%)
21–25	4 (12.5%)
26–30	1 (3.1%)
31–35	1 (3.1%)
36–40	1 (3.1%)
Years worked at current hospital	
1–10	27 (84.4%)
11–20	3 (9.4%)
21–30	1 (3.1%)
31–40	1 (3.1%)
Highest level of nursing education	
Associate	7 (21.9%)
Bachelor's degree	19 (59.4%)
Master's degree	6 (18.8%)
Nursing specialty	
Intensive care	10 (31.3%)
Progressive care or step-down	6 (18.8%)
Medical–surgical	6 (18.8%)
ED	1 (3.1%)
Labor and delivery	3 (9.4%)
Neonatal	1 (3.1%)
Other	5 (15.6%)

[a]Participants had the option to select more than one category.
Note: Because of rounding, percentages may not sum to 100%.

CHAPTER 4: A "VOICE" FOR NURSES OR "LIP SERVICE": EXPERIENCES OF STAFF NURSES WHO HAVE SERVED ON STAFFING COMMITTEES

Abstract

Nurse staffing committees (NSCs) are a strategy for improving nurse staffing and nursing work environments in hospital settings by giving staff nurses opportunities to contribute to staffing decision-making. NSCs may also be mandated by state law, as seen in nine U.S. states, yet little is known about the experiences of staff nurses who have served on NSCs. In this qualitative descriptive study, fourteen registered nurses from five U.S. states with NSC legislation in place for at least three years were interviewed. Four themes were identified: 1) A "well-valued" committee versus the "potential [being] locked away": Committee value, 2) Who "benefits": Staffing committee beneficiaries, 3) "Not just the numbers": Defining "adequate staffing," 4) "Constantly pushing": Committee members' persistence. Hospital leaders' performative, inauthentic shared governance practices can contribute to nurse dissatisfaction and less involvement with staffing decision-making. The results of this study highlight the need to understand better how staff nurse autonomy can be actualized with NSCs and how the perspectives of staff nurses can be better valued within our health systems. If NSC policies continue to be a compromised policy solution between nursing and hospital groups, the policies should be enforceable, evaluable, and contribute to positive patient, nursing, and organizational outcomes; otherwise, the compromise is on paper, but not in practice.

Keywords: nurse staffing committees, policy, decision-making, staffing

Nurse staffing is a critical aspect of hospital functioning because inadequate staffing can result in patient mortality or harm and nurse burnout (Ball et al., 2018; Dall'Ora et al., 2020), whereas adequate nurse staffing contributes to positive patient outcomes and nurse well-being (Lasater et al., 2021; Rubin et al., 2021). Many factors must be considered for nurse staffing to be adequate; nurse: patient ratios (i.e., how many patients per nurse), patient acuity, nursing expertise, and patient turnover (i.e., admissions and discharges), to name a few (Bartmess et al., 2021; ICN, 2018). Nurse staffing factors can be addressed through nurse autonomy. Upholding nurse autonomy encompasses nurses' abilities to act on their nursing knowledge and be involved in decision-making that affects patient care, with shared leadership and healthy work environments as supporting factors (Pursio et al., 2021).

Staff nurses are experts in determining safe and unsafe staffing in their clinical environments. Their perspectives can help determine staffing adequacy to support positive patient outcomes for patients, nurses, and hospital organizations (Van der Mark et al., 2021). When nurses are in positions where they are empowered to make decisions about patient care processes and nursing work environments, patient care improves, nurses are more satisfied with their work environments, and hospitals receive improved patient safety scores (Brooks Carthon et al., 2019; Kutney-Lee et al., 2016; Rao et al., 2017).

Hospital nursing councils or committees generally engage nurses in shared decision-making processes concerning nurse work environments and patient care (Joseph & Bogue, 2016). These committees or councils can be narrow in focus, contributing to the governance of one issue, staff education and best practices for procedures (Embertson et al., 2020), or broader in focus to contribute to the governance of nursing units or improved work environments (Kanninen et al., 2020; Johansen et al., 2019).

Nurse staffing committees (NSC), generally made up of at least 50% staff/direct-patient care nurses, are often tasked with creating staffing plans and working with hospital leaders to promote quality patient care through improved nurse staffing (ANA, n.d.). NSCs can be mandated by state law, as seen in nine U.S. states (ANA, n.d.; Colorado General Assembly, 2022), or can result from hospitals' pursuit of shared governance models (Lal & Pabico, 2021). State laws for NSCs vary regarding what is included in staffing plans and how the laws are enforced. NSC laws do not give staff nurses sole decision-making authority over what staffing plans/processes are approved; instead, their roles in legislative texts are in advisory, recommending capacities through shared decision-making. For this study, the term nurse staffing committee (NSC) abides by the following operational definition: a committee, council, or group where nurse staffing is the primary purpose or central to the group's functioning.

While both nursing and hospital groups are interested in supporting positive patient outcomes through nursing services, the divergence between the two groups often lies in each group's priority. Hospitals often prioritize staffing flexibility to address unanticipated circumstances or support operating margins, while nursing groups prioritize the need for consistent, safe staffing conditions for patients and the nurses caring for them (Gray, 2015; HANYS, 2021). NSC policies are often described as a compromise between nursing and hospital groups to address nurse staffing issues (Gray, 2015; HANYS, 2021). However, NSC legislation may fall short of its intended purpose: to achieve adequate nurse staffing for quality patient care by involving staff/direct care nurses in creating staffing plans or processes. For example, although there is an NSC law in Illinois, nurse unions within that state still advocate for mandated nurse-to-patient ratios (Abraham, 2019), with legislation introduced during the 2021-2022 session (Volpe, 2022). In 2022, nurses in Ohio and Texas (two states with NSC legislation)

organized marches to state legislative buildings to raise awareness of unsafe work conditions, including inadequate staffing levels (Bailey, 2022; Varma, 2022). Additionally, in a qualitative study exploring the concept of nurse involvement in hospital staffing policymaking, researchers identified limited nurse involvement in staffing-related decision-making; this included descriptions of limited involvement from nurses who practiced in two states with NSC policies in place (NV and OH) (Bartmess et al., 2022).

Peer-reviewed NSC research is limited, specifically regarding the impact of state-mandated NSCs on nurse, patient, and hospital system outcomes. After the NSC policy implementation in Texas, researchers identified an increase in RN employment over time and an increase in median RN hours per patient-adjusted day from 2002-2012 (Jones et al., 2015); this could indicate improved staffing levels relative to patient acuity. However, in a recent multistate study inclusive of Texas, Han et al. (2021) identified that, although difference-in-difference estimates were positive for RN hours per patient day among states with NSC legislation in place, the differences were not statistically significant compared to states without NSC legislation.

There is also limited qualitative research to understand the experiences of staff nurses who serve in NSCs. Fitzpatrick et al. (2013) surveyed chief nursing officers (CNOs) to explore policy implementation in Illinois. They found that the committees recommended positive changes to staffing policy, such as staffing changes during admissions and discharges and developing patient acuity systems. In Oregon, Seago et al. (2012) found that although selected hospitals had staffing committees, nursing executives and nurse managers relied on national standards to make most of the staffing and budget decisions rather than nurse input. Although both qualitative and quantitative research about NSCs is limited, existing studies have shown they can provide nurses with opportunities to improve the quality of patient care and nursing

work environments.

Qualitative research to investigate how NSCs contribute to improvements in staffing can increase understanding of policy translation, the value of NSCs, and how they may be improved. Thus, this study serves two purposes: 1) to explore staff nurses' experiences who have served on NSCs and 2) to understand better how NSCs operate.

Methods

We used a qualitative descriptive design (Sandelowski, 2000). As such, we sought "straight descriptions" (Sandelowski, 2000, p. 339) from staff nurses about their experiences with NSCs in states with NSC legislation in place for at least three years. The inclusion criteria for the study were as follows: Registered nurses (RNs) or Licensed Vocational/Practical Nurses (LVNs/LPNs) working as staff/direct patient care nurses who currently served, or had served within the last two years, on NSCs in acute care or critical access hospitals in Connecticut, Ohio, Illinois, Washington, Oregon, Nevada, or Texas. Participants also needed internet access to a phone or computer, as interviews were held over Zoom video conferencing software.

Data Collection

A research flyer was shared through online nursing organization platforms, hospital nurse leaders, state chapters of national nursing organizations, and on social media (Facebook, LinkedIn, and Twitter) starting in March 2022. We also utilized non-confidential nursing email lists obtained via public request forms with the state boards of nursing/boards of health that permitted such requests: Ohio, Oregon, Nevada, and Connecticut. Up to three emails, which included information about the study and the research flyer, were sent to nurses (RNs and LPNs/LVNs) with active licenses on the state-provided lists.

The research flyer contained the first author's contact information, a link to an online screening questionnaire, and a QR code which directed nurses to the consent form. We employed several measures to detect fraudulent responses to the screening questionnaire, including a review of IP address information to identify user locations and multiple questionnaire attempts. On the questionnaire, nurses were asked to provide the first and last name listed on their nursing license, state, and email address. Nurses were informed via the questionnaire that their personal information was only used to verify their nurse licensure online and would not be shared. Once verified as nurses, the first author contacted respondents to set up a Zoom interview. Fourteen registered nurses were interviewed between April 2022 and October 2022. The semi-structured interview questions are listed in Box 1, Appendix C. Interviews were conducted until data saturation was reached. This study is approved by the University of Tennessee-Knoxville (UTK) Institutional Review Board. The first author received funding for this study from the Gamma Chi Chapter of Sigma Theta Tau International Honor Society of Nursing and the Sara Rosenbalm Croley Endowed Dean's Chair held by Dean Victoria Niederhauser at UTK.

Data Analysis

Interview transcripts were analyzed via conventional content analysis (Hsieh & Shannon, 2005). The first author read through all transcripts several times to gain a sense of the whole and used NVivo qualitative software to organize participants' descriptions of their experiences into codes and categories, subsequently organizing related categories to identify themes. Interview transcripts were independently reviewed by the first author and at least one other author. All authors met to refine and finalize themes. Each participant was given a pseudonym for analysis.

Results

This study occurred during the COVID-19 pandemic, and two semi-structured questions allowed nurses to reflect on their experiences with NSCs regarding the COVID-19 pandemic (Box 1). Fourteen staff nurses from five U.S. states with NSC legislation in place for at least three years participated in the study (see Table 5 for a profile of study participants). Four themes were identified: 1) A "well-valued" committee versus the "potential [being] locked away": committee value, 2) Who "benefits": staffing committee beneficiaries, 3) "Not just the numbers": defining "adequate staffing," 4) "Constantly pushing": committee members' persistence.

A "well-valued" committee versus the "potential [being] locked away": committee value

Committee structure and scope.

Activities of the committees varied, and the scope of the committees differed based upon the level of the committee (unit or hospital level). Nurses on unit-level staffing committees often described more autonomy over work schedules and facilitated staffing-related discussions and decision-making within their units. Staffing discussions within the unit-level committees could be relayed to a hospital-wide staffing committee by staff nurses or their unit manager. Staff nurses on hospital-level staffing committees described having more of a discussion and voting process for staffing decision-making across units with nurse managers, nurse executives, and potentially non-nursing committee members or executives. Some nurses described advocating for and requesting "traveler" nurses when needed and recommending methods to address nurse recruitment and retention during staffing crises. For example, Delilah described how her committee was involved in addressing the "big hole" in their staffing during the COVID-19 pandemic by working "heavily to get outside nurses or the travelers," restructuring departments,

and "focusing heavily on recruiting new nurses from the nursing schools."

Per the participants' descriptions of committee operations, the scope of the committees could also differ based on how NSC state laws were interpreted at their institution. For example, some nurses described how they helped create and vote on staffing plans for hospital units but could not provide recommendations to address staffing shortages. Frank related, "the hospital has made it very clear that it's not in the guise of the staffing committee to talk about staffing shortages. We know what we need for staffing plans…but we have no input about trying to get travelers in here."

What makes committees valuable to staff nurses?

Study participants described how the committees were valuable in offering a space for nurses to "voice concerns" that affect staff nurses and patients. However, for many, although concerns would be voiced, "that's where they usually die" with "nothing" being "pushed forward" (Frank); this process was also described as "spinning the wheels" (Ethan). Olivia described how this situation would often contribute to nurses' dissatisfaction and lack of engagement with the committee: "people get so tired of trying to tell them that they're dissatisfied and that they don't have enough staff over and over, and over again, and nothing happens...You just get busy, and you get fed up, and you don't feel like it's making a difference." Participants described finding value in committees so much as they could make a difference. Making a difference to them meant feeling supported by nursing or hospital leadership and seeing their recommendations were valued and incorporated as much as possible:

> I just remember sitting there several times going, 'really? you're not going to fight us on this, or you're actually going to do it?' So, to me that's where it matters is whether or not

> you actually feel like anything that you do or say is at least attempting, if not making a difference (Ethan).

Committee Dynamics.

Participants could create staffing plans and make suggestions based on acuity and intensity. However, several nurses also saw staffing decisions ultimately being decided upon by budgets and, at times, an unwillingness to "put more money into the budget" (Mary). Several participants described how management or administration often approached staffing issues from "an "administrative-budgetary place" instead of an "actual nursing-driven place," and this could lead to "clashing" perspectives (Delilah). As Jessica noted:

> Some of these direct care nurses have written amazing staffing plans…I don't understand how their managers, aside from just saying "no" because of money and budget, there is no logical argument for how they can deny them. And they work at an academic institution that's supposed to value evidence, data, et cetera. But really, what it comes down to at the bottom line is money.

Several participants mentioned how "impasses" between nurses and administration could be overcome by presenting their cases with supportive staffing-related evidence (i.e., assignment despite objection [ADO] forms, patient fall rates, etc.) rather than presenting "emotional baggage":

> They're [administration and management] swayed by "let's look at data, let's bring in our policies." Those are the things that work and those are what speak best… I can't give people emotional baggage. They just don't want it, but they do want numbers and they can utilize those numbers (Irene).

However, the data and the accompanying "voice" of the nurses needed to be accepted by leadership willing to "recognize" the correlations between staffing data, patient, and nursing outcomes; otherwise, "you'll never get the problem fixed" (Mary). When nurses had supportive, collaborative nurse leadership and someone with "real fiscal authority" who was also willing to attend meetings and value the staff nurse perspective, they saw that the committees were much more effective in achieving goals:

> When we first joined, it felt like the council really didn't have a decision-making capability. It was more so just feedback to the manager. As we became a more formalized council and had a new manager come in, that also played a part for sure that we were actually given that decision-making capability. Even if the manager disagreed with it, if the council made that decision, then we would at least trial it and see how it went (Harry).

Study participants understood that these differing perspectives could lead to disagreements. Several nurses welcomed this dialogue as it was "okay to disagree," but not having a "path to resolution" was an issue. Some nurses attributed the impasses to non-collaborative managers or administrators, not enough "teeth" behind the staffing law (i.e., a lack of adequate enforcement), or both. Jessica noted how their state department of health may not be able to financially enforce the NSC law because "it would cost them too much money to levy the fines." Frank went on to describe how even when fines were imposed on hospitals for violating staffing plans, hospitals may continue to violate staffing plans as it could be "easier to pay the institutional fine than allow some of the staffing plans that should be to move forward." Kelly reflected on what makes the committees feel like "lip service" and "just not effective" to her: "maybe it's not the right people are there to make it productive, or the tables are just that unbalanced, or it's the regulation and enforcement piece that makes it not work." However,

having a sense of decisional power was an essential factor in nurses feeling like the committee had value: "I loved that my vote and my voice had power, and I could make changes. I liked that. I liked having that ability to see a problem, communicate that there was a problem, and getting it fixed" (Mary).

Who "benefits": Staffing committee beneficiaries

Benefits to nurses and patients.

Study participants often talked about the benefit of nurses having "a voice" to express their "concerns" and "needs" (Olivia) through their participation on the committees. They also mentioned how committees promoted safe, quality care for their patients. Georgia described her patients as her purpose and how she applied that perspective while serving on the committee: "We're here because of the patient, none of us would be here if they weren't here, so we have to make that experience the best [for them]." Lauren mentioned that as a committee co-chair she was still "trying to create the value" and that she would like "to create more value [for] the bedside nurses that are involved." The benefit of committees was often noted to have duality; beneficial for patients and nurses, with nurses having an opportunity to advocate "for what nurses need" and "to create safer spaces" for patients. Participants often alluded to the connections between quality, safe nursing services, the nurses' well-being, and how the committees served as an opportunity to highlight the intersections between nurses and patients:

> When you don't have nurses, it's physically, mentally draining, which is just a cycle. Am I going to be able to come into work tomorrow and perform my tasks safely without the concern of making mistakes? When bedside nurses are more heavily involved on the staffing committee, I think that adequate staffing outcomes are a lot better because we're

involved with decisions that are being made about us (Barbara).

Benefits to the organization.

In utilizing committees to address the needs of patients and nurses, there was an additional outcome of improvements for the overall organization. Participants noted improvements in nurse "retention" because nurses could "get the schedule they wanted" (Ethan) and cost savings associated with "float pool" solutions to lessen the need for "traveler nurses" (Callie). However, several nurses described how a lack of prioritizing nurse retention on the committees could be a missed opportunity to ensure adequate staffing for the organization: "your senior staff are your infrastructure, your foundation for a house, and we just keep building up, but we're not making sure that that foundation is solid" (Harry). Several nurses also viewed committee recommendations as an "investment," a benefit for hospitals:

> Incremental overtime went down [during the meal and break pilot program] and missed meals and breaks also…So, of course, that's a place where the hospital saves. They are paying a nurse to come in, but there is a trade that you're not paying for those other features. So, it would cost them money to invest in it, but I think it has a lot of intangible things that would be great (Jessica).

"Not just the numbers": Defining "adequate staffing"

Holistic consideration of staffing factors.

Throughout the interviews, participants often talked about "adequate staffing"; what it means to them, how it can be achieved, and the role of committees in this process. Nurses mentioned several factors for "adequate" staffing, including nurse: patient ratios, patient acuity and intensity, nurse expertise, and even how nurses were scheduled. Staffing problems and

frustrations often ensued when those factors could not be considered holistically:

> Many managers that have come from California, they're going, 'oh no, no, no, we just need this grid.' Well, this grid is a way to start figuring out your staff, but the intensity and acuity is the component that is most strong in this law, so remember that and don't exclude it. And some of that has to do with your staff that's not as seasoned (Georgia).

> We wanted more like a 5:1 [ratio], that's acceptable, not the greatest. We really wanted 4:1, we really wanted to maintain a ratio that made it safe, and we had time with our patients to recognize [changes], especially surgical floors, they come out an hour later after having major surgery, and we've got five other patients coming in. It's just too much (Mary).

The descriptions of adequate staffing were also relative to the nurse's clinical expertise. Barbara described that her unit would often have the "numbers" of nurses needed for safe patient care but not enough nurses with expertise to care for their unique patient population: "when I talk about adequate staffing, I'm talking about skills and experience level to care for the patients that we do have. I think that's the staffing issues that the committee needs to address and not just worry about the numbers."

Difficulty in achieving adequate staffing.

Several participants described difficulties trying to staff by patient acuity and intensity. Some nurses described how computer systems might be utilized to help determine the acuity of patients on a day-to-day basis but how they could complicate matters if staff nurses' perspectives were not considered. Georgia recalled having to document in such a way that she could earn enough "points" to justify the needs for certain staffing levels and how this could be problematic:

> I take care of the critical incident and then I document after. If I'm going to get dinged because I'm documenting two hours after, that's not fair…it's projecting how much staff needs to be for the following shift, not for the shift you're working. I don't document instantaneously, so I'm really worried about this.

Tension was noted around how adequate staff was determined. It did not work well when only the "numbers" for patient acuity and intensity were considered, especially when they did not have standardized tools to measure patient acuity and intensity. Several nurses described difficulty in trying to fit their bedside expertise into a "black and white" measure:

> There's not really a tool that will give you an exact number of how sick and intense that patient care is. That just is part of what you learn if you're doing the staffing for a unit to observe and to talk with bedside nurses. It's frustrating because the state seems to want very black-and-white ways to measure things and we don't have a way to do that (Lauren).

The fixation on the numbers, in either the direction of staffing levels or acuity/intensity, rather than going by what nurses described as "adequate staffing" could lead to "just quantifying patient care" and not being "about quality anymore" (Barbara).

Some committees had more autonomy over scheduling nurses for their units, and they noted how this was a benefit to ensure "adequate staffing" by trying to "beef up the numbers" several months out with consideration to whether there was a good mix of "senior" and "newer" nurses. The committees devised several solutions to address adequate staffing: "floating" policies, contingency staffing plans, and even creating a childcare service to minimize "call-ins." However, securing adequate staffing was "tricky," and ultimately, there were only so many

solutions that could be brought forward before more staff needed to be hired:

> Nine [nurses] was our par number. Is that necessarily adequate staffing?…One minute, you're fine. You get six admissions in one shift, and all the nurses take on an extra patient and then you're not fine. It's very tricky…Some days, we would feel like we're really hurting up here and we would tell them [nursing supervisors], "hey, I know our numbers look good, but we're really hurting" (Nathan).

"Constantly pushing": Committee members' persistence

Their roles and frustrations.

Participants described holding various roles on the committees. They described themselves as "liaisons" to the units to help create staffing plans and as collaborators, bringing potential solutions to problems with staffing data. They also helped ensure "compliance" with state staffing laws, "encouraged nurses to have a voice" by facilitating staff nurse engagement on the committees, and created "the plans for safe patient care, to protect the patients and to protect the nurses." However, nurses also experienced "frustration" on the committees, which often stemmed from a lack of decisional power to "actually make a difference," "vague" staffing laws that were not adequately enforced, unsupportive or uncompromising leadership, a lack of productivity, or change being "slow." Some nurses commented on how exhausting it was to keep up their efforts when it felt like they were "clinging for every little gain to keep staffing safe" (Kelly). As Irene described: "we fight and fight and fight and fight, but they just rotate management out where we don't get rotated out as often…sometimes people are like, 'I'm so done, I don't want to fight anymore with this. It's not going anywhere.'"

Their drive and persistence.

Despite most nurses (twelve) experiencing some degree of "frustration" on the committees, there was a persistence noted among them: to keep "pushing," "advocating," "listening," and "fighting" to make staffing safer for patients and nurses. For example, Frank consistently called his "governing body" for staffing law guidance when staffing plans were violated. Even if nurses were not listened to by the administration or management, they were "stubborn enough to stay on those committees to still be heard" (Ethan). Kelly reflected on why she liked being on the committee despite these frustrations:

> When I look around our hospital systems, not just my system, I don't see rightness. I don't see fairness. I see sickness and ailments and inefficiencies. I want to help be the solution…There's something in me that drives me to show up. It's like a fire, I just need to fix it.

This constant "pushing" led nurses to reflect on the "gains" of the committee and the differences they were able to make, such as: developing team nursing models, scheduling systems, contingency staffing plans, supporting nurse retention or satisfaction, and even increasing staffing levels. Delilah recalled how this "pushing" helped her committee advocate for and receive safer nurse: patient ratios during the pandemic by explaining to the administration the sequelae of events (i.e., nurses "quit"[ing], poor "morale") that would occur if temporary nurse: patient ratio increases became permanent. Participants saw how continuing to voice their concerns and engage with the "decisions being made" about them could make a difference in their work environments and the patients they care for: "everything went very smoothly on those committees because we were involved. We were constantly pushing for involvement…If you want something done, come talk to us. If you don't speak up, change won't happen" (Nathan).

Discussion

Study participants' sense of decisional power with staffing related to three salient factors: whether nurses had a mechanism for decisional power (i.e., voting processes), felt like their recommendations and staffing evidence were valued, and saw efforts to honor their recommendations or found compromising solutions as much as possible. Although nurses expressed dismay when some of their recommendations were ultimately not implemented, there was a better acceptance of the decisions made if the above factors were present. Several nurses described an illusion of autonomy with staffing decision-making, where they may have more decisional power over staffing decision-making on paper, but less of it in practice, as seen in their descriptions of the committees as "lip service" or the "potential [being] locked away." Consistent with existing literature, there is a need for sufficient decision-making capability, authentic leadership, and healthy work environments to support professional autonomy (Pursio et al., 2021).

Study participants described how committees provided opportunities to advocate for the needs of patients and nurses, with nurses connecting that what happens to them can impact patient care; this is consistent with other findings where burnout in nursing is associated with nurse-reported poor patient care quality and adverse patient events (Dall'Ora et al., 2020). For example, depersonalization, a dimension of burnout, has increased the risk of pressure ulcers, patient falls, medication errors, surgical infections, transfusion reactions, and patient/family complaints (ORs: 1.06-1.08) (Kakemam et al., 2021). NSCs have the capability to address the inter-connected challenges of improving outcomes of hospitalized patients and addressing issues associated with nurse burnout, dissatisfaction, and retention. However, there is insufficient evidence of the effectiveness of state-mandated NSCs. As identified in this study, existing

variations in the implementation and operation of NSCs across and within hospitals can impede the evaluation of NSC effectiveness. Multi-factorial analyses, which include the perspectives of staff nurses, nurse managers and executives, physicians, and payors across multiple hospitals and states, are necessary to evaluate NSC structures, processes, and contributions to patient outcomes and costs.

Several respondents in the present study noted that NSCs were an investment for the organization, saying their staffing recommendations, such as increasing staff levels or investing in nurse retention efforts, could support long-term hospital cost savings. Similarly, Nadolski et al. (2017) found that improving staffing ratios in their neuroscience unit with consideration to patient acuity (i.e., a 1:3 nurse-patient ratio for higher acuity patients and 1:4 for lower acuity patients) contributed to reduced nurse turnover and reduced patient fall rates with injury, with estimated cost savings of $233,600 and $39,398 respectively.

Several study participants also described a lack of decisional power, mentioning staffing recommendations never coming to fruition and feeling they had to consistently "fight" for every small "gain." Like Seago et al.'s (2012) study, respondents noted that many staffing decisions ultimately came down to budgetary considerations and how hospital administrations might not be willing or have the authority to alter budgets. This lack of "fiscal authority" to make staffing plans and recommendations a reality and lack of collaboration may be contributing factors as to why Han et al. (2021) did not see significant increases in RN hours per patient day in states with NSC legislation compared to those without such legislation.

In alignment with existing literature (Bartmess et al., 2021; ICN, 2018), study participants described several factors that must be considered for nurse staffing to be adequate, such as nurse: patient ratios, acuity, and expertise. However, issues arose when one staffing

metric was upheld over the other. There was a sense of reductionism across the nurses' experiences. Often, a single tool or metric was used to determine adequate staffing rather than going by what nurses described as adequate staffing. Even if nurses felt they provided sufficient data to support their staffing recommendations, there was no guarantee that the recommendations would be accepted; this could reflect a view of nurses as resourced based, "units of labor" rather than valuing nurses' contributions as human capital (Yakusheva, & Buerhaus, 2022). A perspective shift in valuing the contributions of nurse capital (i.e., skills, expertise, etc.) and how that relates to patient outcomes and healthcare costs is necessary.

Respondents described a persistence to drive positive change despite experiencing frustrations while serving on the committees. Their perseverance seemed to stem from the committee roles they identified with; to be a voice for patients and nurses or improve staffing processes and systems. Despite committee members' perseverance, they also noted why it was hard to recruit and retain staff nurses to serve on committees (i.e., not feeling like their participation would make a difference). The nurses who served on less collaborative committees described exhaustion in working hard to influence change in staffing plans. In contrast, those who served on more collaborative committees had more contentment with their NSC experience and believed they could make a difference in their institution. Shared governance can support nurse empowerment (Joseph & Bogue, 2016), but only to the extent that governance is truly shared, and nurses can see that their perspectives are valued. As identified in this study, performative, inauthentic shared governance practices from hospital leaders can contribute to nurse dissatisfaction and less involvement. Alternatively, authentic and transformational leadership practices have been shown to support nurse engagement and satisfaction (Abd-EL Aliem & Abou Hashish, 2021; Lindsay & Mathieson, 2022). Future research and credentialing

programs, such as the Magnet Recognition Program, that value shared governance practices, like NSCs, can include metrics that examine nurses' perceptions and satisfaction to identify where there is discord between shared governance theory and practice. One such metric is the nurse decisional involvement scale (Havens & Vasey, 2005).

Implications for Policy and Practice

The implications of this study can be understood through a structure, process, and outcome lens (Donabedian, 2005): 1) what committee organization or policies are in place to effectively involve staff nurses in staffing governance (structure), 2) how are staff nurses involved (process), and 3) how is their involvement impactful for patients, nurses, and hospital organizations (outcome). NSCs are examples of the confluence of policy and practice as they are a mandate to transform workplace cultures and processes by broadly including nurses in staffing decision-making. However, mandating workplace changes, including cultural changes, is complex and challenging to enforce. Minimizing NSC structure and process variation is essential to achieve consistent outcomes. Sources of NSC variation can be existing work environments and how NSC policies are implemented, enforced, and evaluated. Greater attention must be directed at aligning policy intentions with policy results by examining policy implementation (Braithwaite et al., 2018). Evaluating NSC policy implementation within and across organizations is essential for improving NSC policy design.

Nurses experiencing NSC effectiveness and seeing their recommendations make a difference in staffing could support nurse retention in hospital settings. Nurse perceptions of NSC effectiveness are crucial since up to 32% of nurses are considering leaving direct patient care, with inadequate staffing and not feeling listened to at work as top contributors to their intent to leave (Berlin et al., 2022). Staff nurses at all levels must also be involved with NSCs;

even if they do not attend meetings, it is vital to communicate with staff nurse committee representatives and put forth their perspectives as much as possible.

In the present study, the topic of hospital budgets influencing staffing decisions came up frequently, highlighting the untoward consequences of current reimbursement practices. A transition to value-based reimbursement could be instrumental in highlighting nurses' contributions to improved patient outcomes, lower costs, and transformation of the delivery of health care services. Instead of being seen as a labor cost, a significant impediment to nurse staffing in a fee-for-service system, nurses can be seen as generators of revenue and quality care (Pittman et al., 2021). Value-based reimbursement can reveal how nursing services are needed to promote population health and equity (National Academies of Sciences, Engineering, and Medicine, 2021). However, value-based reimbursement methods must also avoid reducing the profession's contributions to task orientation and increasing nurse administrative burden (Lasater, 2014).

Evaluation of the value of NSCs should include a complement of structure, process, and outcome measures, including metrics related to patient outcomes, nurses' professional autonomy and satisfaction with the work environment, and the relationship between these measures. The needed change could be accelerated by the Centers for Medicare and Medicaid (CMS) collecting nurse staffing information (degree of nurse involvement in decision-making, nurse: patient ratios, etc.) and patient outcome information for independent evaluation. Hospitals could also be incentivized to demonstrate how their efforts to improve nurse staffing have contributed to positive patient outcomes. For a summarized list of actionable recommendations, see Box 2.

Limitations

By including nurses from multiple states with different specialties, we gained insight into the experiential commonalities of NSCs across a diverse sample. However, despite multiple recruitment methods, recruiting 14 nurses took six months, and we could not recruit nurses from two states who met the inclusion criteria. Recruitment gaps could relate to the difficulties in reaching staff nurses who meet these criteria and the likelihood that many committee meetings stopped at the onset of the pandemic.

Another limitation is the possible conceptual and practical overlap of NSC laws and nursing recognition models, such as the Magnet® program, which already supports concepts like shared governance (Lal & Pabico, 2021). While this limitation affects the interpretation of the results (i.e., how much of their experiences stemmed from state laws versus recognition models), it does not deter from understanding their experience with NSCs in general.

Conclusion

Unpacking the value of NSCs involves recognizing nurse-perceived factors contributing to committee effectiveness and understanding the potential for committees to have multiple beneficiaries. NSCs have the potential to support nurse retention and satisfaction and positive patient outcomes. However, for this potential to be actualized, nurses must be in systems that value their contributions and extend sufficient staffing decisional power to them. If NSCs continue to be a compromised policy solution between nursing and hospital groups (HANYS, 2021), the policies should be enforceable, evaluable, and contribute to positive patient, nursing, and organizational outcomes; otherwise, the compromise is on paper, but not in practice.

References

Abd-EL Aliem, S.M.F., & Abou Hashish, E. A. (2021). The relationship between transformational leadership practices of first-line nurse managers and nurses' organizational resilience and job involvement: A structural equation model. *Worldviews on Evidence-Based Nursing, 18*(5), 273–282. https://doi.org/10.1111/wvn.12535

Abraham, T. (2019). *States inch forward on nurse staffing laws*. HealthCareDive. https://www.healthcaredive.com/news/states-inch-forward-on-nurse-staffing-laws/554359/

Aiken, L., Sloane, D., Bruyneel, L., Van den Heede, K., Griffiths, P., Busse, R., Diomidous, M., Kinnunen, J., Kózka, M., Lesaffre, E., McHugh, M., Moreno-Casbas, M., Rafferty, A., Schwendimann, R., Scott, P., Tishelman, C., van Achterberg, T., & Sermeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *The Lancet (British Edition), 383*(9931), 1824–1830. https://doi.org/10.1016/S0140-6736(13)62631-8

Aiken, L., Sloane, D., Cimiotti, J., Clarke, S., Flynn, L., Seago, J., Spetz, J., & Smith, H. (2010). Implications of the California nurse staffing mandate for other states. *Health Services Research, 45*(4), 904–921. https://doi.org/10.1111/j.1475-6773.2010.01114.x

American Nurses Association (ANA). (n.d.). Advocating for safe staffing. https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-advocacy/

Bailey, B. (2022, May 12). *Hundreds of nurses rally at Ohio Statehouse to demand change*. 10 WBNS. https://www.10tv.com/article/news/local/hundreds-of-nurses-rally-at-ohio-statehouse-demand-change/530-9298b646-7b83-4035-b98f-0b553cb7927d

Ball, J., Bruyneel, L., Aiken, L., Sermeus, W., Sloane, D., Rafferty, A., Lindqvist, R., Tishelman, C., & Griffiths, P. (2018). Post-operative mortality, missed care and nurse staffing in nine countries: A cross-sectional study. *International Journal of Nursing Studies, 78,* 10–15. https://doi.org/10.1016/j.ijnurstu.2017.08.004

Bartmess, M., Myers, C. R., & Thomas, S. P. (2021). Nurse staffing legislation: Empirical evidence and policy analysis. *Nursing forum, 56*(3), 660–675. https://doi.org/10.1111/nuf.12594

Bartmess, M.P., Myers, C.R., & Thomas, S.P. (2022). 'It Would Be Nice to Think We Could Have a Voice': Exploring RN Involvement in Hospital Staffing Policymaking. *American Journal of Nursing, 122*(10), 22-31. https://doi.org/10.1097/01.NAJ.0000884564.75005.a9

Berlin, G., Lapointe, M., & Murphy, M. (2022, February 17). *Surveyed nurses consider leaving direct patient care at elevated rates.* McKinsey & Company. https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/surveyed-nurses-consider-leaving-direct-patient-care-at-elevated-rates

Braithwaite, J., Churruca, K., Long, J.C., Ellis, L.A., & Herkes, J. (2018). When complexity science meets implementation science: A theoretical & empirical analysis of systems change. *BMC Medicine, 16* (63). https://doi.org/10.1186/s12916-018-1057-z

Brooks Carthon, J., Hatfield, L., Plover, C., Dierkes, A., Davis, L., Hedgeland, T., . . . Aiken, L.H. (2019). Association of nurse engagement and nurse staffing on patient safety. *Journal of Nursing Care Quality, 34*, 40-46. https://doi.org/10.1097/NCQ.0000000000000334

Chapter 257, Nurse Staffing, TX. Stat. §§ 257-001-005. (2009). Retrieved from https://statutes.capitol.texas.gov/Docs/HS/htm/HS.257.htm

Colorado General Assembly. (2022). HB22-1401, hospital nurse staffing standards. https://leg.colorado.gov/bills/hb22-1401

Dall'Ora, C., Ball, J., Reinius, M., & Griffiths, P. (2020). Burnout in nursing: a theoretical review. *Human resources for health*, *18*(1), 41. https://doi.org/10.1186/s12960-020-00469-9

Donabedian, A. (2005). Evaluating the quality of medical care. 1966. The Milbank quarterly, 83(4), 691–729. https://doi.org/10.1111/j.1468-0009.2005.00397.x

Embertson, A., Ernst, N., Yoder, J., Monroe, L., & Hess, M. (2020). Development of a Nurse-Led Competency-Based Program for Therapeutic Endoscopy: The Formation of the Nurse Product Procedure Group. *Gastroenterology nursing : the official journal of the Society of Gastroenterology Nurses and Associates*, *43*(6), E217–E224. https://doi.org/10.1097/SGA.0000000000000501

Fitzpatrick, T., Anen, T., & Soto, E. (2013). Nurse staffing: the Illinois experience. *Nursing Economic$*, *31*(5), 221–229. http://www.nursingeconomics.net/cgi-bin/WebObjects/NECJournal.woa

Gray, C. (February 18, 2015). *Hospital association buckles at bipartisan nurse staffing legislation.* https://www.thelundreport.org/content/hospital-association-buckles-bipartisan-nurse-staffing-legislation

Han, X., Pittman, P., & Barnow, B. (2021). Alternative Approaches to Ensuring Adequate Nurse Staffing: The Effect of State Legislation on Hospital Nurse Staffing. *Medical care*, *59*(Suppl 5), S463–S470. https://doi.org/10.1097/MLR.0000000000001614

Havens, D., & Vasey, S. (2005). The staff nurse decisional involvement scale: Report of psychometric assessments. *Nursing Research, 54*, 376–383. https://doi.org/10.1097/00006199-200511000-00003

Healthcare Association of New York State. (HANYS). (2021). Hospital clinical staffing committee law. https://www.hanys.org/government_affairs/state/docs/2021_clinical_staffing_committee_legislation_what_hospitals_need_to_know.pdf

Hsieh, H., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

International Council of Nurses (ICN). (2018). Evidence-based safe nurse staffing: position statement. Retrieved from https://www.icn.ch/sites/default/files/inline-files/PS_C_%20Evidence%20based%20safe%20nurse%20staffing_1.pdf

Jansson, M., Syrjälä, H.P., & Ala-Kokko, T.I. (2019). Association of nurse staffing and nursing workload with ventilator-associated pneumonia and mortality: A prospective, single-center cohort study. *Journal of Hospital Infection, 101*, 257-263. https://doi.org/10.1016/j.jhin.2018.12.001

Johansen, M.L., de Cordova, P. B., & Weaver, S. H. (2019). Nurse Workforce Environment Staffing Councils: An Innovative Approach. *Nurse Leader, 17*(2), 141–146. https://doi.org/10.1016/j.mnl.2018.07.001

Jones, T., Heui Bae, S., Murry, N., & Hamilton, P. (2015). Texas nurse staffing trends before and after mandated nurse staffing committees. *Policy, Politics & Nursing Practice, 16*(3/4), 79–96. https://doi.org/10.1177/1527154415616254

Joseph, M., & Bogue, R. (2016). A theory-based approach to nursing shared governance. *Nursing Outlook, 64*(4), 339–351. https://doi.org/10.1016/j.outlook.2016.01.004

Kakemam, E., Chegini, Z., Rouhi, A., Ahmadi, F., & Majidi, S. (2021). Burnout and its relationship to self-reported quality of patient care and adverse events during COVID-19: A cross-sectional online survey among nurses. *Journal of Nursing Management, 29*(7), 1974–1982. https://doi.org/10.1111/jonm.13359

Kanninen Juvé-Udina, M., González-Samartino, M., López-Jiménez, M., Planas-Canals, M., Rodríguez-Fernández, H., Batuecas Duelt, I., Tapia-Pérez, M., Pons Prats, M., Jiménez-Martínez, E., Barberà Llorca, M., Asensio-Flores, S., Berbis-Morelló, C., Zuriguel-Pérez, E., Delgado-Hito, P., Rey Luque, Ó., Zabalegui, A., Fabrellas, N., & Adamuz, J. (2020). Acuity, nurse staffing and workforce, missed care and patient outcomes: A cluster-unit-level descriptive comparison. *Journal of Nursing Management, 28*(8), 2216–2229. https://doi.org/10.1111/jonm.13040

Kanninen, T., Häggman-Laitila, A., Tervo-Heikkinen, T., & Kvist, T. (2022). Nurses' critical reflections of working in unit practice councils—A qualitative interview study. *Journal of Nursing Management, 30*(1), 252–259. https://doi.org/10.1111/jonm.13489

Kramer, M., Maguire, P., & Schmalenberg, C. (2006). Excellence through evidence: the what, when, and where of clinical autonomy. *The Journal of Nursing Administration, 36*(10), 479–491. https://doi.org/10.1097/00005110-200610000-00009

Kutney-Lee, A., Germack, H., Hatfield, L., Kelly, S., Maguire, P., Dierkes, A., Del Guidice, M., & Aiken, L.H. (2016). Nurse Engagement in shared governance and patient and nurse

outcomes. *The Journal of nursing administration, 46*(11), 605–612. https://doi.org/10.1097/NNA.0000000000000412

Lal, M. M., & Pabico, C. G. (2021). Magnet® and Pathway: Partners for nursing excellence. *The Journal of nursing administration, 51*(4), 175–176. https://doi.org/10.1097/NNA.0000000000000992

Lasater, K. B. (2014). Invisible economics of nursing: analysis of a hospital bill through a Foucauldian perspective. *Nursing philosophy: an international journal for healthcare professionals, 15*(3), 221–224. https://doi.org/10.1111/nup.12040

Lasater, K. B., Aiken, L. H., Sloane, D. M., French, R., Anusiewicz, C. V., Martin, B., Reneau, K., Alexander, M., & McHugh, M. D. (2021). Is hospital nurse staffing legislation in the public's interest?: An observational study in New York state. *Medical Care, 59*(5), 444–450. https://doi-org/10.1097/MLR.0000000000001519

Lindsay, S.L., & Mathieson, K. M. (2022). Authentic leadership: Does it relate to job satisfaction and engagement? *Nursing Management, 53*(6), 24–30. https://doi.org/10.1097/01.NUMA.0000831416.21965.e2

McDonald, B. (2019). Utilizing nurse staffing committees to engage direct care nurses in developing alternative shift lengths. *Nurse Leader, 17*(2), 147–150. https://doi-org/10.1016/j.mnl.2018.08.006

McHugh, M., Aiken, L., Sloane, D., Windsor, C., Douglas, C., & Yates, P. (2021). Effects of nurse-to-patient ratio legislation on nurse staffing and patient mortality, readmissions, and length of stay: a prospective study in a panel of hospitals. *The Lancet (British Edition).* Online ahead of print. https://doi.org/10.1016/S0140-6736(21)00768-6

Nadolski, Britt, P., & Ramos, L. C. (2017). Improving Staffing and Nurse Engagement in a Neuroscience Intermediate Unit. The Journal of Neuroscience Nursing, 49(3), 169–173. https://doi.org/10.1097/JNN.0000000000000278

National Academies of Sciences, Engineering, and Medicine. (2021*). The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity*. Washington, DC: The National Academies Press. https://doi.org/10.17226/25982

Oregon Health Authority. (n.d.). *Laws, rules and administration of hospital nurse staffing in Oregon*. Oregon.gov. https://www.oregon.gov/oha/ph/PROVIDERPARTNERRESOURCES/HEALTHCAREPROVIDERSFACILITIES/HEALTHCAREHEALTHCAREREGULATIONQUALITYIMPROVEMENT/Pages/nursestaffing.aspx.

Pittman, P., Rambur, B., Chan, G.K., Cooke, C., Cummins, M. Leners, C., Low, L.K., Meadows-Oliver, M., Shattell, M. Taylor, C., & Trautman, D. (2021). Value-based payment: What does it mean for nurses? *Nursing Administration Quarterly, 45*, 175-186. https://doi.org/10.1097/NAQ.0000000000000482

Pursio, K., Kankkunen, P., Sanner-Stiehr, E., & Kvist, T. (2021). Professional autonomy in nursing: An integrative review. *Journal of nursing management, 29*(6), 1565–1577. https://doi.org/10.1111/jonm.13282

Rao, A. D., Kumar, A., & McHugh, M. (2017). Better nurse autonomy decreases the odds of 30-day mortality and failure to rescue. *Journal of nursing scholarship: an official publication of Sigma Theta Tau International Honor Society of Nursing*, *49*(1), 73–79. https://doi.org/10.1111/jnu.12267

Rubin, B., Goldfarb, R., Satele, D., & Graham, L. (2021). Burnout and distress among nurses in a cardiovascular centre of a quaternary hospital network: a cross-sectional survey. *CMAJ open*, *9*(1), E19–E28. https://doi.org/10.9778/cmajo.20200058

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health*, *23*(4), 334–340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0. CO;2-G

Seago, J., Davidson, S., & Waldo, D. (2012). Oregon nurse staffing law: Is it working? *The Journal of Nursing Administration*, *42*(3), 134–137. https://doi.org/10

Service Employees International Union, Nevada Local 1107. (n.d.). Nevada safe staffing law. Seiunv.org. https://www.seiunv.org/health-care/nv-safe-staffing-law/

Van der Mark, C., Vermeulen, H., Hendriks, P., & Oostveen, C. (2021). Measuring perceived adequacy of staffing to incorporate nurses' judgement into hospital capacity management: a scoping review. BMJ open, 11(4), e045245. https://doi.org/10.1136/bmjopen-2020-045245

Varma, T. (2022, May 12). *Nurses protest at Texas Capitol to bring awareness to working conditions, staffing shortages.* KVUE, ABC. https://www.kvue.com/article/news/local/nurses-march-texas-capitol-better-working-conditions/269-4bda3c2b-df26-4a1c-a92f-17a09e9d36a4

Volpe, K. D. (2022, January 7). *Illinois nurse staffing legislation predicted to prevent deaths, lower costs*. Clinical Advisor. https://www.clinicaladvisor.com/home/topics/hospital-medicine-information-center/illinois-nurse-staffing-legislation-predicted-prevent-deaths-lower-

costs/#:~:text=The%20Safe%20Patient%20Limits%20Act,all%20hospitals%20in%20the%20state.

Washington State Nurses Association. (n.d.). 2017 Staffing transparency and accountability act. Wsna.org. https://www.wsna.org/nursing-practice/safe-nurse-staffing/2017-staffing-transparency-and-accountability-act#:~:text=and%20Accountability%20Act-,2017%20Staffing%20Transparency%20and%20Accountability%20Act,nurse%20staffing%20committees%20in%20hospitals.

Yakusheva, O., Rambur, B., & Buerhaus, P. I. (2022). Value-informed nursing practice: What is it and how to make it a reality. *Nursing outlook*, *70*(2), 211–214. https://doi.org/10.1016/j.outlook.2022.01.001

Appendix C

Box 1. List of Semi-Structured Interview Questions

Please tell me about your experience on the nurse staffing committee

Let's about how the committee operates. Take me to a typical meeting of your committee *if unclear/not mentioned* such as agenda items, processes, and outcomes. Potential follow-up questions:

- How does the committee communicate with other nurses who are not on the committee?
- How does the committee communicate with hospital leaders, such as the chief nursing officer or other members of the hospital leadership team?
- Who is on the committee?
- What written policies does your committee have? *if unclear/not mentioned* Such as membership, roles of members, terms of members, the main task of the committee, frequency of meetings, etc.

Please describe your role as a committee member

Please tell me what has worked well on nurse staffing committees

- Follow up- please provide an example of that experience

Please tell me what has not worked well on nurse staffing committees

- Follow up- please provide an example of that experience

How would you describe the value of the committee?

- Follow up- What would you say you value the most?

How, if at all, has the COVID-19 pandemic changed your perception and/or your experiences with the nurse staffing committee?

How have nurse staffing committee meeting procedures changed during the COVID-19 pandemic?

If you could say one thing about your experience on the nurse staffing committee, what would that be?

Is there anything else you would like to share about your experiences?

Box 2. Policy and Practice Recommendations

- Mandate the collection of nurse-sensitive metrics related to staffing, patient outcomes, and costs by CMS and accreditation bodies.
- Evaluate the effectiveness of NSCs, including implementation and operation specifics, in a systematic way by multiple stakeholders (staff nurses, administration, etc.); modify policies, as needed, based on evidence.
- Employ more advanced financial analyses that examine nurses' contributions to improved patient outcomes and lower overall costs.
- Empower staff nurses via the implementation of authentic, evidence-based shared governance practices.

Table 5. Participant Characteristics (N= 14)

Characteristic	n (%)
Gender	
Female	10 (71.4%)
Male	4 (28.6%)
Race and ethnicity	
Asian	1 (7.1%)
White, Hispanic	1 (7.1%)
White	12 (85.7%)
Age group (years)	
20-30	1 (7.1%)
31-40	4 (28.6%)
41-50	5 (35.7%)
51-60	3 (21.4%)
61-70	1 (7.1%)
State	
Oregon	6 (42.9%)
Washington	1 (7.1%)
Texas	4 (28.6%)
Ohio	2 (14.3%)
Nevada	1 (7.1%)
Hospital designation	
Magnet	6 (42.9%)
Pathway	1 (7.1%)
Neither Magnet nor Pathway	6 (42.9%)
Critical Access	1 (7.1%)
Highest level of nursing education	
Associates degree	4 (28.6%)
Bachelor's degree	9 (64.3%)
Master's degree	1 (7.1%)
Nursing specialty	
Oncology	2 (14.3%)
Adult Critical Care	3 (21.4%)
Surgical Recovery	1 (7.1%)
Medical-Surgical	2 (14.3%)
Labor and Delivery/Postpartum	1 (7.1%)
Peri anesthesia/Cardiology	1 (7.1%)
Pediatric Critical Care	1 (7.1%)
Pediatric Acute Care	3 (21.4%)
Years worked as a nurse	
4-15	8 (57.1%)
16-27	4 (28.6%)
28-39	1 (7.1%)
40-51	1 (7.1%)

Table 5. Participant characteristics (N = 14) Continued

Characteristic	n (%)
Committee Meeting Frequency	
Monthly	10 (71.4%)
Bi-Monthly	2 (14.3%)
Quarterly	2 (14.3%)
Service Duration on Committee	
1-2.5 years	6 (42.9%)
3-5 years	6 (42.9%)
6-10 years	1 (7.1%)
11+ years	1 (7.1%)
Current or Recent Service	
Current	9 (64.3%)
Recent	5 (35.7%)
Years worked at current hospital	
1-10	9 (64.3%)
11-20	3 (21.4%)
21-30	1 (7.1%)
31-40	1 (7.1%)
Type of Committee	
Hospital-level NSC	11 (78.6%)
Unit-level NSC	3 (21.4%)

CHAPTER 5: CONCLUSION

As identified in this dissertation, nurse staffing is a complex process with many factors to consider supporting adequate staffing in hospital settings. This dissertation focused on the factor of nurse autonomy over staffing, which involves nurse participation in staffing-decision making; a factor that can contribute to the oversight of other staffing factors (ratios, acuity assessment, expertise, etc.). In Chapter Two, we learned that the impacts of nurse staffing committee (NSC) legislation, a means by which nurse autonomy over staffing can occur, are not well-understood and more research is needed in this area. However, before beginning a study focused on NSCs, we needed to first look at the concept of staff nurse involvement in hospital staffing policymaking. It is important to gain an adequate understanding of this concept before proceeding to explore means in which this concept can be actualized in practice, such as through NSCs. Rather than assume NSCs were a potential solution to strengthen staff nurse involvement in hospital staffing policymaking, we first solicited the perspectives of those who possibly had experienced (or would have liked to experience) the phenomenon.

Chapter Three revealed that nurses are not experiencing involvement in hospital staffing policymaking to the degree they would like to; they described feelings of powerlessness but also described why it is important they are involved. Nurses offered suggestions as to how staff nurse involvement in hospital staffing policymaking could be improved, such as through anonymous surveys to elicit feedback, union representation, committees/councils that preside over staffing, and opportunities to attend committee/council meetings that considered their work environments and schedules.

The results from Chapter Three confirmed that staff nurses saw staffing committees and/or councils as a possible solution to strengthen involvement in hospital staffing policymaking. In Chapter Three, nurses also mentioned how workplace culture could impede

their ability to be involved. Furthermore, nurses from states with NSC legislation in place described a lack of involvement in alignment with the rest of the sample. Given the results of Chapter Three, we sought to learn from the experiences of nurses who had recently served on NSCs in states with NSC legislation in place for at least three years (Chapter Four).

By interviewing nurses from multiple states, we gained insight into the experiential commonalities of NSCs across a diverse sample. Nurses on the committees described a variety of experiences, ranging in tone from negative to positive. However, all nurses described an appreciation for the NSCs. Nurses wanted to see NSCs be more effective in achieving adequate staffing for the sake of patients, nurses themselves, and even for the hospital organization. Nurses also wanted to see their staffing recommendations and contributions taken seriously and this involved workplace culture, practice, and policy considerations.

In Chapters Three and Four, workplace culture and whether nurses felt like their recommendations were valued were identified as critical supportive factors for their involvement. However, in Chapter Three the nurses did not describe having a mechanism for involvement (a staffing committee, surveys soliciting feedback, etc.), whereas in Chapter Four they did have a mechanism for involvement, a staffing committee. Despite nurses from both Chapters Three and Four describing frustrating experiences, nurses from Chapter Three described powerlessness while nurses from Chapter Four described feeling empowered in their committee roles to strive for positive change despite frustration. Moving forward it will be important to identify how the sense of empowerment associated with service on an NSC can be extended to nurses who do not actively serve on the committee. This involves strengthening communication between direct-care NSC members and direct care nurses. For example, NSC members in Chapter Four described the benefit of involving direct care nurses in committee

meetings or staffing discussions outside of NSC meetings to gain perspective on staffing issues and support staffing innovation.

While this dissertation has implications for NSC policy and practice (as specified in Chapter Four), this dissertation also opens doors for future research, practice, and policy considerations regarding nurse staffing and nurse value in hospital settings. The conclusion will close with a discussion on the principles of nurse staffing that can be gleaned from this dissertation.

Research

An important next step for nursing research involves identifying the prevalence of staff nurse engagement with nurse staffing policy in general. For example, one nurse in Chapter Four mentioned that they she did not think nurses understood the power they had within their staffing law. Additionally, a handful of nurses in Chapter Three admitted to being "unsure" about whether mandatory overtime was required at their institution, whether they had union representation, and whether their hospitals were recognized as either Magnet or Pathway to Excellence institutions. While these are small numbers, they are enough to spur questions of whether staff nurses have an adequate understanding of the staffing and/or work environment related policies and practices that exist around them and how to effectively leverage existing policies and practices to support positive patient and nursing workforce outcomes in their institutions.

Practice

It is well known that hospital culture and work environments can impact nurses and the patients they care for (Gifford et al., 2002; Copanitsanou et al., 2017), but this dissertation adds to the discussion by identifying connections between hospital culture and nurse involvement in

staffing decision-making. Chapters Three and Four of this dissertation identified how hospital cultures and practices can affect staff nurses' abilities to be involved with staffing decision making, even if nurses serve on committees specifically designed to involve them. Nurses described needing to feel as if their contributions to patient care and staffing recommendations were truly valued by hospital leaders in order for staffing to improve. Given this finding, there are opportunities to improve hospital nursing cultures though organizational and educational efforts. Authentic, transformational hospital leadership practices are known to support staff nurse engagement and satisfaction (Abd-EL Aliem & Abou Hashish, 2021; Lindsay & Mathieson, 2022) but improving hospital cultures can and should also involve efforts by staff nurses. Several nurses in Chapter Four described how being on NSCs broadened their perspectives; to better understand how individual nursing units contribute to the overall hospital and to understand the constraints or difficulties nurse management or administration deals with. Nurses in Chapters Three and Four described wanting collaboration and communication with nurse managers, nurse administrators, and other hospital leaders.

Fostering a culture shift in hospitals, where nurses are truly valued for their expertise, will likely involve upstream efforts, such as efforts during formative educational years to support interdisciplinary collaboration. This effort has already begun in some classroom and clinical simulation nursing coursework (Yordy et al., 2021). An important next step for nursing research will be identifying the impact of interdisciplinary nursing courses and understanding how interdisciplinary work is infused within nursing and other health related curriculums (i.e., curriculums for physicians, health management, etc.).

Policy

In Chapter Four, the topic of hospital budgets and how they influence staffing decision-making came up frequently. This has been documented in previous NSC research (Seago et al., 2012) and is understandable considering that the cost associated with nursing services is an important consideration for hospitals (Chapter Two). One nurse in Chapter Four even described how comprehensive staffing plans created by direct care nurses were ultimately voted down for what she could describe as no other reason except "money and budget." It is difficult to make widespread change in an area without supportive policies and practices. In the case of nurse staffing, researchers and policymakers must consider how hospitals are reimbursed for nursing services and how nursing services contribute to patient outcomes. Creating methods to track and connect the value of nursing services to patient outcomes is a critical next step in supportive nurse staffing. For example, incorporating nurse staffing measures into the Centers for Medicare and Medicaid Services' (CMS) evaluations of value-based payment programs, such as the hospital readmission reduction and hospital-acquired conditions reduction programs, could incentivize hospitals to invest in improved staffing. Nurse researchers can collaborate with regulatory bodies that oversee health care payments (CMS, state departments of health, etc.) to 1) identify nurse staffing measures that are feasible to collect across all hospitals and 2) to determine ways in which these measures can contribute to payment systems that acknowledge the link between nurse staffing and patient outcomes.

Principles for Nurse Staffing

As previously identified, nurse staffing is a complex process with several stakeholders. However, there are some relevant principles that can be applied when considering nurse staffing policy and practice.

Nurse staffing for patients by nurses: a dynamic, human-centered process

The phenomenon of nurse staffing is unique because it can be viewed as both an intervention to improve patient outcomes and a factor that impacts nurse well-being and professional fulfillment. As Chapters Three and Four identified, nurses become discouraged and frustrated when they are reduced to a single measure, such as a body or a number to address the needs of patients. The nurses in this dissertation also described the interconnections between their well-being and the quality-of-care patients were able to receive. While the nursing profession exists to support the health, autonomy, and well-being of others, it is important to remember that nurses themselves are also individuals in need of health promotion, autonomy, and well-being. Nursing is driven by interpersonal relationships between nurses and patients (King, 2007; Travelbee, 1971), yet this perspective should also be applied to the systematic relationships between nurses and patients.

While nurse staffing can be viewed as an intervention to improve or support quality patient care, it is important to remember that nurses are humans with their own sets of life experiences, needs, desires, expertise, and biases. As such, nurse staffing is not easily changed like an intervention in a clinical trial because nurses themselves are not interventions. Rather, nurse skillsets and expertise can support interventions. When we attempt to improve nurse staffing through policy or practice, maintaining a human-centered approach that considers the needs and perspectives of patients and nurses is critical for success.

Nurse staffing is informed by evidence and consistent evaluation by those involved

The existing complexity of nurse staffing coupled by the ever-changing needs of individuals, families, and communities should spur us to look to existing nurse staffing evidence prior to making determinations on best courses of action. There is macro nurse staffing evidence

(i.e., research published in peer-reviewed journals, presented at conferences, etc.) and there is micro nurse staffing evidence (i.e., evaluating the impact of staffing processes and polices within organizations through quality improvement projects). When considering nurse staffing policy, we must ensure that a policy is informed by macro nurse staffing evidence and involves mechanisms by which nurse staffing can be evaluated and improved in practice throughout institutions (generated using micro nurse staffing evidence). It is also important to consider who contributes to the evaluations of nurse staffing in practice. Stakeholder engagement is not a new concept (Silberberg & Martinez-Bianchi, 2019), but it should be applied to nurse staffing effectiveness evaluation. Staff nurses can and should be a part of this evaluation process in ways that are meaningful and consider their work environments as to avoid staffing evaluation becoming a burden. Incorporating multiple stakeholder perspectives in staffing evaluation (nurses, patients, hospital leaders, etc.) can support staffing effectiveness.

Environments of care can impact nurse staffing and subsequently patient outcomes

Heath care environments vary based upon who is a part of the environment, who leads within the environments, existing resources, and practices or ideologies that contribute to the functioning of health care environments. These varying aspects of health care environments can contribute to the culture of an institution. Nurse staffing and patient outcomes can easily reflect their environments, with better environments supportive of improved patient outcomes and nurse satisfaction (Halm, 2019). Nurses might be able to withstand some changes in a few aspects of health care environments (poor leadership changes, temporary staffing shortages, etc.), but too many negative changes without positive correction can contribute to nurse turnover, burnout, and sub-par patient care. This dissertation research was conducted during the Covid-19 pandemic, a time where health care environments with existing negative aspects were compounded with new

ones (namely a lack of resources). Nurses in Chapters Three and Four noted this in their descriptions and reflections on involvement in hospital staffing decision-making. When considering nurse staffing in practice, it is important to consider the environments in which nurses are providing services and what aspects of the environment are contributing to either positive or negative outcomes among patients and nurses. The nurse staffing principles derived from this dissertation are not exhaustive but applying them to nurse staffing policy and practice could support effective staffing processes for patients, nurses, and hospital systems.

References

Abd-EL Aliem, S.M.F., & Abou Hashish, E. A. (2021). The relationship between transformational leadership practices of first-line nurse managers and nurses' organizational resilience and job involvement: A structural equation model. *Worldviews on Evidence-Based Nursing, 18*(5), 273–282. https://doi.org/10.1111/wvn.12535

Copanitsanou, P., Fotos, N., & Brokalaki, H. (2017). Effects of work environment on patient and nurse outcomes. *British Journal of Nursing, 26*(3), 172–176. https://doi.org/10.12968/bjon.2017.26.3.172

Gifford, B. D., Zammuto, R. F., & Goodman, E. A. (2002). The relationship between hospital unit culture and nurses' quality of work life. *Journal of healthcare management / American College of Healthcare Executives, 47*(1), 13–26.

Halm, M. (2019). The influence of appropriate staffing and healthy work environments on patient and nurse outcomes. *American Journal of Critical Care, 28*(2), 152–156. https://doi.org/10.4037/ajcc2019938

King, I. (2007). King's conceptual system, theory of goal attainment, and transaction process in the 21st century. *Nursing Science Quarterly, 20*(2), 109–111. https://doi.org/10.1177/0894318407299846

Lindsay, S.L., & Mathieson, K. M. (2022). Authentic leadership: Does it relate to job satisfaction and engagement? *Nursing Management, 53*(6), 24–30. https://doi.org/10.1097/01.NUMA.0000831416.21965.e2

Seago, J., Davidson, S., & Waldo, D. (2012). Oregon nurse staffing law: Is it working? *The Journal of Nursing Administration, 42*(3), 134–137. https://doi.org/10

Silberberg, M., & Martinez-Bianchi, V. (2019). Community and stakeholder engagement. *Primary care*, *46*(4), 587–594. https://doi.org/10.1016/j.pop.2019.07.014

Travelbee, J. (1971). Interpersonal aspects of nursing. (2d ed.). F. A. Davis Co.

Yordy, M., Lambert, A., & Parker, F. (2021). Introduction to interdisciplinary roles in a nursing leadership course: if I understand you, then i know how to work with you. *Nursing education perspectives*, *42*(6), E127–E128. https://doi.org/10.1097/01.NEP.0000000000000681

VITA

Marissa P. Bartmess completed her undergraduate nursing degree in May 2017 at East Tennessee State University (ETSU). During her time at ETSU, she completed an undergraduate thesis that explored the nurse's experience of patient education. Upon starting her practice as a medical-surgical registered nurse, Marissa began to develop new research questions about the nursing workforce and the quality of patient care. Shortly after, she began her pursuit of a PhD in Nursing degree in Fall of 2018 at the University of Tennessee-Knoxville (UTK).

During her time at UTK, Marissa has had the opportunity to serve as a graduate research assistant, pursue graduate certificates in health policy and nursing education, and receive a well-rounded education regarding nursing research and leadership. Marissa's dissertation focused on policy and practice efforts related to staff nurse involvement in staffing decision-making. She hopes to build on this work in the years to come; combining her love of research, policy, and advocacy to strengthen the nursing profession's ability to provide quality patient care.