2020

Exploring the Nursing Work Environment and Patient Outcomes Associated with Nurse-reported Workplace Bullying: A Mixed Methods Study

Colleen Anusiewicz
University of Alabama at Birmingham

EXPLORING THE NURSING WORK ENVIRONMENT AND PATIENT OUTCOMES ASSOCIATED WITH NURSE-REPORTED WORKPLACE BULLYING: A MIXED METHODS STUDY

by

COLLEEN V. ANUSIEWICZ

PATRICIA A. PATRICIAN, COMMITTEE CHAIR
GORDON L. GILLESPIE
NATALIYA V. IVANKOVA
PENG LI
PAULINE A. SWIGER

A DISSERTATION

Submitted to the graduate faculty of The University of Alabama at Birmingham,
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

BIRMINGHAM, ALABAMA

2020

EXPLORING THE NURSING WORK ENVIRONMENT AND PATIENT OUTCOMES ASSOCIATED WITH NURSE-REPORTED WORKPLACE BULLYING: A MIXED METHODS STUDY

COLLEEN V. ANUSIEWICZ

UNIVERSITY OF ALABAMA AT BIRMINGHAM SCHOOL OF NURSING

ABSTRACT

Workplace bullying (WPB) in nursing is a workplace problem that can undermine the safety culture necessary to minimize adverse patient events and improve health care quality. Nurses continue to experience and report WPB despite a substantial and growing body of evidence reflecting the negative effects of WPB on nurses, published position statements and alerts, and the initiation of workplace violence policies and protocols. To decrease WPB and inform the development of effective anti-bullying interventions, there has been a shift in focus from individual factors and interpersonal relationships among nurses and health care workers to organizational factors that contribute to nurse-reported WPB. Thus, determining the association between the nursing work environment, which is comprised of modifiable organizational factors, and nurse-reported WPB is warranted. Furthermore, poor *nursing* outcomes associated with nurse-reported WPB are well documented. However, there is less empirical evidence establishing a link between nurse-reported WPB and *patient* outcomes. In the context of the demand for safe, high quality patient care, it is important to further explore the associations between nurse-reported WPB and patient outcomes.

The purpose of this dissertation was to explore the nursing work environment and patient outcomes (i.e., nurse-reported quality of care and patient safety grade) associated

with nurse-reported WPB. Using a concurrent Quan + Qual mixed methods research design, this goal was accomplished in a stepwise manner. First, the psychometric properties of the Short Negative Acts Questionnaire (SNAQ), the instrument used to measure WPB in this study, and its ability to identify WPB status in a sample of inpatient staff nurses working throughout Alabama was explored. Second, the associations between the nursing work environment and nurse-reported WPB, and nurse-reported WPB and patient outcomes were quantitatively explored using the identified WPB statuses. Third, a qualitative study was conducted to further understand how nurses' experiences of WPB occurring within the nursing work environment influences their abilities to provide patient care. Lastly, the quantitative and qualitative results were integrated to identify components in each study strand that could enhance and clarify the research phenomenon.

The resulting body of work indicated that the nursing work environment is associated with nurse-reported WPB and, in turn, nurses' experiences of WPB are associated with patient outcomes (i.e., nurse-reported quality of care and patient safety grade) and to some extent, nurses' abilities to provide patient care. Further, this research confirmed that the SNAQ is a reliable and valid instrument to explore WPB in a sample of inpatient staff nurses working throughout Alabama. The findings of this dissertation study are of interest to nursing/health care organization leaders and researchers as they seek to develop and implement strategies to improve health care quality and patient outcomes.

Key words: disruptive workplace behaviors, Short Negative Acts Questionnaire, nursing work environment, patient outcomes, quality, safety

DEDICATION

To

Mom and Dad

ACKNOWLEDGMENTS

"There are three stages to every great work of God; first it is impossible, then it is difficult, then it is done." –Hudson Taylor

"But by the grace of God I am what I am, and his grace toward me was not in vain. On the contrary, I worked harder than any of them, though it was not I, but the grace of God that is with me." –1 Corinthians 15:10 English Standard Version

–

My Father, I am because you are. Through your love, grace, and mercy, you have bestowed upon me spiritual knowledge and wisdom that will guide me forevermore. Thank you for being with me in the day to day. I learned about you most as I readied myself for school in the mornings, during the countless walks to and from campus, and in the car as I drove about Birmingham. I am grateful for the intellectual knowledge I have gained as I have journeyed through this PhD; however, it does not compare to the awakening of my love for you and the enrichment of my faith. Thank you for allowing me to steward such a blessing; I am honored to be a living vessel. Thank you for letting me dream with you and giving me the power and favor to live out such dreams. I stand in complete awe and wonder of you, Oh Lord. All, all of this for your glory, God.

Mom and Dad, I love you both. Thank you for the countless known and unknown sacrifices that you have so selflessly made for my betterment. Your unyielding love, support, patience, and willingness to listen has helped me in ways that words cannot express. I will always cherish the smiles on your faces and the genuine pride and splendor in your eyes as you both entered the room after I defended my dissertation; a sight that is stamped on my heart forever. The ability to share that moment with my two biggest supporters and fans brings me *great* joy. We worked hard for that moment. Thank you for providing me a healthy and loving home where I could learn and grow without pause. The best is yet to come. I am excited for us!

To all my family, thank you for being a part of my team. I am profoundly blessed by your individualized love, support, and presence in my life.

Macy, Markie, and Jessica – you each are as much of a friend to me as you are a colleague. Our relationships represent God's perfect timing as I would not have wanted to be in any other PhD cohort than ours. Truly, my PhD experience would not have been what it was without each of you. Thank you for helping me broaden my worldview and for being there during the good and bad. Over the past three years, you all have witnessed both my best and my worst and continue to love, support, and encourage me. For that, I am forever grateful. Always know that you each hold a *very* special place in my heart. See you all at Disney World!

Dr. Patrician, there are not enough words to adequately express my thankfulness for your mentorship over the past three years. I have resolved that the best thanks can perhaps be achieved through running the vocational race set before me that I firmly believe God used you to help me discover. Objectively, you have mentored me to the completion of my dissertation and a successful defense; however, you have gracefully managed to do so much more than check off that "box." Your demeanor exudes great expectations of those around you and of whom you mentor, but what I admire about you most is how you lead in such a way that empowers, inspires, and instills a healthy work ethic that facilitates success. You established respect and guided me throughout the PhD process while never once diminishing my idealism and inner joy. You are a true leader. Thank you, Dr. Pat. *We* did it!

Thank you to the Robert Wood Johnson Foundation (RWJF) Future of Nursing Scholars Program for believing in the value of nursing and investing in the development of nurse leaders to transform America's health care system. Additionally, thank you to Dr. Karen Meneses and the UAB PhD Program in Nursing for selecting me as a RWJF Future of Nursing Cohort 4 Scholar. I am deeply appreciative of the support I have received from UAB and the Nursing PhD faculty. I would also like to acknowledge the funding support I received from the American Association of Occupational Health Nurses, UPS Foundation, and the Alabama Nurses Foundation.

To all nurses, thank you for your efforts and your servant hearts. May we never lose sight of the value and unique qualities nurses bring to health care delivery. I consider it a privilege to use my education and gifts to the best of my abilities to support each of you and the nursing profession.

–

"Systems awareness and systems design are important for health professionals, but they are not enough. They are enabling mechanisms only. It is the ethical dimensions of individuals that are essential to a system's success. Ultimately, the secret of quality is love. You have to love your patient, you have to love your profession, you have to love your God. If you have love, you can then work backward to monitor and improve the system." –Avedis Donabedian

TABLE OF CONTENTS

Page

LIST OF TABLES

Table *Page*

MEASURING WORKPLACE BULLYING IN A U.S. NURSING POPULATION WITH THE SHORT NEGATIVE ACTS QUESTIONNAIRE

ASSOCIATIONS AMONG THE NURSING WORK ENVIRONMENT, NURSE-REPORTED WORKPLACE BULLYING, AND PATIENT OUTCOMES

HOW DOES WORKPLACE BULLYING INFLUENCE NURSES' ABILITIES TO PROVIDE PATIENT CARE? A NURSE PERSPECTIVE

DISCUSSION

LIST OF FIGURES

Figure *Page*

INTRODUCTION

ASSOCIATIONS AMONG THE NURSING WORK ENVIRONMENT, NURSE-REPORTED WORKPLACE BULLYING, AND PATIENT OUTCOMES

LIST OF ABBREVIATIONS

AHRQ	Agency for Healthcare Research and Quality
ANA	American Nurses Association
ANM	Assistant Nurse Manager
BIC	Bayesian Information Criterion
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMS	Centers for Medicare and Medicaid Services
EFA	Exploratory Factor Analysis
LCA	Latent Class Analysis
NAQ-R	Negative Acts Questionnaire – Revised
OCM	Operational Classification Method
PES-NWI	Practice Environment Scale of the Nursing Work Index
RMSEA	Root Mean-Square Error of Approximation
RN	Registered Nurse
SNAQ	Short Negative Acts Questionnaire
SRMR	Standardized Root Mean Squared Residual
TJC	The Joint Commission
U.S.	United States
WPB	Workplace Bullying

CHAPTER 1

INTRODUCTION

Health care organizations in the United States (U.S.) are under increased scrutiny and financial pressure to provide safe, high quality patient care (Agency for Healthcare Research and Quality [AHRQ], 2018a; Centers for Medicare and Medicaid Services, 2010). Improving the nursing work environment is one approach health care organizations can utilize to enhance care delivery and patient outcomes (Djukic et al., 2013; Institute of Medicine, 2004; Sloane et al., 2018). This approach assumes that organizational factors influence the behaviors of health care workers, including a worker's ability to deliver care (Dang et al., 2016). The nursing work environment is defined as the "factors that enhance or attenuate a nurse's ability to practice nursing skillfully and deliver high quality care" (Swiger et al., 2017, p. 76). Unfavorable nursing work environments are associated with poor nursing outcomes (i.e., burnout, job dissatisfaction, and increased intent to leave) (Aiken et al., 2012; Van Bogaert et al., 2010) that can negatively influence care delivery and patient outcomes (Aiken et al., 2012; Aiken et al., 2002; McHugh et al., 2011). Workplace bullying (WPB) is a prevalent issue that may undermine the nursing work environment necessary for nurses to skillfully practice and deliver care (Dang et al., 2016; The Joint Commission [TJC], 2008; Walrath et al., 2013).

In 2008, TJC issued a sentinel event alert regarding intimidating and disruptive behaviors at work that undermine the culture of safety in health care organizations, contributing to medical errors, poor patient satisfaction, preventable adverse outcomes,

increased patient care costs, and the attrition of qualified health care workers, administrators, and managers (TJC, 2008). This alert called for health care organizations to address the issue of intimidating and disruptive workplace behaviors that threaten health care workers' performance and mandated that health care organizations develop mechanisms to identify and alleviate such behaviors in the workplace (Sousa, 2012). In 2016, TJC again responded to the continued prevalence of disruptive behaviors among health care workers, releasing an advisory on safety and quality issues entitled "Bullying Has No Place in Health Care" (TJC, 2016). In the advisory, the importance of civility among health care workers to promote improvements in quality and safety within health care organizations was highlighted (TJC, 2016).

This chapter will provide the foundation and justification to study nurse-reported WPB that occurs in nursing work environments, and the potential influence this behavior has on patient outcomes. The specific purposes of this chapter are to introduce the concepts under study and present the research problem statement, background and significance, conceptual framework, and an overview of the three papers, including the respective research aims and questions that will guide and inform this three-paper dissertation.

Problem Statement

Despite a substantial and growing body of evidence reflecting the negative effects of WPB on nurses, published position statements and alerts, and the initiation of workplace violence policies and protocols, nurses continue to experience and report WPB (Berry et al., 2012; Crawford et al., 2019). To alleviate the behavior and inform the

development of effective anti-bullying interventions, there has been a shift in focus from individual factors (e.g., personality) and interpersonal relationships among nurses and health care workers to organizational factors that contribute to the presence of nurse-reported WPB (Hutchinson et al., 2006; Mathisen et al., 2012). Thus, determining the association between the nursing work environment and nurse-reported WPB is warranted. Furthermore, poor *nursing* outcomes associated with nurse-reported WPB are well documented (Castronovo et al., 2016; D'Ambra & Andrews, 2014; Laschinger & Fida, 2014; Sauer & McCoy, 2017). However, there is less empirical evidence establishing a link between nurse-reported WPB and *patient* outcomes (Houck & Colbert, 2017). In the context of the demand for safe, high quality patient care, it is important to further explore the associations between nurse-reported WPB and patient outcomes.

Background and Significance

Although nursing is a profession dedicated to the healing of and caring for the public, nurses have been consistently identified as a risk group for WPB (American Nurses Association [ANA], 2015; Waschgler et al., 2013). The high susceptibility has been attributed to the complexities associated with health care, including performance demands, rapid decision-making, interdisciplinary communication, and the daily physical and emotional challenges of patient care (Choi & Park, 2019; Giorgi et al., 2016; Trépanier et al., 2016). Current nurse-reported WPB prevalence data vary by study due to differing conceptual definitions; proliferation of similar, but not identical, concepts (e.g., incivility, horizontal violence, harassment, and disruptive behaviors); and instruments

used to measure WPB. However, researchers estimate that 27% to 80% of nurses have experienced WPB during their nursing career (Sauer & McCoy, 2017).

Significance of the Nursing Work Environment

Safe, high quality patient care is contingent upon interprofessional and intergroup teamwork, communication, and collaborative work environments (TJC, 2008; Vessey et al., 2009). Nurses are critical to ensuring the success of patient safety and quality improvement initiatives; they are the largest sector in the health care workforce (U.S. Department of Labor, Bureau of Labor Statistics, 2012) and provide the greatest number of direct care hours to patients (McHugh & Stimpfel, 2012; Stimpfel et al., 2019; TJC, 2008). Research provides evidence that favorable nursing work environments are associated with better nurse, patient, and health care organizational outcomes (Aiken et al., 2008; Kazanjian et al., 2005; Kutney-Lee et al., 2009). However, WPB that occurs in nursing work environments threatens these outcomes (Sauer & McCoy, 2017; TJC, 2008).

The Impact of WPB on Nurses

The negative outcomes reported by nurses who experience WPB, perpetuated by either nurses or other health care workers, are well documented throughout the nursing literature (Castronovo et al., 2016; Laschinger & Fida, 2014; Sauer & McCoy, 2017). Both poor mental (i.e., depression, anxiety, post-traumatic stress disorder) and poor physical health (i.e., hypertension, chest pain, headaches, gastrointestinal complaints, sleeplessness) are widely reported by nurses who experience WPB (Johnson & Trad,

2014; MacIntosh et al., 2010). Additionally, nurses who experience WPB have reported feelings of intimidation, a hesitation to ask for help or to ask questions related to patient care, and an increase in distraction or inability to concentrate on nursing care tasks (Hutchinson & Jackson, 2013). Although not direct patient outcomes, altered concentration and poor team communication both affect health care workers' decision-making and the ability to deliver safe care (Houck & Colbert, 2017). These outcomes also contribute to decreased work productivity, increased levels of burnout, job dissatisfaction, absenteeism, and an increased intent to leave or turnover (Sauer & McCoy, 2017; Vessey et al., 2009), which can negatively affect health care organizational outcomes (Castronovo et al., 2016; Sauer & McCoy, 2017; Vessey et al., 2009).

The Impact of WPB on Patient Outcomes

Building on the nursing outcomes associated with nurse-reported WPB, there is a reasonably expected association between nurse-reported WPB and patient outcomes (Houck & Colbert, 2017); however, empirical research detailing the association is limited and inconclusive. The general understanding gained from current research is that nurse-reported WPB is associated with poor patient outcomes, including an increase in patient falls (Roche et al., 2010), medication and treatment errors (Farrell et al., 2006; Roche et al., 2010; Rosenstein & Naylor, 2012; Rosenstein & O'Daniel, 2008; Rowe & Sherlock, 2005), and delayed or missed nursing care (Coleman, 2018; Hogh et al., 2018; Roche et al., 2010). Nurse-reported WPB is also associated with adverse events, patient mortality (Farrell et al., 2006; Laschinger, 2014; Rosenstein & Naylor, 2012; Rosenstein &

O'Daniel, 2008), and patient dissatisfaction and complaints (Laschinger, 2014; Roche et al., 2010). However, there is existing empirical evidence that indicates nurses do not perceive WPB to influence job performance (Olsen et al., 2017) or patient safety (Chipps et al., 2013).

Definition of WPB

Throughout the literature, there is consistency regarding three attributes of WPB. First, the targeted individual perceives themselves to be on the receiving end of negative, unwanted behaviors (Leymann, 1996). The perception of the target is scrutinized because perception is subjective. Intentionality of the perpetrator's behaviors is often used by researchers as an attempt to further delineate WPB from other forms of disruptive workplace behaviors (Einarsen et al., 2011). However, because intentionality is difficult to measure, the characteristic should not be included in the definition of WPB (Nielsen & Einarsen, 2018). The second attribute specific to WPB involves the presence of either an actual or perceived power gradient between the perpetrator and target (Einarsen et al., 2009). Unlike horizontal violence, the inclusion of a power gradient produces an increasing sense of defenselessness experienced by the target (Leymann, 1996). Third, WPB is not a one-time incident but rather consists of repeated and persistent exposure to negative, unwanted behaviors for a prolonged time frame (Nielsen, 2009; Nielsen & Einarsen, 2018). The time frame necessary for behaviors to qualify as WPB remains a debate among researchers. While some speculate that a one-time incident of severe WPB is enough to have a lasting, negative impact on a target, others emphasize the importance of including a time frame of at least six months to ensure that the repeated nature of WPB

is being adequately measured (Einarsen et al., 2009; Nielsen, 2009). The repetitiveness and prolonged exposure to WPB are thought to result in the target's depletion of coping mechanisms and resources (Leymann, 1996; Nielsen & Einarsen, 2018), further perpetuating feelings of defenselessness.

Despite a general agreement that these three attributes must be present in the definition of WPB, researchers often use and study the concept of WPB interchangeably with other forms of disruptive workplace behaviors. The interchangeable use of these concepts, compounded by the lack of a standardized instrument to measure WPB, and discrepancy regarding the inclusion of intentionality in the WPB definition, has led to conceptual confusion of the phenomenon and a wide range of WPB prevalence data (Einarsen et al., 2009). These issues hinder understanding of the behavior in nursing; the far-reaching implications nurse-reported WPB has on organizational and policy levels; and the development of effective interventions to alleviate the behavior (Petrovic & Scholl, 2018). For the purposes of this dissertation, WPB is conceptually defined as: Any negative behavior, exhibited by an individual or group of either perceived or actual power, that was repeatedly and persistently directed toward another individual, who had difficulty defending him- or herself against the behavior, for a prolonged time frame (i.e., at least six months) (Anusiewicz et al., 2019; Nielsen & Einarsen, 2018).

Measurement of WPB

Due to the outcomes of nurses experiencing WPB, efforts to decrease the behavior is a shared interest among researchers, nursing administrators, and health care organizations. However, and in addition to issues related to defining WPB,

methodological concerns have created barriers for researchers to provide reliable and valid information regarding WPB. The ability to successfully define and measure WPB is fundamental to understanding the phenomenon. Two main methods are primarily used to measure WPB exposure, the self-labelling method and the behavioral experience method, which are both based on self-report and have differing strengths and limitations (Nielsen & Einarsen, 2018). Research indicates that different methods and research designs used to explore WPB impact results and the comparison of findings across studies (Nielsen, 2009). These concerns are compounded by differing cultural norms that exist at varying levels (i.e., professional, institutional, regional, or national) (Jacobson et al., 2014; Lewis, 2006; Salin et al., 2019). Cultural differences may influence how WPB is expressed and how targets perceive and react to the behaviors (Salin et al., 2019). In order to reduce the behavior, researchers should examine the cultural differences and structures that contribute to and potentially sustain WPB (Escartin et al., 2011). Furthermore, because nursing is considered a high-risk profession for WPB which threatens the provision of safe, high quality care (American Nurses Association, 2015), additional research on the use of methodology in this area and population is warranted (Nielsen, 2009).

Conceptual Framework

The conceptual framework that will be used to guide this dissertation is a modification of Donabedian's (1966) structure, process, and outcome framework (see Figure 1). Donabedian's (1966) framework is the most widely used framework in outcomes research and has been consistently used to inform and evaluate efforts to improve quality of care (Gallagher & Rowell, 2003; Swiger, 2017). Donabedian proposed

using a triad of categories, which includes structure, process, and outcome, to evaluate health care quality (Ayanian & Markel, 2016; Donabedian, 1966). "Structure" is defined as the settings, provider qualifications, and administrative systems through which patient care occurs; "process" includes the components of patient care delivered, specifically, what is actually done in giving and receiving care; and "outcome" focuses on patient recovery, restoration of function, and survival (Ayanian & Markel, 2016).

Structure

For the proposed study, Donabedian's (1966) framework has been modified include the concepts of interest. The "structural" components of the proposed study include individual factors (i.e., gender, age group, race, and level of education), employment factors (i.e., unit type, shift type, years worked as a registered nurse [RN], years worked in present hospital, years worked on current unit, worked hours/week, and worked overtime/week), and organizational factors (i.e., region, rurality, and the nursing work environment).

Nursing Work Environment

The nursing work environment, an organizational factor, is the primary structural concept of interest in this dissertation study. The nursing work environment encompasses five domains (i.e., Nurse Participation in Hospital Affairs; Nursing Foundations for Quality Care; Nurse Manager Ability, Leadership, and Support of Nurses; Staffing and Resource Adequacy; and Collegial Nurse – Physician Relations) that are associated with various benefits, such as improved nurse, patient, and organizational level outcomes

(Lake, 2002; Swiger, 2017). The five domains were developed through research aimed at measuring nurse perceptions of the quality of nursing care and organizational characteristics of hospitals (Aiken & Patrician, 2000; Lake, 2002; Swiger, 2017). These domains were empirically tested with exploratory and confirmatory factor analyses (Lake, 2002).

Process

Perhaps the largest modification to Donabedian's (1966) framework to this dissertation is the removal of the "process" category. In place of process is the intermediate outcome, nurse-reported WPB. Although there are several reasons to evaluate WPB as a process (Gamian-Wilk et al., 2017; Nielsen & Einarsen, 2018), the majority of studies examining WPB, including this dissertation study, use cross-sectional research designs or qualitative analysis of the target's previous WPB experiences, which provides "snapshots" of the WPB phenomenon (Nielsen & Einarsen, 2018). Therefore, little is known about how WPB evolves, escalates, and de-escalates over time (Nielsen & Einarsen, 2018). To truly examine WPB as a process, studies must test a priori models with multiple assessment points that can capture the dynamics of WPB over short and long time periods (Nielsen & Einarsen, 2018). Therefore, this study will not explore "process."

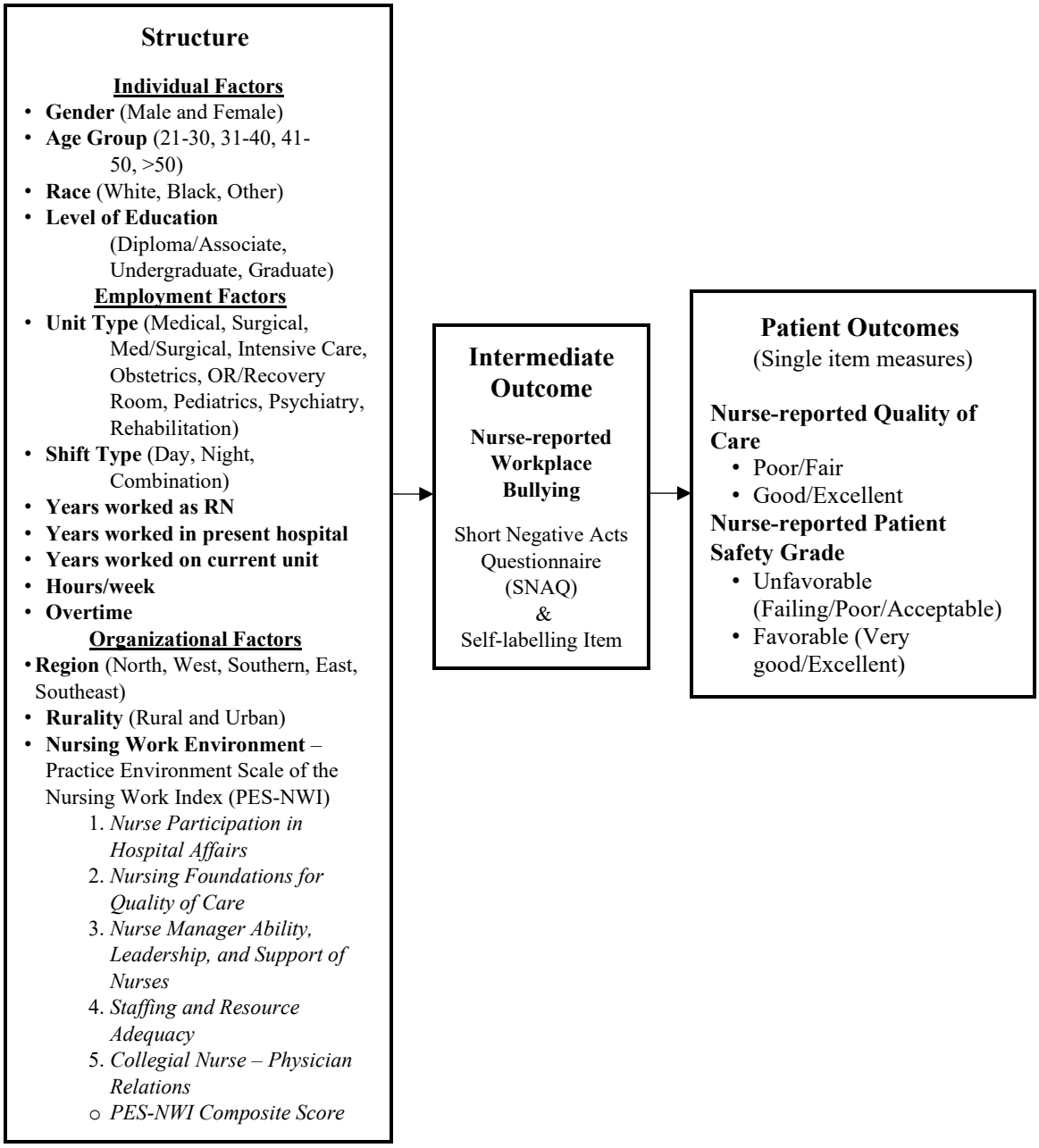
Outcome

The "outcome" category for this dissertation study represents patient outcomes reported by nurses (i.e., quality of care and patient safety). Defined by the Institute of

Medicine, quality of care is “the degree to which health care services for individuals and populations increase the likelihood of desired patient health outcomes and are consistent with current professional knowledge” (AHRQ, 2018b). Patient safety is defined as the avoidance and prevention of accidental or preventable patient injuries or adverse events resulting from the processes of health care delivery (AHRQ, n.d.). Nurses are an essential human resource for health care organizations, ranking highest in direct patient care hours (Stimpfel et al., 2019). As fundamental members of the health care team, nurses participate in care processes and observe subsequent clinical outcomes (Stimpfel et al., 2019). Collectively, nurses have reported levels of quality of care (McHugh & Stimpfel, 2012; Smeds-Alenius et al., 2016) and patient safety (Lawton et al., 2015) that align with objective patient outcomes and nursing sensitive indicators (Stalpers et al., 2016; Stimpfel et al., 2019). Thus, although objective patient outcomes will not be assessed directly in this dissertation study, using nurses as informants of patient care is valuable (McHugh & Stimpfel, 2012; Stimpfel et al., 2019).

Figure 1

Conceptual Framework



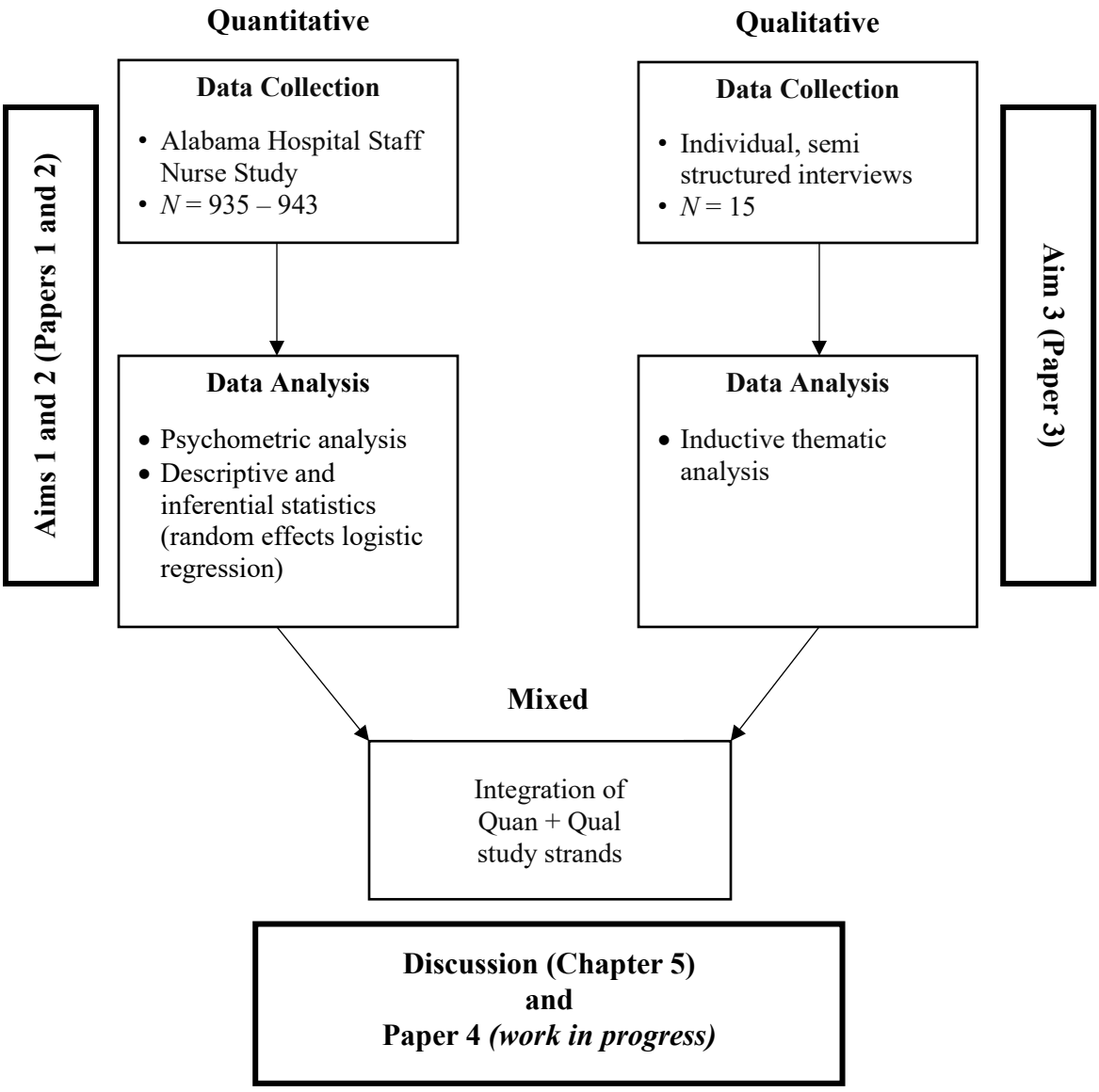
Note. Conceptual framework depicting the associations tested between the nursing work environment (i.e., structure), nurse-reported WPB (i.e., intermediate outcome), and nurse-reported quality of care and nurse-reported patient safety grade (i.e., patient outcomes).

Purpose

The purpose of this dissertation study is to explore the nursing work environment and patient outcomes associated with nurse-reported workplace bullying (i.e., nurse-reported quality of care and patient safety). This dissertation encompasses three papers that report on the quantitative and qualitative strands of a concurrent Quan + Qual mixed methods research design used to address the study purpose (Plano Clark & Ivankova, 2016). A concurrent Quan + Qual mixed methods design is a research design in which quantitative and qualitative data are collected and analyzed independently followed by the integration of the results from the quantitative and qualitative study strands. The purpose of integration in this dissertation study is to compare the quantitative and qualitative results to produce well-validated and substantiated findings through obtaining different but complementary data on the same research topic (i.e., nurse-reported WPB) (Creswell, 2003; Schoonenboom & Johnson, 2017). Paper One discusses the methodological concerns regarding the measurement of WPB; evaluates the psychometric properties of the Short Negative Acts Questionnaire (SNAQ), the instrument used to measure nurse-reported WPB in this dissertation study; and provides preliminary analysis necessary to address the aim of the quantitative study strand (Paper Two). The quantitative and qualitative study strands and results are presented in Papers Two and Three, respectively. The final chapter of this dissertation discusses the integration of the quantitative and qualitative study strand results and the overall conclusions and implications of the findings for future nursing research and stakeholders. An overview of the mixed methods procedures followed in this dissertation study is provided in Figure 2.

Figure 2

Procedural Diagram: Overview of Mixed Methods Research Process



Overview of Three Papers

Paper One – Measuring Workplace Bullying in a U.S. Nursing Population with the Short Negative Acts Questionnaire

The purpose of Paper One is to present the psychometric analysis results of the SNAQ and provide the preliminary work needed for Paper Two. Paper One addresses Aim 1, which is to explore the psychometric properties of the SNAQ and its ability to identify WPB status in a U.S. sub sample of inpatient staff nurses who participated in the Alabama Hospital Staff Nurse Study (PI: Patrician) (Anusiewicz et al., 2020). Research questions to address Aim 1 include:

Research Question 1a: What is the reliability and validity of the SNAQ?

Research Question 1b: How is bullying status classified using a latent class analysis of the SNAQ?

Research Question 1c: Using outcomes related to or potentially related to nurse-reported WPB, what is the comparison of WPB classification using the SNAQ and self-labelling item?

This analysis is important due to the new development of the SNAQ and cultural considerations related to WPB (Notelaers et al., 2019). To the authors' knowledge, the SNAQ has not yet been used to measure WPB in a U.S. nursing sample. Following recommendations from the developers of the SNAQ, a latent class analysis (LCA) was used to classify bullying status of nurses (Reknes et al., 2017). These results provide the information needed to address the aims of the quantitative study strand (Paper Two). In addition to providing an overview of the methodological concerns for measuring WPB in

research, Paper One concludes with recommendations for use and limitations of the SNAQ, and future research suggestions.

Paper Two – Associations Among the Nursing Work Environment, Nurse-reported Workplace Bullying, and Patient Outcomes

The purpose of Paper Two is to present the results of the quantitative strand of this dissertation study. The quantitative strand addresses Aim 2, which is to explore the association between the nursing work environment, nurse-reported WPB, and patient outcomes. To address Aim 2, research questions include:

Research Question 2a: What is the association between the nursing work environment and nurse-reported WPB?

Research Question 2b: What is the association between nurse-reported WPB and nurse-reported quality of care?

Research Question 2c: What is the association between nurse-reported WPB and nurse-reported patient safety grade?

Cross-sectional analysis of data from the Alabama Hospital Staff Nurse Study (PI: Patrician) (Anusiewicz et al., 2020) was used to address Aim 2. The Alabama Hospital Staff Nurse Study was a statewide study utilizing methods similar to those outlined by Aiken and colleagues (2008). Data were first analyzed to determine the association between the nursing work environment and the presence of nurse-reported WPB. Next, the data were analyzed to determine the association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and nurse-reported patient safety

grade). Random effects logistic regressions were used to determine associations controlling for individual, employment, and organizational factors (Li et al., 2011).

Paper Three – How Does Workplace Bullying Influence Nurses' Abilities to Provide Patient Care? A Nurse Perspective

Paper Three reports on the results of the qualitative strand of this dissertation study. The qualitative strand addresses Aim 3, which is to explore how WPB influences nurses' abilities to provide patient care. Research questions to address Aim 3 include:

Research Question 3a: How do nurses perceive the nursing work environment to influence their experiences of WPB?

Research Question 3b: How do nurses perceive WPB influences their mental, physical, and emotional being?

Research Question 3c: How do nurses perceive experiencing WPB influences their ability to provide patient care?

A qualitative approach was used to conduct this study for three reasons. First, although there is a logical link that exists between nurse-reported WPB and patient outcomes, there is minimal and inconclusive empirical evidence establishing this link (Houck & Colbert, 2017). Second, one-item, nurse-reported measures were used in the Alabama Hospital Staff Nurse Study to assess complex concepts (i.e., quality of care and patient safety). The richness of qualitative data can therefore potentially provide further explanations and understanding of the influence of experiencing WPB on the quality of nursing care and overall patient safety. Third, nurses responding to the Alabama Hospital Staff Nurse survey were not asked to rate the quality of nursing care and overall patient

safety in the context of experiencing WPB. This may affect the quantitative results pertaining to the association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and nurse-reported patient safety). Using purposive sampling, the qualitative study strand includes 15 inpatient staff nurses who have experienced WPB while working in a large academic medical center located in the southern region of the U.S. Individual, semi-structured interviews were conducted in-person, and inductive thematic analysis was used to analyze verbatim interview transcripts in NVivo 12 software.

Definitions of Key Terms

In this section, key variables utilized throughout this dissertation are defined.

"*Mixed methods research* is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the data collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process. As a method, it focuses on collection, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone" (Creswell & Plano Clark, 2007, p. 5).

"The *concurrent Quan + Qual design* is a mixed methods design in which researchers implement quantitative and qualitative strands concurrently or independent of each other with the purpose of comparing or merging quantitative results to produce more complete and validated conclusions" (Plano Clark & Ivankova, 2016, p. 120).

"*Triangulation* is an argument for using mixed methods to obtain more valid conclusions about a phenomenon by directly comparing results obtained from quantitative methods to those obtained from qualitative methods for convergence or divergence" (Plano Clark & Ivankova, 2016, p. 81).

Structural Variable

The *nursing work environment* is defined as the "factors that enhance or attenuate a nurse's ability to practice nursing skillfully and deliver high quality care" (Swiger et al.,

2017, p. 76). The domains of the nursing work environment are measured using five subscales.

The *Practice Environment Scale of the Nursing Work Index (PES-NWI)* is an empirically developed instrument used to measure the nursing work environment (Lake, 2002). The PES-NWI is a self-reported instrument that instructs nurse respondents to indicate, using a 4-point Likert scale, their agreement that each item listed is present in their current work environment. The responses were coded as: *strongly disagree* = 1, *somewhat disagree* = 2, *somewhat agree* = 3, or *strongly agree* = 4. The five subscales include:

1. Nursing Participation in Hospital Affairs (Subscale #1; 9 items) addresses concerns the nurses' involvement in hospital and nursing department affairs (i.e., internal governance, policy decisions, and committees); opportunities for advancement; the presence of open communication with a responsive nursing administration; and the acknowledgment of a powerful, visible, and accessible nurse executive.

2. Foundations for Quality of Care (Subscale #2; 10 items) emphasizes the nursing foundations for a high standard of patient care: 1) a pervasive nursing philosophy, 2) a nursing (rather than a medical) model of care, and 3) nurses' clinical competence.

3. Nurse Manager Ability, Leadership, and Support of Nurses (Subscale #3; 5 items) focuses on the critical role of the nurse manager (i.e., their ability to lead, manage, and support nursing staff).

4. Staffing and Resource Adequacy (Subscale #4; 4 items) measures the presence of adequate staffing and support resources to provide quality patient care.

5. Collegial Nurse – Physician Relations (Subscale #5; 3 items) focuses on the relationships between nurses and physicians, representing the nurses' desires to have a positive working relationship with physicians.

The *composite score* is the mathematically derived mean of the five subscales. Subscale scores are averaged, and then the composite score is generated by averaging the subscale scores. This prevents the weighting of subscales that contain more items than others (Lake, 2002).

Intermediate Outcome Variable

Workplace bullying (WPB) involves any negative behavior, exhibited by an individual or group of either perceived or actual power, that was repeatedly and persistently directed toward another individual, who had difficulty defending him- or herself against the behavior, for a prolonged time frame (i.e., at least six months) (Anusiewicz et al., 2019; Nielsen & Einarsen, 2018).

The Short Negative Acts Questionnaire (SNAQ) is a 9-item behavioral questionnaire developed by the Bergen Bullying Research Group to determine the perception of work-related, person-related, and physically intimidating bullying behaviors. Nurses were asked to report how frequently they have experienced the behaviors using a 5-point Likert scale. The responses were coded as: *never* = 1, *now and then* = 2, *monthly* = 3, *weekly* = 4, and *daily* = 5. A latent class analysis of the SNAQ was used to classify the bullying status of nurses.

Person-related bullying includes behaviors associated with an individual's personal self (i.e., insulting remarks, excessive teasing, gossip and rumors, social isolation and exclusion).

Work-related bullying includes behaviors associated with an individual's work (i.e., being exposed to unreasonable deadlines, unmanageable workloads, or other types of behaviors that make the work situation difficult for the target).

Physically intimidating bullying consists of overt physical violence or threats of violence.

The s*elf-labelling item* is a single-item measure that provides the survey respondents a definition of WPB prior to answering how frequently they have experienced the behaviors using the same 5-point Likert scale as the SNAQ. The responses were coded as: *never* = 1, *now and then* = 2, *monthly* = 3, *weekly* = 4, and *daily* = 5. The self-labelling item was only used to address Aim 1 (Paper One).

Patient Outcome Variables

Quality of care is defined by the Institute of Medicine as "the degree to which health care services for individuals and populations increase the likelihood of desired patient health outcomes and are consistent with current professional knowledge" (AHRQ, 2018b). In this dissertation study, quality of care was assessed using a single-item measure. Nurses were asked to answer the question: "In general, how would you describe the quality of nursing care on your unit?" The responses included: *poor, fair, good,* and *excellent*. For analyses, the responses were dichotomized into either *fair/poor* quality of care = 0 or *excellent/good* quality of care = 1.

Patient safety is defined as the avoidance and prevention of accidental or preventable patient injuries or adverse events resulting from the processes of health care delivery (AHRQ, n.d.). In this dissertation study, patient safety was assessed using a single-item measure included in the AHRQ's hospital survey on patient safety culture (i.e., patient safety grade) (Sorra et al., 2016). Nurses were asked to respond to the statement: "Please give your work area/unit in this hospital an overall grade on patient safety." The self-report responses included: *excellent*, *very good*, *acceptable*, *poor*, or *failing*. For analysis, the responses were dichotomized into either an *unfavorable* patient safety grade (acceptable, poor, and failing) = 0 or a *favorable* patient safety grade (excellent and very good) = 1.

Summary

The purpose of this dissertation study was to explore the nursing work environment and patient outcomes (i.e., nurse-reported quality of care and patient safety) associated with nurse-reported WPB. This first chapter has introduced the research problem, background and significance, conceptual framework, and an overview of the three papers, including the respective research aims and questions that will guide and inform this three-paper dissertation. The final chapter of this dissertation will discuss the integrated results of the quantitative and qualitative study strands and provide overall conclusions and implications of the findings for future nursing research and stakeholders.

MEASURING WORKPLACE BULLYING IN A U.S. NURSING POPULATION WITH THE SHORT NEGATIVE ACTS QUESTIONNAIRE

by

COLLEEN V. ANUSIEWICZ, PENG LI, PATRICIA A. PATRICIAN

Submitted to *Journal of Nursing Measurement*

Format adapted for dissertation

PAPER ONE

MEASURING WORKPLACE BULLYING IN U.S. NURSING POPULATION WITH THE SHORT NEGATIVE ACTS QUESTIONNAIRE

ABSTRACT

Background: Decreasing nurse-reported workplace bullying (WPB) is an interest among researchers, nursing leaders, and health care organizations; however, varying conceptual definitions and measurement approaches of WPB have created barriers for researchers to provide reliable and consistent information regarding WPB.

Objective: This paper aims to 1) evaluate the reliability and validity of the Short Negative Acts Questionnaire (SNAQ) in a United States (U.S.) nursing sample, 2) illustrate how to classify bullying status using the SNAQ and self-labelling item, and 3) compare WPB classification using the SNAQ and the self-labelling item.

Methods: The internal consistency reliability and construct validity of the SNAQ in 943 nurses was evaluated using Cronbach's alpha and confirmatory factor analysis (CFA). An exploratory factor analysis (EFA) was conducted to explore the underlying structure of the SNAQ. The WPB status was identified using latent class analysis (LCA) of the SNAQ and by the self-labelling item, separately. The agreement of WPB between the two methods was evaluated with Cohen's kappa. Using both the SNAQ and the self-labelling item, the association between WPB status and variables related/potentially related to nurse-reported WPB was evaluated with random effects multiple logistic regression.

Results: The SNAQ had a good internal consistency reliability (α = 0.89). The CFA suggested that the construct validity of the SNAQ was acceptable even though the EFA indicated differences from the proposed dimensions. Among 935 nurses who responded to both the SNAQ and self-labelling item, 372 (39.8%) nurses were classified as "bullied" by the LCA of the SNAQ; however, only 70 (7.5%) nurses were classified as "bullied" by the self-labelling item. Despite the weak agreement, 67 (96.0%) of the 70 nurses classified as "bullied" by the self-labelling item were also classified as "bullied" by the LCA. Further, nurse-reported WPB using the LCA of the SNAQ was significantly associated with job satisfaction, intent to leave, nurse-reported quality of care, and nurse-reported patient safety grade (all $p < 0.001$), indicating high criterion validity of the SNAQ.

Conclusion: The SNAQ is a reliable, valid, and convenient instrument to explore WPB in staff nurses working in hospitals throughout Alabama. We recommend the utilization and the LCA of the SNAQ for future WPB studies in U.S. nursing populations.

Key words: SNAQ, validity, reliability, nurse, bullying

INTRODUCTION

Nurse-reported workplace bullying (WPB) continues to be an international health care concern and workplace problem. Nursing literature is replete with studies examining various forms of bullying behaviors (i.e., incivility, horizontal violence, harassment, and disruptive workplace behaviors) and how experiencing such behaviors negatively affects nurse, patient, and health care organizational outcomes (Castronovo et al., 2016; Houck & Colbert, 2017; Vessey et al., 2009). Due to the negative consequences associated with nurses experiencing WPB (i.e., decreased job satisfaction, increased intent to leave, and poor patient outcomes) (Houck & Colbert, 2017; Laschinger, 2014; Vessey et al., 2010), researchers, nursing leaders, and organizations, including the American Nurses Association and The Joint Commission (TJC), have become increasingly interested in preventing nurse-reported WPB internationally (American Nurses Association, 2015; TJC, 2016). However, with the growing interest and cultural differences associated with WPB (Jacobsen et al., 2014; Johnson, 2011), there is now a great amount of inconsistency in defining, measuring, and determining how to identify targets and non-targets of WPB. This has led to a wide range of frequency estimates reported in the literature, conceptual and methodological confusion, and difficulty in developing effective strategies to decrease bullying behaviors within health care organizations. To measure WPB, numerous approaches and instruments of varying complexity have been devised; however, issues remain with instrumentation in the research on WPB, including the development of psychometrically sound instruments (Keashly & Harvey, 2005;

Nielsen et al., 2010). To avoid underestimation or overestimation of the issue within nursing, develop and implement effective strategies to decrease nurse-reported WPB, and further inform policy, it is crucial to resolve issues associated with measuring nurse-reported WPB in research.

Definition of WPB

Workplace bullying involves any negative behavior, exhibited by an individual or group of either perceived or actual power, that was repeatedly and persistently directed toward another individual, who had difficulty defending him- or herself against the behavior, for a prolonged time frame (i.e., at least six months) (Anusiewicz et al., 2019; Nielsen & Einarsen, 2018). Workplace bullying is not a single event and does not involve inevitable interactions or interpersonal conflicts that may occur when clear expectations and goals are set, progress is monitored, or constructive feedback is provided (Nielsen & Einarsen, 2018). Although commonly included in WPB definitions, intentionality on behalf of the perpetrator is not a defining attribute of WPB because intent is both difficult to establish and measure (Nielsen et al., 2016; Nielsen & Einarsen, 2018). With its many attributes, WPB is considered a complex phenomenon, complicating its measurement (Cowie et al., 2002; Einarsen et al., 2010).

Measuring WPB

Two main methods are used to measure WPB exposure: the behavioral experience method and the self-labelling method, which are both based on self-report (Nielsen & Einarsen, 2018). Researchers who employ the behavioral experience method provide

respondents with an inventory of negative behaviors and ask them to report how frequently they have been exposed to such behaviors over a given time frame (e.g., daily, weekly, monthly, for at least six months, one year) (Nielsen, 2009; Nielsen et al., 2010). In contrast, researchers using the self-labelling method will typically provide respondents with a definition of WPB and then ask them to respond to a single-item question concerning if and/or how frequently they have experienced WPB over a given time frame (Nielsen et al., 2010). Debate still exists regarding which time frame should be used to measure WPB exposure. Several researchers suggest at least six months, which is based on posttraumatic stress literature (Leymann, 1996; Nielsen, 2009). However, others advocate that experiencing WPB should occur for at least one year (Salin, 2001). Asking respondents to recall whether they have experienced WPB, or the behaviors listed in an inventory over any given time frame limits the reliability of findings for several reasons. First, as time passes, respondents are more likely to experience memory disintegration (Schat et al., 2006). Second, the ability to compare findings from studies using differing time frames can result in differences in the prevalence of WPB and outcomes (Nielsen, 2009). This potentially interferes with understanding the severity and implications of WPB. In a meta-analysis (Nielsen, 2009) of 92 estimates of WPB prevalence rates, most applied a time frame of less than one year.

Both methods have limitations; however, it is reported that the behavioral experience method is more advantageous than the self-labelling method for three reasons (Conway et al., 2018). First, the negative behaviors listed in the behavioral inventories are not explicitly referred to as “bullying” so that it may reduce under-reporting issues that frequently occur when using the self-labelling method, which requires respondents to

label themselves as targets of WPB (Conway et al., 2018). Second, when presented with a list of negative behaviors, respondents may be reminded of potential WPB that they would not have recalled if being administered the self-labelling method, which does not include specific negative behaviors (Conway et al., 2018). Third, unlike the self-labelling method, the behavioral experience method provides information about the nature of the negative behaviors listed (e.g., behaviors that are the most/least common), which can be useful when developing prevention strategies (Conway et al., 2018).

Although the behavioral experience method offers several advantages, a few limitations exist. Appropriately capturing a target's perception of being bullied is important in determining their response to the experience and consequent health effects (Conway et al., 2018), but some negative behaviors listed in inventories may not be perceived as WPB by respondents (Nielson et al., 2010). Another limitation of the behavioral experience method is its inability to determine if targets have experienced difficulty defending themselves against the negative behaviors listed (Nielsen et al., 2010), which is a primary attribute of WPB. Based on the strengths and limitations of both, it is recommended that the two methods be integrated in surveys investigating WPB (Nielsen et al., 2010).

The Negative Acts Questionnaire-Revised (NAQ-R), developed by the Bergen Bullying Research Group, is the most commonly used behavioral instrument to measure WPB internationally (Einarsen et al., 2009). The NAQ-R is a 22-item inventory used to determine the perception of three WPB dimensions: work-related, person-related, and physically intimidating bullying. Although the NAQ-R is a well-validated and reliable instrument, it is relatively long, creating difficulty for researchers to integrate the

instrument via online surveys (Notelaers et al., 2019). Several researchers have created shorter versions of the NAQ-R; however, researchers have not provided a rationale for item selection, or have based item selection on statistical criteria alone (Notelaers et al., 2019). Thus, the Bergen Bullying Research Group recognized a need for a shortened version of the NAQ-R and developed the Short Negative Acts Questionnaire (SNAQ).

Short Negative Acts Questionnaire

The SNAQ (Table 1) is a 9-item behavioral inventory derived from the NAQ-R and is used to determine the perception of work-related, person-related, and physically intimidating bullying behaviors in the workplace. However, the psychometric properties of the SNAQ have not been well explored in different populations. Recently, the dimensionality and criterion validity of the SNAQ were explored in two European cohorts (Conway et al., 2018; Notelaers et al., 2019). In nursing, only the internal consistency reliability of the SNAQ has been evaluated in a Norwegian nursing sample (Cohen's $\alpha = .75$) (Reknes et al., 2017). Hence, it is warranted to explore the psychometric properties of the SNAQ, including the internal consistency reliability and validity in a U.S. nursing sample.

Table 1

Workplace Bullying Self-labelling Item and the Short Negative Acts Questionnaire (SNAQ)

Short Negative Acts Questionnaire (SNAQ)			
Dimension & Item #		**Behavior**	**How Often**
Work	1	Someone withholding information which affects your performance	1 2 3 4 5
Person	2	Spreading of gossip and rumors about you	1 2 3 4 5
Person	3	Being ignored or excluded by people at work	1 2 3 4 5
Person	4	Having insulting or offensive remarks made about you (i.e., habits, background, attitude or private life)	1 2 3 4 5
Physical	5	Being shouted at or being the target of spontaneous anger (or rage)	1 2 3 4 5
Person	6	Repeated reminders of your errors or mistakes	1 2 3 4 5
Person	7	Facing a hostile reaction when you approach others	1 2 3 4 5
Work	8	Persistent criticism of your work and effort	1 2 3 4 5
Person	9	Being the subject of unwanted practical jokes	1 2 3 4 5
Workplace Bullying Self-Labelling Item			
Definition: We define bullying as a situation where one or several individuals persistently, over a period of time, perceives themselves to be on the receiving end of negative actions from one or several person, in a situation where they have difficulty defending him or herself against these actions. It is not bullying when two equally strong opponents are in conflict with each other. A one-time incident of being the target of negative actions is not referred to as bullying.			
How often have you been bullied at work in the past six months?			1 2 3 4 5

Note. Never = 1, Now and then = 2, Monthly = 3, Weekly = 4, Daily = 5

WPB in Nursing

Nurses have been consistently identified as a high-risk group for WPB (American Nurses Association, 2015; Waschgler et al., 2013). The high susceptibility of nurses to WPB has been attributed to the complexities associated with providing patient care within a demanding and rapidly evolving health care landscape (Blackman et al., 2015).

Many characteristics of work environments in health care, such as use of new technologies, often limited human and material resources, time pressure, life-threatening situations, high patient acuity, and documentation burden, have been identified as strong risk factors for WPB (Blackman et al., 2015; Salin & Hoel, 2011).

Over the past few decades, WPB in nursing has received growing attention (Hutchinson et al., 2006). Yet WPB continues to persist within the nursing profession, despite a substantial and growing body of evidence reflecting the negative effects of WPB on nurses, patients, and health care organizations; published position statements and alerts; and the initiation of workplace violence policies and protocols (Crawford et al., 2019). In the context of providing safe, high-quality patient care and prioritizing clinician well-being, it is crucial to identify, use, and appropriately analyze well-validated and reliable instruments measuring nurse-reported WPB.

Identifying Targets and Non-targets of WPB

In addition to the difficulty of defining and identifying a psychometrically sound instrument to measure WPB, researchers face challenges of classifying targets and non-targets of WPB when using a behavioral inventory. The literature identifies three primary methods for determining targets and non-targets of WPB when using behavioral inventories: the operational classification method (OCM) (Leymann, 1990), identification by non-arbitrary cutoff points (Conway et al., 2018; Notelaers & Einarsen, 2013), and the latent class analysis (LCA) approach (Notelaers et al., 2006; Reknes et al., 2017). The OCM applies a cutoff point corresponding to a minimum number of frequent negative behaviors reported by respondents to determine WPB status, which has been criticized

for the arbitrary selection of the cutoff points by researchers. Non-arbitrary cutoff point can be derived from receiver operating characteristics curve analyses using a "gold reference standard." However, a "gold reference standard" may not exist, be easy to use, or vary among differing populations. Due to criticisms of the OCM (Notelaers & Einarsen, 2013) and limitations of non-arbitrary cutoffs points (Conway et al., 2018), the LCA approach is arguably the most suitable statistical technique to identify WPB targets (Reknes et al., 2017). An LCA systematically classifies respondents into mutually exclusive groups (latent classes) with respect to a given trait (i.e., exposure to WPB) that is not directly observed (Reknes et al., 2017). The advantage of the LCA approach includes the identification of the number of latent classes and the subjects based on data and best model fit, thus it is objective; and the LCA is not dependent upon distributional assumptions of data (Reknes et al., 2017).

Because WPB is a prevalent issue experienced by nurses working throughout the U.S., and psychometrically sound instruments are warranted to measure WPB exposure, this study seeks to 1) evaluate the reliability and construct validity of the SNAQ in a sample of U.S. nurses working in hospitals located throughout Alabama, 2) determine targets and non-targets of WPB in this sample using an LCA of the SNAQ and the self-labelling item, and 3) evaluate the criterion validity of the SNAQ by comparing results of the LCA using the SNAQ and results of self-labelling item, and then examining the association between WPB status identified by the LCA of the SNAQ and variables empirically associated with nurse-reported WPB (i.e., job satisfaction, intent to leave, nurse-reported quality of care, and nurse-reported patient safety). We hypothesize that 1) nurse-reported WPB will have a negative association with job satisfaction, nurse-reported

quality of care, and nurse-reported patient safety grade, and 2) nurse-reported WPB will have a positive association with a nurse's intent to leave within the next 6 to 12 months.

METHODS

Sample

This study is part of the Alabama Hospital Staff Nurse Study, which surveyed currently employed registered nurses working in acute care hospitals located throughout Alabama. The recruitment and data collection methods used are reported elsewhere (Anusiewicz et al., 2020). The goal of the Alabama Hospital Staff Nurse Study was to explore the relationships between nursing sensitive indicators, patient experience, and hospital acquired infections. Data collection occurred between July 2018 and mid-January 2019. A total of 1,354 nurses completed the survey, among which 943 and 935 nurses responded to the SNAQ and the self-labelling item, respectively. Therefore, our sample included 943 nurses who completed the SNAQ, while analysis involving the self-labelling item included only 935 nurses. The Alabama Hospital Staff Nurse Study was approved by the University of Alabama at Birmingham Institutional Review Board.

Measures

In addition to demographic questions, single-item measures were used to assess nurse job satisfaction, intent to leave, nurse-reported quality of care, and nurse-reported patient safety grade in the Alabama Hospital Staff Nurse Study survey. Job satisfaction was measured using a 4-point Likert scale ranging from *very dissatisfied* to *very satisfied.* The responses were dichotomized into dissatisfied (*moderately dissatisfied* and *very*

dissatisfied) and satisfied (*moderately satisfied* and *very satisfied*). Intent to leave was assessed by asking nurses to report whether they planned to leave their present nursing position *within 6 months*, *within 12 months*, or *no plans within the next year*. The responses were dichotomized into yes (*within 6 to 12 months*) and no (*no plans within the next year*). To assess nurse-reported quality of care, nurses were asked to respond to the following question: "In general, how would you describe the quality of nursing care on your unit?" The self-report responses included: *excellent, good, fair,* and *poor*. In analyses, the responses were dichotomized into either *good/excellent* or *poor/fair* quality of care. Nurse-reported patient safety grade was assessed using the following statement: "Please give your work area/unit in this hospital an overall grade on patient safety." This single-item measure is from the Agency for Healthcare Research and Quality (AHRQ) hospital survey on patient safety culture (Sorra et al., 2016). The self-report responses included: *excellent, very good, acceptable, poor,* or *failing*. In analysis, the responses were dichotomized into either *favorable* patient safety grade (*very good* and *excellent*) or *unfavorable* patient safety grade (*failing, poor,* and *acceptable*).

To assess nurse-reported WPB, the nurses were asked to report the frequency of experiencing each of the nine behaviors listed in the SNAQ using a 5-point Likert scale (*never* = 1, *now and then* = 2, *monthly* = 3, *weekly* = 4, *daily* = 5). In the survey, the self-labelling item followed the SNAQ. Nurses were asked to read the definition of WPB and report the frequency of experiencing WPB, as shown in Table 1.

Data Analysis

All statistical analyses were conducted using R version 3.4.3. The characteristics of the sample were summarized with descriptive statistics: median (range) for continuous variables and frequency (proportion) for categorical variables. The internal consistency reliability of the SNAQ was evaluated using Cronbach's alpha. Because the SNAQ contained three subscales, representing the three dimensions of WPB—work-related (items # 1 and 8), person-related (items # 2, 3, 4, 6, 7, and 9), and physically intimidating (item # 5)—the Cronbach's alphas were calculated for all nine SNAQ items and for the first two dimensions (i.e., work-related and person-related). The construct validity of the SNAQ in our sample was evaluated using confirmatory factor analysis (CFA) with three factors (representing the three dimensions of WPB in the SNAQ), and the model fit was determined by the standardized root mean squared residual (SRMR), the root mean-square error of approximation (RMSEA), and the comparative fit index (CFI). Model fit with SRMR < 0.08, CFI > 0.9, and RMSEA < 0.1 indicates that the data are consistent with the three-factor CFA model. Further, an exploratory factor analysis (EFA) was conducted to explore the underlying structure of SNAQ items in our sample. The WPB targets were first classified by the LCA of the SNAQ responses, using R package "poLCA." To identify the optimal number of latent classes (i.e., number of different WPB statuses), eight LCA models (with two to nine classes) were specified and the number of latent classes was determined by the best model fit (i.e., the model with the lowest Bayesian information criterion [BIC]) (Notelaers et al., 2019). Given two models with very similar BIC values, the model with the smaller number of classes was chosen for parsimony reasons.

Based on discrepancies in the literature regarding the frequency of experiencing unwanted behaviors that constitute bullying, the WPB targets were then classified using the self-labelling item in two different ways: 1) labelling respondents as "bullied" if the nurse-reported an exposure frequency of either *monthly*, *weekly*, or *daily*; and 2) labelling respondents as "bullied" if the nurse reported an exposure frequency of either *weekly* or *daily.* The agreement of WPB status between the SNAQ and self-labelling item was evaluated using Cohen's kappa, which was also used to evaluate the criterion validity of the SNAQ. The associations between nurse-reported WPB (using the LCA groupings for the SNAQ and the *weekly* or *daily* frequency coding method for the self-labelling item, which aligned with the WPB definition used in this study) and outcomes related or potentially related to WPB (i.e., job satisfaction, intent to leave, nurse-reported quality of care, nurse-reported patient safety grade) were explored through random effects logistic regression modelling with hospital as the random effect to account for the clustering (i.e., nurses were clustered within hospitals). The odds ratios (*OR*) and 95% confidence intervals (95% CI) were used to determine strength of the associations.

RESULTS

Description of Sample

The descriptive statistics of our sample are provided in Table 2. The majority (68.0%) of nurses were satisfied with their present job; however, 37.9% reported a desire to leave within the next 6 to 12 months. Nurses primarily reported good/excellent quality of care (84.1%) and a favorable patient safety grade (69.5%).

Table 2

Descriptive Statistics of Study Sample (N = 943)

Factors	Median or N	Range or %
Age group		
21-30	336	36.0
31-40	190	20.3
41-50	154	16.5
>50	254	27.2
Age	37	21-73
Gender		
Male	96	10.4
Female	826	89.6
Race		
Black or African American	104	11.5
White	739	82.0
American Indian or Alaska Native, Asian/Pacific Islander, Other	58	6.4
Hispanic		
Yes	22	2.5
No	851	97.5
Education level		
Diploma/associate degree	304	32.8
Undergraduate	521	56.1
Graduate (master, DNP, PhD)	103	11.1
Years as RN	8	0-50
Years in hospital	4	0-42
Years in unit	3	0-60
Region		
North	74	7.8
West	25	2.7
Southern	80	8.5
East	607	64.4
Southeast	157	16.6
Rurality		
Rural	50	5.3
Urban	893	94.7
Hospital size		
Small (<100 beds)	30	3.2
Medium (101-250 beds)	129	13.7
Large (>250 beds)	784	83.1

Work type		
Part-time	151	16.0
Full-time	791	84.0
Work status		
Temporary	22	2.3
Permanent	920	97.7
Unit type		
Medical	83	8.8
Surgical	71	7.6
Med/surgical	258	27.5
Intensive care	310	33.0
Obstetrics	91	9.7
OR/recovery room	47	5.0
Pediatrics	31	3.3
Psychiatry	30	3.2
Rehabilitation	17	1.8
Number of patients on unit	21	1-50
Number of patients assigned	4	0-20
Number of RNs	6	1-45
Number of LPNs	0	0-10
Number of UAPs	2	0-7
Shift type		
Day	571	60.7
Evening/night	321	34.1
Combination (day/night)	49	5.2
Shift length		
8 hours	74	7.8
12 hours	831	88.1
Other	38	4.0
Hours/week	36	0-60
Overtime	2	0-55
Job satisfaction		
Not satisfied	301	32.0
Satisfied	641	68.0
Intent to leave		
No plans within the next year	586	62.1
Yes, within 6 to 12 months	357	37.9
Nurse-reported quality of care		
Fair/poor	150	15.9
Good/excellent	793	84.1
Nurse-reported patient safety grade		
Unfavorable	288	30.5
Favorable	655	69.5

Reliability of SNAQ in a U.S. Nursing Population

The Cronbach's alpha for the nine SNAQ items was 0.89, indicating good internal consistency reliability (Taber, 2018). Results for the individual subscales showed poor reliability for work-related SNAQ items ($\alpha = 0.54$) but good reliability for person-related SNAQ items ($\alpha = 0.85$).

Validity of SNAQ

Construct Validity

To evaluate the construct validity of the SNAQ in our sample (i.e., whether the proposed underlying dimensions of the SNAQ were consistent with our data), we conducted a CFA using a three-factor model representing the work-related, person-related, and physically intimidating bullying dimensions. Three model fit indices obtained from the three-factor model only indicated a marginal fit, with SRMR of 0.065, RMSEA of 0.163, and CFI of 0.845. Only the SRMR indicated a good fit (< 0.08), while RMSEA (>0.1) and CFI (<0.9) did not. To further explore the underlying structure of the SNAQ items in our sample, we then conducted an EFA. The results of the EFA with varimax rotation also suggested three factors in our sample, representing work-related, person-related, and physically intimidating bullying dimensions (Table 3). However, in this sample, SNAQ item #1 (i.e., *Someone withholding information which affects your performance*) loaded higher on the person-related factor than the work-related factor, and SNAQ item #6 (i.e., *Repeated reminders of your errors or mistakes*) loader higher on the work-related factor than the person-related factor. In addition, SNAQ item #7 (i.e.,

Facing a hostile reaction when you approach others) was considered more of a physically intimidating behavior than person-related.

With the new factors/dimensions from the EFA results, the CFA suggested a good model fit with SRMR of 0.040, RMSEA of 0.074, and CFI of 0.970. The good/acceptable internal consistency reliabilities were also observed in the three dimensions with Cronbach's alphas of 0.84 for the work-related SNAQ items, 0.82 for personal-related SNAQ items, and 0.77 for physically intimidating SNAQ items.

Table 3

SNAQ Factor Loadings Based on EFA

		Loadings		
Item #	Behavior	**Factor 1** Person	**Factor 2** Work	**Factor 3** Physically intimidating
1	Someone withholding information which affects your performance	**0.396**	0.208	0.341
2	Spreading of gossip and rumors about you	**0.766**	0.256	0.212
3	Being ignored or excluded by people at work	**0.688**	0.153	0.270
4	Having insulting or offensive remarks made about you (i.e., habits, background, attitude, or private life)	**0.770**	0.275	0.219
5	Being shouted at or being the target of spontaneous anger (or rage)	0.236	0.275	**0.701**
6	Repeated reminders of your errors or mistakes	0.277	**0.633**	0.346
7	Facing a hostile reaction when you approach others	0.348	0.338	**0.644**
8	Persistent criticism of your work and effort	0.281	**0.861**	0.287
9	Being the subject of unwanted practical jokes	**0.414**	0.322	0.252

Criterion Validity

The LCA suggested that the models with two, three, or four latent classes yielded similar model fitting. The two latent class model was chosen for the reason of parsimony in this analysis. The nurses in one latent class rarely reported *monthly*, *weekly*, or *daily* bullying in any of the nine SNAQ items and were therefore classified as "not bullied," while the nurses in the other latent class more frequently reported *monthly*, *weekly*, or *daily* in one or more of the nine SNAQ items and were therefore classified as "bullied." Using the LCA approach to analyze the SNAQ, 372 of 935 (39.8%) nurses reported experiencing WPB, whereas only 70 of 935 (7.5%) or 34 of 935 (3.6%) nurses reported experiencing WPB using the self-labelling item by the two different coding methods, respectively (Table 4). Almost all nurses who self-labelled as being bullied were also classified as being bullied using the SNAQ by LCA, despite the very weak agreement between the two methods (Cohen's $\kappa = 0.20$ [0.16, 0.25]).

Table 4

Classification of WPB Status by SNAQ and Self-labelling Item

		SNAQ		
		Not bullied	Bullied	Total
Self-labelling*	Not bullied	563	338	901
	Bullied	0	34	34
	Total	563	372	935
Self-labelling**	Not bullied	560	305	865
	Bullied	3	67	70
	Total	563	372	935

Note. **Monthly*, *Now and then*, and *Never* = not bullied; *Daily* and *Weekly* = bullied

***Now and then* and *Never* = not bullied; *Daily*, *Weekly*, and *Monthly* = bullied

To further explore the criterion validity of the SNAQ, we analyzed the associations between nurse-reported WPB, as measured by the SNAQ or self-labelling item, and outcomes related or potentially related to nurse-reported WPB (Table 5). Associations between nurse-reported WPB and each outcome (i.e., nurse job satisfaction, intent to leave, nurse-reported quality of care, and nurse-reported patient safety grade) were statistically significant using the SNAQ ($p < 0.0001$). For example, the odds of intent to leave for nurses experiencing WPB is 2.5 times the odds for nurses not experiencing WPB in the SNAQ analysis. Nurses experiencing WPB were less likely to report good/excellent quality of care (*OR* = 0.32 [0.22, 0.47], $p < 0.0001$) or a favorable patient safety grade (*OR* = 0.38 [0.28, 0.51], $p < 0.0001$). Similar association and *OR*s were also observed between self-labelled WPB and these nurse-reported outcomes. These results indicated high criterion validity of the SNAQ.

Table 5

Predictive Validity of the WPB Measures

	p value	*OR*	CI [*LL*, *UL*]
Behavioral experience method (SNAQ)			
Job satisfaction	< 0.0001	0.35	[0.26, 0.47]
Intent to leave	< 0.0001	2.50	[1.89, 3.32]
Nurse-reported quality of care	< 0.0001	0.32	[0.22, 0.47]
Nurse-reported patient safety grade	< 0.0001	0.38	[0.28, 0.51]
Self-labelling item			
Job satisfaction	0.0096	0.39	[0.19, 0.79]
Intent to leave	0.0050	2.74	[1.36, 5.55]
Nurse-reported quality of care	0.0321	0.43	[0.20, 0.93]
Nurse-reported patient safety grade	0.0005	0.28	[0.13, 0.57]

DISCUSSION

In this study we evaluated the reliability and validity of the SNAQ using a sample of U.S. registered nurses working in hospitals throughout Alabama. To the authors' knowledge, this is the first study to assess WPB using the SNAQ in a U.S. nursing sample. The Cronbach's alpha value for all nine SNAQ items suggested a high internal consistency reliability of the SNAQ in this sample. Despite the high overall reliability of the SNAQ, we originally observed a less than perfect construct validity by CFA. However, after rerunning the CFA using the EFA factor loadings that resulted in this study, the three model fit indices indicated a good fit. Additionally, the Cronbach's alpha for the work-related dimension rose considerably (from 0.54 to 0.84). The new alpha values ranged from 0.77 (physically intimidating) to 0.89 (overall), indicating good internal consistency (Taber, 2018). Therefore, the new dimensions from our EFA are recommended for the utilization and interpretation of the SNAQ in U.S. nursing samples.

Identifying consistent and easily interpretable, yet meaningful, dimensions in measures of WPB across varying samples is challenging (Nielsen et al., 2010). The differences of dimension belongings in the SNAQ items across samples can be partially explained by cultural variations, societal norms, and laws governing WPB among countries (Johnson, 2011). For instance, bullying behavior may be understood differently in varying cultural contexts as culture influences social phenomena and differs within local, regional, national, international, and organizational levels, with variations also occurring within organizations within the same country (Jacobson et al., 2014). Thus, the prevalence of WPB, the frequency of bullying behaviors, and which behaviors constitute

WPB may vary throughout differing levels of culture (Jacobson et al., 2014; Moayed et al., 2006).

It is not surprising that the percentage of nurse-reported WPB was considerably different when using the SNAQ and the self-labelling item. Indeed, because of the strengths and limitations of both, the two approaches are expected to yield different prevalence results (Nielsen, 2009; Nielsen et al., 2011). Since the SNAQ is a behavioral inventory, the identification of WPB targets is determined by the responses of several questions rather than a single answer. This aspect, along with the exclusion of the word "bullying" from behavioral inventories, may provide a more objective measure of WPB than the self-labelling method that reportedly underestimates the WPB status (Einarsen et al., 2009). Because each approach has strengths and limitations that the other does not have, authors recommend using both approaches in research, especially considering there is no gold standard for measuring WPB. Using both approaches provides a "balance" and allows for the reader to more transparently see the prevalence of the issue (Nielsen et al., 2011).

The ability of the SNAQ to categorize all or almost all (using both coding methods) nurses who labelled themselves as victims of WPB using the self-labelling item provides supporting evidence for the criterion validity of the SNAQ. Furthermore, the analysis using the SNAQ shows significant associations to all four outcomes assessed at the same time, providing additional evidence of the high criterion validity of the SNAQ. Additionally, and as depicted in Table 5, both the SNAQ and self-labelling item were significantly associated with all four outcomes and, remarkably, had fairly consistent *OR*s and 95% CIs. This indicates that although the prevalence rates differ between the two

approaches, both have good criterion validity in this sample. Due to the good criterion validity of the SNAQ and its ability to capture all or almost all nurses who were "bullied" as indicated by the self-labelling item, we support the recommendation for using the SNAQ in future WPB research.

Importantly, knowledge about the two approaches to measuring WPB introduces an ethical concern for researchers because the prevalence rates of WPB vary significantly depending on which approach is used in research. To avoid data manipulation regarding the prevalence of WPB, it is suggested to integrate both approaches in studies to produce a balanced view (Nielsen et al., 2011). However, the SNAQ offers actionable data for researchers, nursing leaders, and health care organizations to inform and develop targeted prevention strategies or interventions, whereas the self-labelling item only provides a prevalence estimate of the issue within the workplace. This should be taken into consideration when exploring WPB in research.

Study Limitations

In addition to the previously addressed limitations of the methods used to assess WPB, a primary limitation of this study, and others measuring bullying, is that the prevalence of WPB is based on the study participant's subjective interpretation of being victimized by bullying behaviors (Nielsen, 2009). The subjectivity introduces biases that can impact study results (Jahedi & Méndez, 2014; Podsakoff et al., 2003) and cause misinterpretation of findings. Additionally, in this study, both methods of measuring WPB used a 6-month time frame. The 6-month time frame was selected based on Leymann's (1996) recommendation, which refers to posttraumatic stress literature.

According to posttraumatic stress literature, a 6-month time frame corresponds to when a reaction following a traumatic event has likely occurred. However, a longer time frame would be necessary if exploring the lifetime prevalence of bullying, while a shorter time frame would be more meaningful if researchers are interested in constant exposure to bullying (Nielsen, 2009). Researchers' use of incompatible time frames also limits the comparability of bullying across studies (Nielsen, 2009). Further, the self-reporting bias can be another limitation since all the data are from memory recall.

In this study, 372 nurses were classified as "bullied" by the LCA of the SNAQ; however, only 70 were classified as "bullied" by the self-labelling item. Although the LCA is the recommended approach for analyzing the SNAQ (Reknes et al., 2017), the difference in prevalence between the two methods makes it difficult to draw conclusions. This limitation, as with others mentioned above, stems from the subjective nature of bullying exposure. Nurses who were classified as "bullied" using the SNAQ might not actually perceive themselves as being bullied. Further, what one person perceives to constitute bullying may not be deemed as bullying by another. Although there are strengths to using behavioral inventories such as the SNAQ, it is important for researchers and readers to acknowledge the limitations of measuring behavioral concepts, and they should interpret results with caution. Lastly, this study used cross-sectional data, which hampers the ability to conclude causal relationships between WPB and job satisfaction, intent to leave, nurse-reported quality of care, and nurse-reported patient safety grade.

Future Research

Notelaers and colleagues (2019) called for the testing and reporting of the psychometric properties of the SNAQ when used in different countries. Although the current study provides additional psychometrics of the SNAQ, we focused specifically on nurses working in hospitals located throughout one state in the U.S. Thus, further investigation is necessary to determine the generalizability of findings.

CONCLUSIONS

Using the EFA factor loadings in this study to reorganize the WPB dimensions, the SNAQ is a reliable and valid instrument to explore WPB in a sample of inpatient staff nurses working in hospitals throughout one state located in the U.S. In addition to its sufficient psychometric properties, the SNAQ is a convenient instrument that researchers can use in questionnaires if survey length is an issue. Therefore, the SNAQ is recommended for future nursing WPB research; in particular, its psychometric properties in different U.S. nursing samples can be further explored.

References

American Nurses Association. (2015). *American Nurses Association position statement on incivility, bullying, and workplace violence*. https://www.nursingworld.org/~49d6e3/globalassets/practiceandpolicy/nursing-excellence/incivility-bullying-and-workplace-violence--ana-position-statement.pdf

Anusiewicz, C., Montgomery, A., Fifolt, M., & Patrician, P.A. (2020). *Survey methodology and response rates among Alabama inpatient staff registered nurses* [Manuscript submitted for publication]. Department of Nursing, University of Alabama at Birmingham.

Anusiewicz, C. V., Shirey, M. R., & Patrician, P. A. (2019). Workplace bullying and newly licensed registered nurses: An evolutionary concept analysis. *Workplace Health & Safety, 67*(5), 250-261. https://doi.org/10.1177/2165079919827046

Blackman, I., Henderson, J., Willis, E., Hamilton, P., Toffoli, L., Verrall, C., Abery, E., & Harvey, C. (2015). Factors influencing why nursing care is missed. *Journal of Clinical Nursing, 24*(1-2), 47-56. https://doi.org/10.1111/jocn.12688

Castronovo, M. A., Pullizzi, A., & Evans, S. (2016). Nurse bullying: A review and a proposed solution. *Nursing Outlook*, *64*(3), 208-214. https://doi.org/10.1016/j.outlook.2015.11.008

Conway, P. M., Høgh, A., Nabe-Nielsen, K., Grynderup, M. B., Mikkelsen, E. G., Persson, R., Reiner, R., Bonde, J. P. E., Francioli, L., & Hansen, Å. M. (2018). Optimal cut-off points for the Short-Negative Acts Questionnaire and their association with depressive symptoms and diagnosis of depression. *Annals of*

Work Exposures and Health, 62(3), 281-294. https://doi.org/10.1093/annweh/wxx105

Cowie, H., Naylor, P., Rivers, I., Smith, P. K., & Pereira, B. (2002). Measuring workplace bullying. *Aggression and Violent Behavior*, *7*(1), 33-51. https://doi.org/10.1016/S1359-1789(00)00034-3

Crawford, C. L., Chu, F., Judson, L. H., Cuenca, E., Jadalla, A. A., Tze-Polo, L., Kawar, L. N., Runnels, C., & Garvida, R. (2019). Nurse-to-nurse incivility, hostility, and workplace violence: A GPS for nurse leaders. *Nursing Administration Quarterly, 43*(2), 138-156. https://doi.org/10.1097/NAQ.0000000000000338

Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress, 23*(1), 24-44. https://doi.org/10.1080/02678370902815673

Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2010). The concept of bullying and harassment at work: The European tradition. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Developments in theory, research, and practice* (2nd ed., pp. 3-39). Taylor & Francis. https://doi.org/10.1201/EBK1439804896

Houck, N. M., & Colbert, A. M. (2017). Patient safety and workplace bullying: An integrative review. *Journal of Nursing Care Quality*, *32*(2), 164-171. https://doi.org/10.1097/NCQ.0000000000000209

Hutchinson, M., Vickers, M., Jackson, D., & Wilkes, L. (2006). Workplace bullying in nursing: Towards a more critical organizational perspective. *Nursing Inquiry, 13*(2), 118-126. https://doi.org/10.1111/j.1440-1800.2006.00314.x

Jacobson, K. J., Hood, J. N., & Van Buren III, H. J. (2014). Workplace bullying across cultures: A research agenda. *International Journal of Cross Cultural Management, 14*(1), 47-65. https://doi.org/10.1177/1470595813494192

Jahedi, S., & Méndez, F. (2014). On the advantages and disadvantages of subjective measures. *Journal of Economic Behavior & Organization, 98*, 97-114. https://doi.org/10.1016/j.jebo.2013.12.016

Johnson, S. L. (2011). An ecological model of workplace bullying: A guide for intervention and research. *Nursing Forum, 46*(2), 55-63. https://doi.org/10.1111/j.1744-6198.2011.00213.x

Keashly, L., & Harvey, S. (2005). Emotional abuse in the workplace. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets* (pp. 201–235). American Psychological Association.

Laschinger, H. K. S. (2014). Impact of workplace mistreatment on patient safety risk and nurse-assessed patient outcomes. *Journal of Nursing Administration, 44*(5), 284-290. https://doi.org/10.1097/NNA.0000000000000068

Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims*, *5*(2), 119-126. https://doi.org/10.1891/0886-6708.5.2.119

Leymann, H. (1996). The content and development of mobbing at work. *European Journal of Work and Organizational Psychology, 5*(2), 165-184. https://doi.org/10.1080/13594329608414853

Moayed, F. A., Daraiseh, N., Shell, R., & Salem, S. (2006). Workplace bullying: A systematic review of risk factors and outcomes. *Theoretical Issues in Ergonomics Science, 7*(3), 311-327. https://doi.org/10.1080/14639220500090604

Nielsen, M. B. (2009). *Methodological issues in research on workplace bullying* [Unpublished doctoral dissertation]. University of Bergen.

Nielsen, M. B., & Einarsen, S. (2018). What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. *Aggression and Violent Behavior, 42,* 71-83. https://doi.org/10.1016/j.avb.2018.06.007

Nielsen, M. B., Einarsen, S., Notelaers, G., & Nielsen, G. H. (2016). Does exposure to bullying behaviors at the workplace contribute to later suicidal ideation? A three wave longitudinal study. *Scandinavian Journal of Work, Environment & Health, 42*(3), 246–250. https://www.jstor.org/stable/43999224

Nielsen, M. B., Matthiesen, S. B., & Einarsen, S. (2010). The impact of methodological moderators on prevalence rates of workplace bullying: A meta-analysis. *Journal of Occupational and Organizational Psychology*, *83*(4), 955-979. https://doi.org/10.1348/096317909X481256

Nielsen, M. B., Notelaers, G., & Einarsen, S. (2011). Measuring exposure to workplace bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and harassment in the workplace: Developments in theory, research, and practice* (pp. 149-174). Taylor & Francis.

Notelaers, G., & Einarsen, S. (2013). The world turns at 33 and 45: Defining simple cutoff scores for the Negative Acts Questionnaire–Revised in a representative

sample. *European Journal of Work and Organizational Psychology, 22*(6), 670-682. https://doi.org/10.1080/1359432X.2012.690558

Notelaers, G., Einarsen, S., De Witte, H., & Vermunt, J. K. (2006). Measuring exposure to bullying at work: The validity and advantages of the latent class cluster approach. *Work & Stress, 20*(4), 289-302. https://doi.org/10.1080/02678370601071594

Notelaers, G., Van der Heijden, B., Hoel, H., & Einarsen, S. (2019). Measuring bullying at work with the Short-Negative Acts Questionnaire: Identification of targets and criterion validity. *Work & Stress, 33*(1), 58-75. https://doi.org/10.1080/02678373.2018.1457736

Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903. https://doi.org/10.1037/0021-9010.88.5.879

Reknes, I., Notelaers, G., Magerøy, N., Pallesen, S., Bjorvatn, B., Moen, B. E., & Einarsen, S. (2017). Aggression from patients or next of kin and exposure to bullying behaviors: A conglomerate experience? *Nursing Research and Practice*, *2017*. https://doi.org/10.1155/2017/1502854

Salin, D. (2001). Prevalence and forms of bullying among business professionals: A comparison of two different strategies for measuring bullying. *European Journal of Work and Organizational Psychology, 10*(4), 425-441. https://doi.org/10.1080/13594320143000771

Salin, D., & Hoel, H. (2011). Organizational causes of workplace bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Eds.), *Bullying and harassment in the workplace: Developments in theory, research, and practice* (pp. 227-243). Taylor & Francis.

Schat, A. C., Frone, M. R., & Kelloway, E. K. (2006). Prevalence of workplace aggression in the US workforce: Findings from a national study. In E. K. Kelloway, J. Barling & J. J. Hurrell (Eds.), *Handbook of workplace violence* (pp. 47-89). Sage. https://doi.org/10.4135/9781412976947.n4

Sorra J., Gray L., Streagle S., Famolaro, T., Yount, N., & Behm, J. (2016). AHRQ Hospital Survey on Patient Safety Culture: User's Guide [PDF file]. Agency for Healthcare Research and Quality. https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/patientsafetyculture/hospital/userguide/hospcult.pdf

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273-1296. https://doi.org/10.1007/s11165-016-9602-2

The Joint Commission. (2016, June). Bullying has no place in health care [PDF file]. *Quick Safety, 24*. https://www.jointcommission.org/-/media/tjc/documents/newsletters/quick_safety_issue_24_june_2016pdf.

Vessey, J. A., DeMarco, R., & DiFazio, R. (2010). Bullying, harassment, and horizontal violence in the nursing workforce: The state of the science. *Annual Review of Nursing Research*, *28*(1), 133-157. https://doi.org/10.1891/0739-6686.28.133

Vessey, J. A., DeMarco, R. F., Gaffney, D. A., & Budin, W. C. (2009). Bullying of staff registered nurses in the workplace: A preliminary study for developing personal and organizational strategies for the transformation of hostile to healthy workplace environments. *Journal of Professional Nursing*, *25*(5), 299-306. https://doi.org/10.1016/j.profnurs.2009.01.022

Waschgler, K., Ruiz-Hernández, J. A., Llor-Esteban, B., & Jiménez-Barbero, J. A. (2013). Vertical and lateral workplace bullying in nursing: Development of the hospital aggressive behavior scale. *Journal of Interpersonal Violence, 28*(12), 2389-2412. https://doi.org/10.1177/0886260513479027

ASSOCIATIONS AMONG THE NURSING WORK ENVIRONMENT, NURSE-REPORTED WORKPLACE BULLYING, AND PATIENT OUTCOMES

by

COLLEEN V. ANUSIEWICZ, PENG LI, PAULINE A. SWIGER,
GORDON L. GILLESPIE, NATALIYA V. IVANKOVA, PATRICIA A. PATRICIAN

Submitted to *Nursing Research*

Format adapted for dissertation

PAPER TWO

ASSOCIATIONS AMONG THE NURSING WORK ENVIRONMENT, NURSE-REPORTED WORKPLACE BULLYING, AND PATIENT OUTCOMES

ABSTRACT

Background: Nurses continue to report experiencing workplace bullying (WPB), which may undermine the safety culture of healthcare organizations and threaten quality improvement initiatives and patient outcomes.

Objectives: The aim of this study was to explore the association between the nursing work environment and nurse-reported WPB, and the association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and patient safety).

Methods: In this cross-sectional analysis, survey data were analyzed from inpatient staff nurses working in hospitals throughout Alabama ($N = 943$). The nursing work environment was measured with the Practice Environment Scale of the Nursing Work Index (PES-NWI). Nurse-reported WPB was measured with the Short Negative Acts Questionnaire (SNAQ). Patient outcomes were measured by single items for nurse-reported quality of care and nurse-reported patient safety grade. Random effects logistic regressions were used to determine associations controlling for individual, employment, and organizational factors.

Results: A total of 377 (40%) inpatient staff nurses reported experiencing WPB. A higher PES-NWI composite score was significantly associated with a lower risk of nurse-reported WPB ($OR = 0.16$ [0.12, 0.22], $p < 0.0001$). Nurses experiencing WPB were less likely to report good/excellent quality of care ($OR = 0.28$ [0.18, 0.44], $p < 0.0001$) or a favorable patient safety grade ($OR = 0.36$ [0.25, 0.51], $p < 0.0001$).

Discussion: The findings from this study underscore the significant associations between the nursing work environment and nurse-reported WPB and between nurses' WPB experiences and poorer nurse-reported patient outcomes. Workplace bullying may be threatening patient safety and quality of care improvement initiatives and must be addressed organizationally. Examining the nursing work environment using the PES-NWI may provide direction for further understanding the presence of and effectively combating nurse-reported WPB at the organizational level.

Key words: Nursing, work environment, violence, quality, safety

INTRODUCTION

High quality, safe patient care is a fundamental expectation of an efficient and effective health care system (Institute of Medicine, 2001; Laschinger, 2014). As such, health care organizations in the United States (U.S.) continue to experience increased scrutiny and financial pressure to improve patient outcomes while reducing health care costs and enhancing patient experience (Agency for Healthcare Research and Quality [AHRQ], 2018; Centers for Medicare and Medicaid Services, n.d.). Representing the greatest proportion of the health care workforce (U.S. Department of Labor, Bureau of Labor Statistics, 2012), nurses spend the most time with patients, and often serve as mediators between members of the health care team and patients (Stimpfel et al., 2019). Thus, nurses are instrumental to facilitating patient healing, ensuring the delivery of quality and safe patient care, and preventing adverse events (Needleman & Hassmiller, 2009).

As emphasized in the 1999 Institute of Medicine report *To Err Is Human: Building a Safer Health System*, health care organizations can enhance patient outcomes by improving the organizational context in which care is provided (Sloane et al., 2018). The nursing work environment is a system foundation for nursing practice (Lake et al., 2019). Favorable nursing work environments facilitate improved nurse outcomes, which enables nurses to optimally perform and provide quality patient care (Aiken et al., 2008; Aiken & Patrician, 2000; Lake et al., 2019). However, mounting evidence indicates that nurses' well-being also influences the delivery of patient care and patient outcomes

(National Academy of Medicine, 2019; Rowe et al., 2019; Salyers et al., 2017). Nurses' exposure to workplace bullying (WPB) may negatively influence nurse well-being and patient outcomes.

Despite a substantial and growing body of evidence reflecting the negative effects of WPB on nurses, nurses continue to experience and report WPB internationally (Berry et al., 2012; Crawford et al., 2019). Researchers estimate that 27% to 80% of nurses have experienced WPB during their respective nursing careers (Sauer & McCoy, 2017). The experience of WPB in health care organizations may undermine safety culture in the workplace, potentially affecting the quality of nursing care and patient safety (Dang et al., 2005; The Joint Commission [TJC], 2008, 2016; Walrath et al., 2013). The purpose of this paper is to explore the association between the nursing work environment and nurse-reported WPB, and the association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and patient safety grade).

WPB in the Nursing Profession

Workplace bullying involves any negative behavior, exhibited by an individual or group of either perceived or actual power, that was repeatedly and persistently directed toward another individual, who had difficulty defending him- or herself against the behavior, for a prolonged time frame (i.e., at least six months) (Anusiewicz et al., 2019; Nielsen & Einarsen, 2018). Empirical evidence establishes a clear link between the experience of WPB and poor mental and physical health among nurses (Sauer & McCoy, 2017). In addition, nurses who have experienced WPB are also at risk for job dissatisfaction, decreased job performance, and an increased intent to leave their current

job or the nursing profession entirely (Houck & Colbert, 2017; Olsen et al., 2017). Researchers have therefore posited that due to the poor nursing outcomes associated with nurses who experience WPB and the strong associations between nursing and patient outcomes (Kutney-Lee, McHugh et al., 2009), there is a link between nurses experiencing WPB and poor patient outcomes (Houck & Colbert, 2017).

Workplace bullying in nursing has been conceptualized as oppressed group behavior (Roberts, 1983). Because nurses are predominantly female and the organizational structure of health care is patriarchal, disempowerment of nurses may be fostered (Dong & Temple, 2011). According to Friere (1970), oppressed individuals are more likely to adopt oppressive behaviors against others, including those within their own group, rather than retaliate against their oppressors. In alignment with the oppressed group behavior theory, researchers have suggested that because nurses may be an oppressed work group, they are at increased risk for disruptive workplace behaviors, including WPB (Gillespie et al., 2017; Purpora et al., 2012).

However, after over three decades of nurse-reported WPB inquiry (Meissner, 1986; Sauer & McCoy, 2017), researchers have proposed alternate explanations for WPB in nursing, including individual (e.g., personality types) and organizational (i.e., organizational culture, leadership styles, performance demands) factors. Ultimately, understanding exposure to WPB and its effects requires focusing on a combination of individual and organizational factors (Mathisen et al., 2012). Because most individual nurse factors are not modifiable, exploring health care organizational factors that may contribute to the presence of WPB in nursing would likely be a productive focus for

research and the development of organizational level interventions to decrease WPB (Hutchinson et al., 2006; Hutchinson et al., 2008).

Organizational Factors and Nurse-reported WPB

Health care organizations are characterized as stressful for a multitude of reasons, including frequent organizational changes (Hauge et al., 2007), performance demands (Olsen et al., 2017), lack of interprofessional collaboration, and rapid decision-making, that can have serious implications for care delivery and patient outcomes (Koinis et al., 2015). These stressors are compounded by a system-wide emphasis on cost containment, productivity, and efficiency at the same time that nurses are experiencing organizational constraints (Trépanier et al., 2016), high acuity workloads (Choi & Park, 2019; Giorgi et al., 2016), and differing leadership and managerial styles (Logan & Malone, 2018; Trépanier et al., 2016). Each of these organizational stressors are directly associated with increased rates of WPB. However, these stressors also frequently conflict with nurses' goals of providing compassionate care (Henderson & Jones, 2017; Tierney et al., 2019). As a result, nurses often report high levels of role conflict, role ambiguity, and poor job control (Hauge et al., 2007; Olsen et al., 2017; Trépanier et al., 2016), all of which also are associated with increased reports of WPB.

The nursing work environment is described as the organizational characteristics of a work setting that either "enhance or attenuate a nurse's ability to practice nursing skillfully and deliver high quality care" (Lake, 2002; Swiger et al., 2017, p. 76). The nursing work environment encompasses five domains (Figure 1) that are the result of research conducted in the 1980s to 1990s seeking to understand the organizational factors of hospitals that had fewer problems attracting and retaining highly qualified nursing staff

(Aiken & Patrician, 2000; Kramer & Schmalenberg, 1991). These domains were empirically tested with exploratory and confirmatory factor analyses (Lake, 2002).

Figure 1

Domains of the Nursing Work Environment

Domain	Description
Nurse Participation in Hospital Affairs	Reflects nurses' involvement in hospital and nursing department affairs (i.e., internal governance, policy decisions, and committees); opportunities for advancement; the presence of open communication with a responsive nursing administration; and the acknowledgment of a powerful, visible, and accessible nurse executive.
Nursing Foundations for Quality of Care	Emphasizes the nursing foundations for a high standard of patient care: 1) a pervasive nursing philosophy, 2) a nursing (rather than a medical) model of care, and 3) nurses' clinical competence.
Nurse Manager Ability, Leadership, & Support of Nurses	Focuses on the critical role of the nurse manager (i.e., their ability to lead, manage, and support nursing staff).
Staffing & Resource Adequacy	Refers to the presence of adequate staffing and support resources to provide quality patient care.
Physician – Nurse Relations	Focuses on the relationships between nurses and physicians, representing the nurses' desires to have a positive working relationship with physicians.

To the authors' knowledge, only two studies explore the association between the nursing work environment, as measured by the Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 2002), and incivility (Smith et al., 2018) and WPB (Yokoyama et al., 2016). Both studies reported significant bivariate associations between all five domains of the nursing work environment and the PES-NWI composite score and incivility (Smith et al., 2018) or WPB (Yokoyama et al., 2016).

Nurse-reported WPB and Patient Outcomes

Few studies have empirically examined the association between nurse-reported WPB and patient outcomes (Arnetz et al., 2019; Laschinger, 2014). Of the studies that exist, the association remains inconclusive; however, the majority support an association between nurse-reported WPB (or other disruptive workplace behaviors) and poorer patient outcomes. Using nurse-reported patient outcomes, varying types of disruptive workplace behaviors, including nurse-reported WPB, have been shown to be associated with poorer patient care quality, adverse events (i.e., medication errors, nosocomial infections, falls, work-related injury, and patient complaints), and patient safety risk (Laschinger, 2014; Liu et al., 2019; Oh et al., 2016; Purpora et al., 2012; Wright & Khatri, 2015). However, additional evidence suggests that nurses do not perceive their experiences of WPB to influence job performance (Olsen et al., 2017) or patient safety (Chipps et al., 2013). When exploring direct patient outcomes, Arnetz and colleagues (2019) found that nurse-reported WPB was associated with central line-associated bloodstream infections, but not significantly associated with patient falls, catheter-associated urinary tract infections, pressure injury, or ventilator-associated events. Additional evidence is needed to further determine the association between nurses experiencing WPB and patient outcomes.

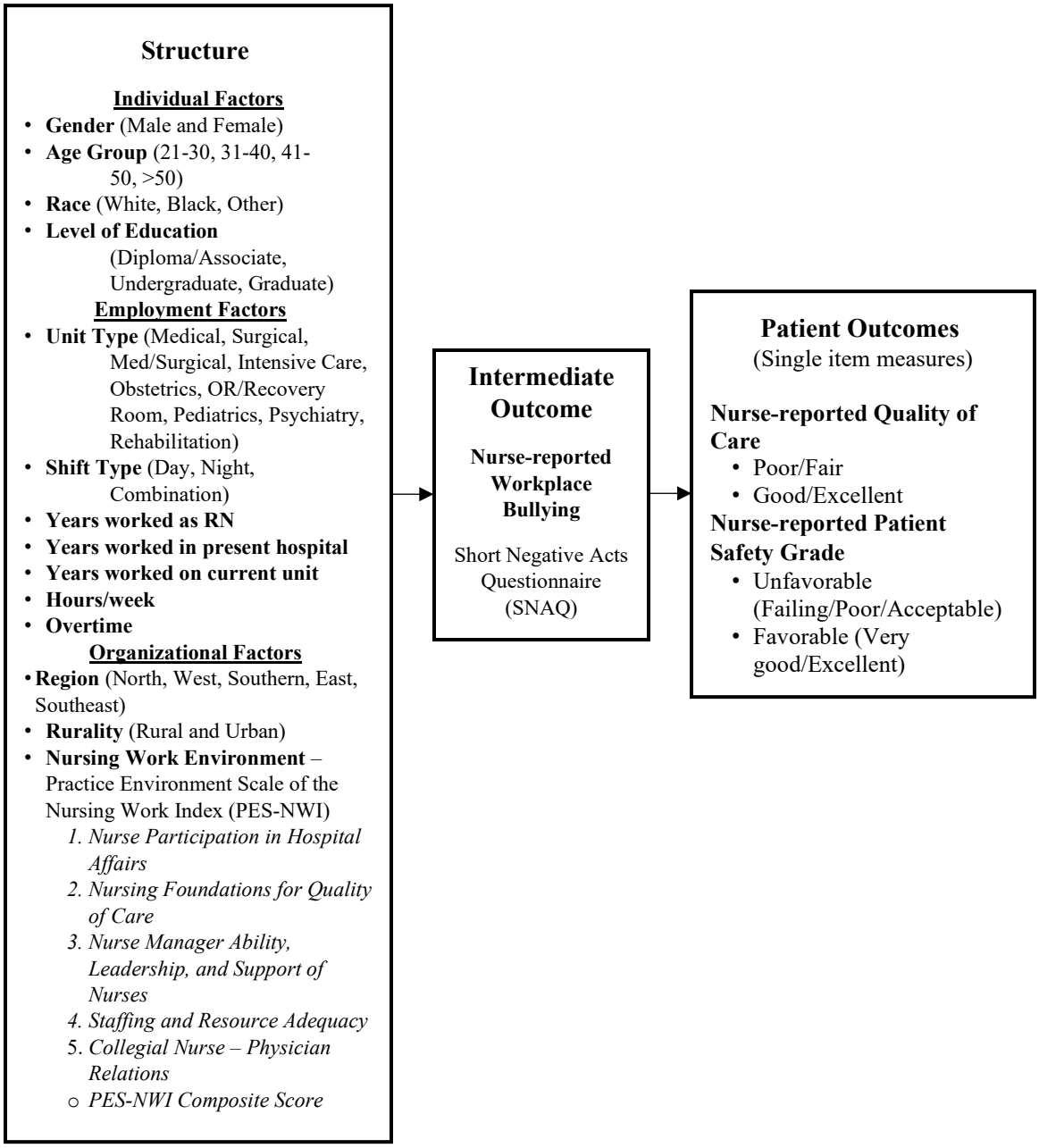
Conceptual Framework

The conceptual framework (Figure 2) that guided this research was a modification of Donabedian's (1966) structure, process, and outcome framework. Donabedian's (1966) framework is the most widely used in outcomes research and quality improvement

(Gallagher & Rowell, 2003). Donabedian proposed using a triad of categories to evaluate health care quality. These categories include structure (i.e., settings, provider qualifications, and administrative systems through which patient care occurs), process (i.e., components of patient care delivered, specifically, what is actually done in giving and receiving care), and outcome (i.e., focuses on patient recovery, restoration of function, and survival) (Ayanian & Markel, 2016; Donabedian, 1966).

Figure 2

Conceptual Framework



Note. Conceptual framework depicting the associations tested between the nursing work environment (i.e., structure), nurse-reported WPB (i.e., intermediate outcome), and nurse-reported quality of care and nurse-reported patient safety grade (i.e., patient outcomes).

MATERIALS AND METHODS

Design, Sample, and Data Sources

This cross-sectional study was part of the Alabama Hospital Staff Nurse Study (Anusiewicz et al., 2020). Nurses who were currently employed at an acute care hospital in an inpatient setting within the state of Alabama and were not advanced practice registered nurses (RN) were included in the study. Nurses who had an Alabama nursing license but an out-of-state address were excluded. A total of 1,354 inpatient staff nurses responded to the Alabama Hospital Staff Nurse Study web-based survey. A total of 943 nurses completed the Short Negative Acts Questionnaire (SNAQ), the instrument used to measure nurse-reported WPB, constituting the sample for this study. Data collection occurred between July 2018 and mid-January 2019.

Study Variables

Nurse-reported WPB

Nurse-reported WPB was measured using the SNAQ, a 9-item behavioral instrument that determines the perception of work-related, person-related, and physically intimidating bullying behaviors in the workplace (Notelaers et al., 2019). Nurses were asked to report the frequency of experiencing each of the nine behaviors listed in the SNAQ using a 5-point Likert scale (*never* = 1, *now and then* = 2, *monthly* = 3, *weekly* = 4, or *daily* = 5). A latent class analysis (LCA) was used to identify nurses who were and who were not bullied in the workplace (Anusiewicz et al., 2020). An LCA systematically classifies respondents into mutually exclusive groups with respect to a given trait (i.e., exposure to WPB) that is not directly observed (Reknes et al., 2017). The advantage of

the LCA approach includes the objective identification of groups based on data, independent of distributional assumptions (Notelaers et al., 2006; Reknes et al., 2017). Based on the results of the LCA, we dichotomized participating nurses into either *bullied* or *not bullied* groups. The SNAQ had a Cronbach's alpha of 0.89 in this sample.

Nurse-reported Quality of Care

Nurse-reported quality of care was assessed using a single-item measure. Nurses were asked to answer the question: "In general, how would you describe the quality of nursing care on your unit?" The responses included: *poor, fair, good,* and *excellent*. For analyses, the responses were dichotomized into either *poor/fair* or *good/excellent* quality of care. The validity of this single-item measure has been established in several studies (Kutney-Lee, Lake et al., 2009; McHugh & Stimpfel, 2012; Sochalski, 2004).

Nurse-reported Patient Safety Grade

Nurse-reported patient safety grade was assessed using a single-item measure included in the AHRQ's hospital survey on patient safety culture (Sorra et al., 2016). The single item asked nurses to respond to the statement: "Please give your work area/unit in this hospital an overall grade on patient safety." The self-report responses included: *excellent, very good, acceptable, poor,* or *failing*. For analysis, the responses were dichotomized into either a *favorable* patient safety grade (*excellent* and *very good*), or an *unfavorable* patient safety grade (*acceptable*, *poor*, and *failing*). Nurse-reported patient safety grade has moderate to high correlation with the composite scores of the AHRQ's hospital survey on patient safety culture (Sorra & Dyer, 2010).

Nursing Work Environment

The nursing work environment was measured using the Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 2002). The PES-NWI is a 31-item, empirically developed instrument that aims to measure modifiable factors in the nursing work environment that either support or detract from a nurse's ability to provide quality care (Aiken et al., 2012). In the survey, nurses indicated the extent to which certain work environment characteristics are present in their current job (Lake, 2002; Patrician et al., 2010). Using a 4-point Likert scale, the nurses' responses were coded as: *strongly disagree* = 1*, somewhat disagree* = 2, *somewhat agree* = 3, or *strongly agree* = 4. Each of the subscales were scored separately by calculating the mean of the items within the subscale. The subscale means were averaged to create a PES-NWI composite score (Lake, 2002). Scores close to 3.00 indicate that participants "agree" that the desirable characteristics are present in their nursing work environment. The PES-NWI has strong construct, discriminant, and concurrent validity and good subscale and composite score internal consistency reliability ($\alpha \geq .70$) (Bonneterre et al., 2008; Swiger et al., 2017). Additionally, the PES-NWI has been endorsed by the National Quality Forum (2004) and is collected as part of the National Database of Nursing Quality Indicators (Gajewski et al., 2010; Swiger, 2017). In this sample, the PES-NWI had an overall Cronbach's alpha of 0.96, indicating high internal consistency reliability (Bland & Altman, 1997; Tavakol & Dennick, 2011). The reliability of the individual subscales also was high with the Cronbach's alpha ranging from 0.86 to 0.90 in this sample.

Individual, Employment, and Organizational Factors

The survey assessed individual, employment, and organizational factors using one-item measures (Figure 2). Individual factors included gender, age group, race, and level of education. Employment factors included unit type, shift type, years worked as an RN, years worked in present hospital, years worked on current unit, worked hours/week, and worked overtime/week. Organizational factors included region, rurality, and the nursing work environment.

Statistical Analysis

The data were analyzed using R version 3.4.3. The descriptive statistics were summarized as median and range for continuous variables and as frequency and proportion for categorical variables. To determine the factors associated with nurse-reported WPB, bivariate analyses were conducted using random effects logistic regression accounting for the hierarchical nature of the data (i.e., nurses nested within hospitals) (Li et al., 2011). Nurse-reported WPB was the dependent variable and each of the individual, employment, and organizational factors were independent variables, with hospital as the random effect. The strength of each association was determined by the unadjusted odds ratios (*OR*) and 95% confidence intervals (95% CI [*LL, UL*]). The associations between nurse-reported WPB and the nursing work environment (the PES-NWI subscale and the composite scores) were examined with bivariate analyses. Further, the adjusted associations between nurse-reported WPB and the nursing work environment were assessed using multiple random effects logistic regression modelling, with nurse-reported WPB as the dependent variable, each of the individual subscale scores along

with the PES-NWI composite score as the independent variable, and hospital as random effect, adjusting for covariates. These covariates were selected based on their theoretical relevance and/or the *p* values (≤ 0.200) in the bivariate analyses aforementioned (Bursac et al., 2008). In cases of multicollinearity caused by highly correlated covariates, only the variables with the most theoretical relevance were included. The adjusted *OR*s and 95% CIs were obtained from the multiple regression modelling. Similar analyses were conducted to assess the factors associated with nurse-reported patient outcomes and to explore the unadjusted and adjusted association between patient outcomes and nurse-reported WPB. All tests were two-tailed with alpha levels of 0.05.

RESULTS

Sample Characteristics

Descriptive statistics for the sample are provided in Table 1. Most nurses worked in an urban setting (94.7%) in the eastern region of Alabama (64.4%). The sample was predominantly non-Hispanic white (82.0%), female (89.6%), and represented ages 21 to 73 years old (*Mdn* = 37). Over half of the nurses held an undergraduate (bachelor's) degree (56.1%), followed by diploma or associate degree (32.8%), and then graduate degree (11.1%). Nurses had worked as an RN for a median of 8 years (range = 0-50). Most nurses worked day shift (60.7%) with a median of 36 hours per week and minimal overtime (median of 2 hours/week). Nurses primarily reported good/excellent quality of care (84.1%) and a favorable patient safety grade (69.5%).

Table 1

Descriptive Statistics of Study Sample (N = 943)

Factor	Median or *n*	Range or %
Individual factors		
Age group		
21-30	336	36.0
31-40	190	20.3
41-50	154	16.5
>50	254	27.2
Gender		
Male	96	10.4
Female	826	89.6
Race		
Black (non-Hispanic)	104	11.5
White (non-Hispanic)	739	82.0
Other	58	6.4
Education level		
Diploma/associate degree	304	32.8
Undergraduate	521	56.1
Graduate (master, DNP, PhD)	103	11.1
Employment factors		
Years worked as an RN	8.00	0-50
Years worked in present hospital	4.00	0-42
Years worked on current unit	3.00	0-60
Unit type		
Medical	83	8.8
Surgical	71	7.6
Med/surgical	258	27.5
Intensive care	310	33.0
Obstetrics	91	9.7
OR/recovery room	47	5.0
Pediatrics	31	3.3
Psychiatry	30	3.2
Rehabilitation	17	1.8
Shift type		
Day	571	60.7
Evening/night	321	34.1
Combination (day/night)	49	5.2
Hours/week	36	0-60
Overtime/week	2	0-55
Organizational factors		
Region of Alabama		
North	74	7.8
West	25	2.7
Southern	80	8.5
East	607	64.4
Southeast	157	16.6
Rurality		
Rural	50	5.3
Urban	893	94.7

Note. DNP = Doctor of Nursing Practice; PhD = Doctor of Philosophy; RN = Registered Nurse

Factors Associated with Nurse-reported WPB

The LCA of the SNAQ suggested 40% (n = 377) of nurses reported experiencing WPB in the past 6 months. The bivariate analysis suggested that education (i.e., individual factor), as well as worked hours/week and worked overtime/week (i.e., employment factors) were associated with nurse-reported WPB (Table 2). Nurses with a graduate degree were more likely to report experiencing WPB when compared to nurses with a diploma/associate degree (OR = 1.76 [1.10, 2.82], p = 0.0192). One more worked hour/week and one more worked overtime hour/week were associated with a 3% or 2% increase of the odds of reporting WPB (OR = 1.03 [1.02, 1.05]; $p < 0.0001$ and OR = 1.02 [1.00, 1.04]; p = 0.0126, respectively).

Table 2

Association of Nurse-reported WPB with Individual, Employment, and Organizational Factors (Bivariate Analysis)

Factor	Raw *OR* [95% CI]	Raw *p* value
Individual Factors		
Gender: male (ref = female)	1.12 [0.72, 1.75]	**0.6019**
Age group (ref = 21-30)		**0.3029**
31-40	1.39 [0.95, 2.02]	0.0875
41-50	1.11 [0.74, 1.67]	0.6171
>50	0.99 [0.70, 1.42]	0.9696
Race (ref = white)		**0.6133**
Black or African American	0.80 [0.52, 1.25]	0.3301
Other	0.93 [0.53, 1.63]	0.7943
Education level (ref = diploma/associate)		**0.0502**
Undergraduate	1.30 [0.95, 1.77]	0.0962
Graduate (master, DNP, PhD)	1.76 [1.10, 2.82]	0.0192
Employment Factors		
Years worked as an RN	1.00 [0.98, 1.01]	**0.4640**
Years worked in present hospital	1.00 [0.98, 1.02]	**0.9240**
Years worked on current unit	1.01 [0.99, 1.02]	**0.4838**
Unit type (ref = ICU)		**0.1660**
Medical	1.30 [0.78, 2.14]	0.3107
Surgical	0.93 [0.53, 1.61]	0.7882
Med/surgical	0.94 [0.66, 1.34]	0.7255
Obstetrics	0.64 [0.38, 1.08]	0.0930
OR/recovery room	1.98 [1.04, 3.74]	0.0364
Pediatrics	0.86 [0.38, 1.95]	0.7168
Psychiatry	1.42 [0.66, 3.08]	0.3696
Rehabilitation	1.41 [0.51, 3.91]	0.5111
Shift type (ref = Day)		**0.9598**
Evening/night	0.96 [0.72, 1.28]	0.8000
Combination (day/night)	1.03 [0.56, 1.89]	0.9300
Hours/week	1.03 [1.02, 1.05]	**<0.0001**
Overtime/week	1.02 [1.00, 1.04]	**0.0126**
Organizational Factors		
Region (ref = North)		**0.1403**
West	0.80 [0.27, 2.44]	0.7004
Southern	0.59 [0.27, 1.26]	0.1704
East	0.44 [0.23, 0.84]	0.0129
Southeast	0.53 [0.26, 1.09]	0.0839
Rurality: rural (ref = urban)	0.68 [0.33, 1.40]	**0.2980**
Nurse participation in hospital affairs	0.28 [0.22, 0.35]	**<0.0001**
Nursing foundations for quality of care	0.20 [0.15, 0.27]	**<0.0001**
Nurse manager ability, leadership, and support of nurses	0.35 [0.30, 0.42]	**<0.0001**
Staffing and resource adequacy	0.40 [0.34, 0.48]	**<0.0001**
Collegial nurse – physician relations	0.40 [0.33, 0.50]	**<0.0001**
PES-NWI composite score	0.17 [0.13, 0.23]	**<0.0001**

Note. The *p* values were obtained from an *F* test in a simple random effects logistic regression with WPB as dependent variable and hospital as random effect.

Association Between the Nursing Work Environment and Nurse-reported WPB

The PES-NWI subscale and composite scores for the two WPB status groups (i.e., not bullied and bullied) are shown in Table 3. Across all nurse respondents, regardless of WPB status, the mean PES-NWI composite score was 2.84 ± 0.62, and subscale scores ranged from 2.51 for staffing and resource adequacy to 3.08 for nursing foundation for quality of care. Among nurses who reported being bullied, the mean PES-NWI composite score was 2.50 ± 0.56, and subscale scores ranged from 2.13 for nurse manager ability, leadership, and support of nurses to 2.82 for collegial nurse – physician relations. Among nurses who did not report being bullied, the mean PES-NWI composite score was 3.07 ± 0.56, and subscale scores ranged from 2.76 for staffing and resource adequacy to 3.28 for nursing foundations for quality of care.

Bivariate analysis suggested that for every 1-unit increase in the PES-NWI composite score (e.g., from a score of 2.00 to a score of 3.00) the odds of reporting being bullied decreased by 83% (*OR* = 0.17 [0.13, 0.23]; $p < 0.0001$). After controlling for covariates including individual (gender, age group, race, and education), employment (unit type and hours per week), and organizational (region) factors, similar results were observed with an adjusted *OR* of 0.16 [0.12, 0.22], $p < 0.0001$ (Table 3). Similar associations also were found between nurse-reported WPB and all five subscales of the nursing work environment (Table 3).

Table 3

Adjusted Association Between Nurse-reported WPB and the Nursing Work Environment Characteristics

Model	PES-NWI	Not bullied (*n* = 566) Mean	Not bullied (*n* = 566) *SD*	Bullied (*n* = 377) Mean	Bullied (*n* = 377) *SD*	Not bullied vs. bullied Adj. *OR* [CI]*
1	Nurse participation in hospital affairs	2.97	0.66	2.38	0.68	0.28 [0.22, 0.36]
2	Nursing foundations for quality of care	3.28	0.51	2.79	0.61	0.21 [0.15, 0.28]
3	Nurse manager ability, leadership, and support of nurses	3.10	0.77	2.13	0.79	0.35 [0.29, 0.43]
4	Staffing and resource adequacy	2.76	0.83	2.39	0.82	0.34 [0.28, 0.43]
5	Collegial nurse – physician relations	3.24	0.62	2.82	0.72	0.38 [0.30, 0.48]
6	PES-NWI composite score	3.07	0.56	2.50	0.56	0.16 [0.12, 0.22]

Note. * Models adjusted for: gender, age group, race, education, unit type, hours/week, and region (all risk factors ($p \leq 0.200$) for WPB).

Nurse-reported WPB and Patient Outcomes

Nurse-reported Quality of Care

Bivariate analyses showed that individual (race and education) and employment (years as an RN, years in unit, unit type, and overtime) factors and WPB were significantly associated with nurse-reported quality of care ($p < 0.05$) (Table 4). Non-Hispanic Black or African American nurses were less likely to report good/excellent quality of care when compared to non-Hispanic white nurses (*OR* = 0.59 [0.35, 1.00], p = 0.0487). Nurses with a graduate degree were less likely to report good/excellent quality of care when compared to nurses with a diploma/associate degree (*OR* = 0.57 [0.32,

1.00], $p = 0.0486$). Nurses who had been working longer as an RN were more likely to report good/excellent quality of care (*OR* = 1.02 [1.01, 1.04], $p = 0.0114$). Furthermore, nurses who had worked longer on their current unit (*OR* = 1.03 [1.00, 1.06], $p = 0.0390$) were more likely to report good/excellent quality of care. Our results also suggested that the unit type was significantly associated with nurse-reported quality of care, for example, nurses working in medical and medical/surgical units were less likely to report good/excellent quality of care when compared to nurses working in intensive care (*OR* = 0.44 [0.23, 0.82], $p = 0.0093$; *OR* = 0.50 [0.31, 0.78], $p = 0.0027$, respectively).

Bivariate analysis suggested that nurses who experienced WPB were less likely to report good/excellent quality of care (*OR* = 0.32 [0.22, 0.47], $p < 0.0001$) compared to nurses who did not experience WPB. After controlling for covariates including individual (gender, race, and education), employment (unit type, years as an RN, and hours per week), and organizational (rurality) factors, similar results were observed with an adjusted *OR* of 0.28 [0.18, 0.44], $p < 0.0001$.

Table 4

Associations Between Good/Excellent Nurse-reported Quality of Care and Individual, Employment, and Organizational Factors (Bivariate Analysis)

Factor	Raw *OR* [95% CI]	Raw *p* value
Individual Factors		
Gender: male (ref = female)	0.91 [0.51, 1.61]	**0.7390**
Age group (ref = 21-30)		**0.1210**
31-40	0.71 [0.44, 1.13]	0.1510
41-50	1.11 [0.64, 1.93]	0.7130
>50	1.31 [0.80, 2.14]	0.2870
Race (ref = white)		**0.0053**
Black or African American	0.59 [0.35, 1.00]	0.0487
Other	0.41 [0.22, 0.76]	0.0046
Education level (ref = diploma/associate)		**0.0216**
Undergraduate	1.19 [0.79, 1.78]	0.4057
Graduate (master, DNP, PhD)	0.57 [0.32, 1.00]	0.0486
Employment Factors		
Years worked as an RN	1.02 [1.01, 1.04]	**0.0114**
Years worked in present hospital	1.02 [1.00, 1.05]	**0.0572**
Years worked on current unit	1.03 [1.00, 1.06]	**0.0390**
Unit type (ref = ICU)		**0.0071**
Medical	0.44 [0.23, 0.82]	0.0093
Surgical	0.64 [0.31, 1.29]	0.2117
Med/surgical	0.50 [0.31, 0.78]	0.0027
Obstetrics	1.18 [0.56, 2.50]	0.6614
OR/recovery room	7.10 [0.95, 53.22]	0.0565
Pediatrics	1.33 [0.38, 4.69]	0.6609
Psychiatry	0.54 [0.21, 1.43]	0.2145
Rehabilitation	0.64 [0.17, 2.39]	0.5022
Shift type (ref = day)		**0.2510**
Evening/night	1.12 [0.76, 1.65]	0.5660
Combination (day/night)	0.60 [0.30, 1.21]	0.1550
Hours/week	0.98 [0.96, 1.00]	**0.1090**
Overtime/week	0.98 [0.96, 1.00]	**0.0240**
Organizational Factors		
Region (ref = North)		**0.4793**
West	0.48 [0.14, 1.63]	0.2410
Southern	0.64 [0.26, 1.57]	0.3260
East	0.94 [0.42, 2.10]	0.8820
Southeast	1.10 [0.46, 2.62]	0.8360
Rurality: rural (ref = urban)	2.73 [0.91, 8.19]	**0.0732**
Nurse-reported WPB		
Bully status: bullied (ref = not bullied)	0.32 [0.22, 0.47]	**<0.0001**

Note. The *p* values were obtained from a simple random effects logistic regression with nurse-reported quality of care as dependent variable and hospital as random effect.

Nurse-reported Patient Safety Grade

Bivariate analyses showed that individual (age group, race, and education), employment (years in hospital, years in unit, and unit type), and organizational (region and rurality) factors were significantly associated with nurse-reported patient safety grade ($p < 0.05$) (Table 5). For example, non-Hispanic Black or African American nurses were less likely to report a favorable patient safety grade when compared to non-Hispanic white nurses (*OR* = 0.59 [0.38, 0.91], $p = 0.0177$), and nurses who had worked longer on their current unit and in their current hospital were more likely to report a favorable patient safety grade (*OR* = 1.03 [1.01, 1.06], $p = 0.0065$; *OR* =1.02 [1.00, 1.04], $p = 0.0385$), respectively. Nurses who worked in rural hospitals were more likely to report a favorable patient safety grade when compared to nurses who worked in urban hospitals (*OR* = 3.15 [1.27, 7.80], $p = 0.0132$).

Bivariate analysis suggested that nurses who experienced WPB were less likely to report a favorable patient safety grade (*OR* = 0.38 [0.28, 0.51], $p < 0.0001$) compared to nurses who did not experience WPB. After controlling for covariates including individual (gender, race, and education), employment (unit type, shift type, years as an RN, and hours per week), and organizational (region and rurality) factors, similar results were observed with an adjusted *OR* of 0.36 [0.25, 0.51], $p < 0.0001$.

Table 5

Associations Between Favorable Nurse-reported Patient Safety Grade and Individual, Employment, and Organizational Factors (Bivariate Analysis)

Factor	Raw *OR* [95% CI]	Raw *p* value
Individual Factors		
Gender: male (ref = female)	1.16 [0.71, 1.88]	**0.5570**
Age group (ref = 21-30)		**0.0122**
31-40	1.30 [0.86, 1.96]	0.2134
41-50	0.87 [0.57, 1.33]	0.5127
>50	1.71 [1.15, 2.54]	0.0075
Race (ref = white)		**0.0021**
Black or African American	0.59 [0.38, 0.91]	0.0177
Other	0.45 [0.25, 0.78]	0.0045
Education level (ref = diploma/associate)		**0.0218**
Undergraduate	1.28 [0.93, 1.78]	0.1353
Graduate (master, DNP, PhD)	0.70 [0.43, 1.13]	0.1412
Employment Factors		
Years worked as an RN	1.01 [1.00, 1.03]	**0.0586**
Years worked in present hospital	1.02 [1.00, 1.04]	**0.0385**
Years worked on current unit	1.03 [1.01, 1.06]	**0.0065**
Unit type (ref = ICU)		**<0.0001**
Medical	0.51 [0.29, 0.87]	0.0143
Surgical	0.48 [0.27, 0.85]	0.0123
Med/surgical	0.32 [0.22, 0.47]	<0.0001
Obstetrics	1.01 [0.56, 1.81]	0.9782
OR/recovery room	3.18 [1.09, 9.31]	0.0349
Pediatrics	1.10 [0.42, 2.89]	0.8527
Psychiatry	0.66 [0.28, 1.54]	0.3342
Rehabilitation	0.30 [0.11, 0.84]	0.0225
Shift type (ref = day shift)		**0.1251**
Evening shift/night shift	1.15 [0.84, 1.57]	0.3886
Combination (both day-night shift)	0.59 [0.32, 1.10]	0.0958
Hours/week	0.99 [0.97, 1.01]	**0.1878**
Overtime/week	0.99 [0.97, 1.00]	**0.1240**
Organizational Factors		
Region (ref = North)		**0.0007**
West	0.34 [0.13, 0.87]	0.0236
Southern	1.06 [0.54, 2.07]	0.8657
East	1.41 [0.85, 2.36]	0.1874
Southeast	0.80 [0.45, 1.43]	0.4574
Rurality: rural (ref = urban)	3.15 [1.27, 7.80]	**0.0132**
Nurse-reported WPB		
Bully status: bullied (ref = not bullied)	0.38 [0.28, 0.51]	**<0.0001**

Note. The *p* values were obtained from a simple random effects logistic regression with nurse-reported patient safety grade as dependent variable and hospital as random effect.

DISCUSSION

Following Donabedian's (1966) structure, process, outcomes framework, and using a sample of inpatient staff nurses working in Alabama, this study explored the association between the nursing work environment and nurse-reported WPB, and the association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and patient safety grade). The findings indicate that the nursing work environment is significantly associated with nurse-reported WPB and that nurses who experience WPB report poorer patient outcomes.

Frequency of Nurse-reported WPB

In this study, 40% (n = 377) of nurses reported experiencing WPB in the past 6 months. This percentage is comparable to the 44% reported by TJC (2016), and was obtained following methodological recommendations by research leaders in the area of WPB (Notelaers et al., 2019; Reknes et al., 2017). Nurses were more likely to report experiencing WPB if they had a graduate degree and worked more hours/week or more overtime hours/week. Interestingly, individual factors (i.e., gender, age group, and race) were not significantly associated with nurse-reported WPB.

We also found that WPB was not significantly associated with years as an RN, years worked in present hospital, or years worked in current unit. These findings, along with age group being non-significant, refute the well-used idiom "nurses eat their young" and the idea that the more clinical experience, seniority, and familiarity with a unit/hospital a nurse has, the less likely they are to be bullied (Granstra, 2015; Koh, 2016; Yokoyama et al., 2016). This finding contradicts a large amount of nursing research that

had suggested newly licensed nurses are at highest risk for experiencing WPB (Flateau-Lux & Gravel, 2014; Laschinger et al., 2010; Leong & Crossman, 2016; Rush et al., 2014; Simons & Mawn, 2010). Based on our findings, and in line with others (Johnson & Rea, 2009; Purpora et al., 2012), we believe it would be beneficial to broaden the focus of WPB to the nursing workforce in general and emphasize the need to further explore organizational factors for intervention development, as nurse-reported WPB can transcend individual and employment factors.

Also, our bivariate findings indicate that unit type was not significantly associated with nurse-reported WPB. This finding contradicts literature underscoring that fast-paced units characterized by higher patient acuity (i.e., operating room or intensive care) often have higher rates of WPB (Ariza-Montes et al., 2013; Park et al., 2015). Further, the non-significant association suggests that working in a health care setting is generally stressful, demanding, and hierarchy oriented, placing nurses at risk for WPB despite unit type. We recognize that our findings are from one study of inpatient staff nurses in Alabama but encourage readers, researchers, and nursing administrators to expand their understanding of the scope of WPB in nursing as a problem that may potentially threaten the entire workforce rather than nurses in specific unit types or with particular individual or employment factors.

Nurse-reported WPB and the Nursing Work Environment

Until recently, research using the PES-NWI to measure the nursing work environment has largely focused on the instrument's composite score, with minimal analysis conducted using the individual subscale scores (Swiger, 2017). Exploring the

subscales, or domains, of the nursing work environment that have the strongest associations with nurse-reported WPB could provide more actionable strategies to decrease nurse-reported WPB from an organizational level, and subsequently improve patient outcomes.

In this study, although all five domains of the nursing work environment were significantly associated with nurse-reported WPB, nursing foundations for quality care had the strongest association (OR = 0.21 [0.15, 0.28], $p < 0.0001$), followed by nurse participation in hospital affairs (OR = 0.28 [0.22, 0.36], $p < 0.0001$), after adjusting for individual, employment, and organizational factors (i.e., gender, age group, race, education, unit type, hours per week, and region). Both domains reflect attributes of the nursing work environment that empower nurses through promoting autonomy, increasing nurses' control over their practice, and providing organizational support (Aiken & Patrician, 2000). This finding is not surprising given that role conflict, role ambiguity, poor job control, and a lack of autonomy (Hauge et al., 2007; Olsen et al., 2017; Trépanier et al., 2016) are all associated with increased reports of WPB. Our study reinforces the importance of encouraging health care organizations to support their nursing workforce through improving the nursing work environment, and focusing on these two domains in particular.

Overall, our findings support the conclusion that the nursing work environment, the primary organizational factor explored in this study, contributes to nurse-reported WPB. Notably, our findings also indicate that WPB can transcend individual and employment level factors. Therefore, the issue of nurses experiencing WPB cannot be addressed in the workplace by focusing on individual, employment, or organizational

factors alone (Ariza-Montes et al., 2013; Mathisen et al., 2012). In short, nurse-reported WPB is a multicausal phenomenon that will require commitment by nurses, nursing administrations, and health care organizations to combat such behaviors through employing multifaceted approaches.

Nurse-reported WPB and Patient Outcomes

Our study supports an association between nurse-reported WPB and poorer nurse-reported patient outcomes (i.e., quality of care and patient safety grade). In this study, nurses experiencing WPB were less likely to report good/excellent quality of care (OR = 0.28 [0.18, 0.44], $p < 0.0001$) or a favorable patient safety grade (OR = 0.36 [0.25, 0.51], $p < 0.0001$) after adjusting for respective individual, employment, and organizational factors. These findings add to the literature on the link between nurses' experiences of WPB and patient outcomes.

Laschinger (2014) reported that WPB has unfavorable effects on nurse-reported patient quality of care through its impact on nurse perceptions of patient safety risk. In the wider context of improving patient care and increasing patient satisfaction, the negative influence of WPB on patient outcomes, whether through the quality of care provided or patient safety, should propel the science forward to improve the nursing work environment as an avenue for WPB intervention. Previous research shows that improving nursing work environments has an additive benefit of improving nurse, patient, and organizational outcomes (Aiken et al., 2011; Lake et al., 2019; Wei et al., 2018).

Future Research

Based on significant associations in this study between the nursing work environment and nurse-reported WPB, and nurse-reported WPB and patient outcomes, future research should be conducted to determine if nurse-reported WPB is a potential mediator between the nursing work environment and patient outcomes. This would further inform the development of WPB interventions, wherein through targeting the domains of the nursing work environment, researchers and health care organizations may more effectively decrease nurse-reported WPB, and subsequently improve patient and health care organizational outcomes.

Limitations

This study used cross-sectional data and therefore cannot determine causal relationships between variables. The targeted sample of inpatient staff nurses working in hospital settings in one state limits the generalizability of the findings to nurses working in other settings. We also were unable to identify the perpetrators of WPB toward nurses, limiting our understanding of WPB among nurses. Additionally, although nurses are valuable informants of the overall quality and safety in hospitals, nurse-reported patient outcomes were assessed using one-item measures rather than direct outcomes provided by institutional data.

CONCLUSIONS

The results of this study suggest that the nursing work environment is associated with nurse-reported WPB, and that nurses' experiences of WPB can threaten patient

outcomes (i.e., nurse-reported quality of care and patient safety grade). Improving the nursing work environment is one approach health care organizations can utilize to enhance care delivery and improve patient outcomes (Djukic et al., 2013; Institute of Medicine, 2004; Kane et al., 2007). Additionally, examining the nursing work environment using the PES-NWI may potentially provide direction for further understanding the presence of and effectively combating nurse-reported WPB at the organizational level.

References

Agency for Healthcare Research and Quality. (2018, June). *2016 National Healthcare Quality and Disparities Report: Overview of quality and access in the U.S. health care system.* Quality and Disparities Reports. https://www.ahrq.gov/research/findings/nhqrdr/nhqdr16/overview.html

Aiken, L. H., Clarke, S. P., Sloane, D. M., Lake, E. T., & Cheney, T. (2008). Effects of hospital care environment on patient mortality and nurse outcomes. *The Journal of Nursing Administration, 38*(5), 223. https://doi.org/1097/01.NNA.0000312773.42352.d7

Aiken, L. H., & Patrician, P. A. (2000). Measuring organizational traits of hospitals: The Revised Nursing Work Index. *Nursing Research, 49*(3), 146-153. https://doi.org/10.1097/00006199-200005000-00006

Aiken, L. H., Sermeus, W., Van den Heede, K., Sloane, D. M., Busse, R., McKee, M., Bruyneel, L., Rafferty, A. M., Griffiths, P., Moreno-Casbas, M. T., Tishelman, C., Scott, A., Brzostek, T., Kinnunen, J., Schwendimann, R., Heinen, M., Zikos, D., Sjetne, I. S., Smith, H. L., & Kutney-Lee, A. (2012). Patient safety, satisfaction, and quality of hospital care: Cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *BMJ, 344,* e1717. https://doi.org/10.1136/bmj.e1717

Aiken, L. H., Sloane, D. M., Clarke, S., Poghosyan, L., Cho, E., You, L., Finlayson, M., Kanai-Pak, M., & Aungsuroch, Y. (2011). Importance of work environments on

hospital outcomes in nine countries. *International Journal for Quality in Health Care, 23*(4), 357-364. https://doi.org/10.1093/intqhc/mzr022

Anusiewicz, C., Montgomery, A., Fifolt, M., & Patrician, P.A. (2020). *Survey methodology and response rates among Alabama inpatient staff registered nurses* [Manuscript submitted for publication]. Department of Nursing, University of Alabama at Birmingham.

Anusiewicz, C. V., Shirey, M. R., & Patrician, P. A. (2019). Workplace bullying and newly licensed registered nurses: An evolutionary concept analysis. *Workplace Health & Safety, 67*(5), 250-261. https://doi.org/10.1177/2165079919827046

Ariza-Montes, A., Muniz, N. M., Montero-Simó, M. J., & Araque-Padilla, R. A. (2013). Workplace bullying among healthcare workers. *International Journal of Environmental Research and Public Health, 10*(8), 3121-3139. https://doi.org/10.3390/ijerph10083121

Arnetz, J. E., Sudan, S., Fitzpatrick, L., Cotten, S. R., Jodoin, C., Chang, C. H., & Arnetz, B. B. (2019). Organizational determinants of bullying and work disengagement among hospital nurses. *Journal of Advanced Nursing, 75*(6), 1229-1238. https://doi.org/10.1111/jan.13915

Ayanian, J. Z., & Markel, H. (2016). Donabedian's lasting framework for health care quality. *The New England Journal of Medicine, 375*(3), 205. https://doi.org/10.1056/NEJMp1605101

Berry, P. A., Gillespie, G. L., Gates, D., & Schafer, J. (2012). Novice nurse productivity following workplace bullying. *Journal of Nursing Scholarship, 44*(1), 80-87. https://doi.org/10.1111/j.1547-5069.2011.01436.x

Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *BMJ, 314*, 572. https://doi.org/10.1136/bmj.314.7080.572

Bonneterre, V., Liaudy, S., Lang, T., & Baudemaris, R. D. (2008). Reliability, validity, and health issues arising from questionnaires used to measure psychosocial and organizational work factors (POWFs) among hospital nurses: A critical review. *Journal of Nursing Measurement, 16,* 207-230. https://doi.org/10.1891/1061-3749.16.3.207

Bursac, Z., Gauss, C. H., Williams, D. K., & Hosmer, D. W. (2008). Purposeful selection of variables in logistic regression. *Source Code for Biology and Medicine, 3*(1), 17. https://doi.org/10.1186/1751-0473-3-17

Centers for Medicaid and Medicare Services. (n.d.). *We're putting patients first.* https://www.cms.gov/

Chipps, E., Stelmaschuk, S., Albert, N. M., Bernhard, L., & Holloman, C. (2013). Workplace bullying in the OR: Results of a descriptive study. *AORN Journal, 98*(5), 479-493. https://doi.org/10.1016/j.aorn.2013.08.015

Choi, J., & Park, M. (2019). Effects of nursing organizational culture on face-to-face bullying and cyberbullying in the workplace. *Journal of Clinical Nursing, 28*(13-14), 2577-2588. https://doi.org/10.1111/jocn.14843

Crawford, C. L., Chu, F., Judson, L. H., Cuenca, E., Jadalla, A. A., Tze-Polo, L., Kawar, L. N., Runnels, C., & Garvida, R. (2019). Nurse-to-nurse incivility, hostility, and workplace violence: A GPS for nurse leaders. *Nursing Administration Quarterly, 43*(2), 138-156. https://doi.org/10.1097/NAQ.0000000000000338

Dang, D., Nyberg, D., Walrath, J. M., & Kim, M. T. (2005). Development and validation of the Johns Hopkins disruptive clinician behavior survey. *The Academy of Management Executive, 19*(1), 7-18. https://doi.org/10.1177/1062860614544193

Djukic, M., Kovner, C. T., Brewer, C. S., Fatehi, F. K., & Cline, D. D. (2013). Work environment factors other than staffing associated with nurses' ratings of patient care quality. *Health Care Management Review, 38*(2), 105-114.

Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Quarterly, 44*(3), 166-203. https://doi.org/10.1111/j.1468-0009.2005.00397.x

Dong, D., & Temple, B. (2011). Oppression: A concept analysis and implications for nurses and nursing. *Nursing Forum, 46*(3), 169-176. https://doi.org/10.1111/j.1744-6198.2011.00228.x

Flateau-Lux, L. R., & Gravel, T. (2014). Put a stop to bullying new nurses. *Home Healthcare Now, 32*(4), 225-229. https://doi.org/10.1097/NHH.0000000000000045

Friere, P. (1970). *Pedagogy of the oppressed* (M. B. Ramos, Trans.). Herder & Herder.

Gajewski, B. J., Boyle, D. K., Miller, P. A., Oberhelman, F., & Dunton, N. (2010). A multilevel confirmatory factor analysis of the Practice Environment Scale: A case study. *Nursing Research, 59*(2), 147-153. https://doi.org/10.1097/NNR.0b013e3181d1a71e

Gallagher, R. M., & Rowell, P. A. (2003). Claiming the future of nursing through nursing-sensitive quality indicators. *Nursing Administration Quarterly, 27*(4), 273-284. https://doi.org/10.1097/00006216-200310000-00004

Gillespie, G. L., Grubb, P. L., Brown, K., Boesch, M. C., & Ulrich, D. (2017). "Nurses eat their young": A novel bullying educational program for student nurses. *Journal of Nursing Education and Practice*, *7*(7), 11. https://doi.org/10.5430/jnep.v7n7P11

Giorgi, G., Mancuso, S., Fiz Perez, F., Castiello D'Antonio, A., Mucci, N., Cupelli, V., & Arcangeli, G. (2016). Bullying among nurses and its relationship with burnout and organizational climate. *International Journal of Nursing Practice, 22*(2), 160-168. https://doi.org/10.1111/ijn.12376

Granstra, K. (2015). Nurse against nurse: Horizontal bullying in the nursing profession. *Journal of Healthcare Management, 60*(4), 249-257. https://doi.org/10.1097/00115514-201507000-00006

Hauge, J. L., Skogstad, A., & Einarsen, S. (2007). Relationships between stressful work environments and bullying: Results of a large representative study. *Work & Stress, 21*(3), 220-242. https://doi.org/10.1080/02678370701705810

Henderson, A., & Jones, J. (2017). Developing and maintaining compassionate care in nursing. *Nursing Standard, 32*(4), 60-68. https://doi.org/10.7748/ns.2017.e10895

Houck, N. M., & Colbert, A. M. (2017). Patient safety and workplace bullying: An integrative review. *Journal of Nursing Care Quality*, *32*(2), 164-171. https://doi.org/10.1097/NCQ.0000000000000209

Hutchinson, M., Jackson, D., Wilkes, L., & Vickers, M. H. (2008). A new model of bullying in the nursing workplace: Organizational characteristics as critical antecedents. *Advances in Nursing Science, 31*(2), E60-E71. https://doi.org/10.1097/01.ANS.0000319572.37373.0c

Hutchinson, M., Vickers, M., Jackson, D., & Wilkes, L. (2006). Workplace bullying in nursing: Towards a more critical organizational perspective. *Nursing Inquiry, 13*(2), 118-126. https://doi.org/10.1111/j.1440-1800.2006.00314.x

Institute of Medicine. (1999, November). To err is human: Building a safer health system. http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/1999/To-Err-is-Human/To%20Err%20is%20Human%201999%20%20report%20brief.pdf

Institute of Medicine. (2001, March). Crossing the quality chasm: A new health system for the 21st century. http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf

Institute of Medicine. (2004). *Keeping patients safe: Transforming the work environment of nurses*. The National Academy Press.

Johnson, S. L., & Rea, R. E. (2009). Workplace bullying: Concerns for nurse leaders. *JONA: The Journal of Nursing Administration, 39*(2), 84-90. https://doi.org/10.1097/NNA.0b013e318195a5fc

Kane, R. L., Shamliyan, T. A., Mueller, C., Duval, S., & Wilt, T. J. (2007). The association of registered nurse staffing levels and patient outcomes: Systematic review and meta-analysis. *Medical Care*, *45*(12), 1195-1204. https://doi.org/10.1097/MLR.0b013e3181468ca3

Koh, W. M. S. (2016). Management of work place bullying in hospital: A review of the use of cognitive rehearsal as an alternative management strategy. *International*

Journal of Nursing Sciences, 3(2), 213-222. https://doi.org/10.1016/j.ijnss.2016.04.010

Koinis, A., Giannou, V., Drantaki, V., Angelaina, S., Stratou, E., & Saridi, M. (2015). The impact of healthcare workers job environment on their mental-emotional health. Coping strategies: The case of a local general hospital. *Health Psychology Research, 3*(1). https://doi.org/10.4081/hpr.2015.1984

Kramer, M., & Schmalenberg, F. C. (1991). Job satisfaction and retention insights for the '90s: Part 2. *Nursing91, 21*(4), 51-55.

Kutney-Lee, A., Lake, E. T., & Aiken, L. H. (2009). Development of the hospital nurse surveillance capacity profile. *Research in Nursing & Health, 32*(2), 217-228. https://doi.org/10.1002/nur.20316

Kutney-Lee, A., McHugh, M. D., Sloane, D. M., Cimiotti, J. P., Flynn, L., Neff, D. F., & Aiken, L. H. (2009). Nursing: A key to patient satisfaction: Patients' reports of satisfaction are higher in hospitals where nurses practice in better work environments or with more favorable patient-to-nurse ratios. *Health Affairs, 28*(Suppl3), w669-w677. https://doi.org/10.1377/hlthaff.28.4.w669

Lake, E. T. (2002). Development of the practice environment scale of the Nursing Work Index. *Research in Nursing & Health, 25*(3), 176-188. https://doi.org/10.1002/nur.10032

Lake, E. T., Sanders, J., Duan, R., Riman, K. A., Schoenauer, K. M., & Chen, Y. (2019). A meta-analysis of the associations between the nurse work environment in hospitals and 4 sets of outcomes. *Medical Care, 57*(5), 353-361. https://doi.org/10.1097/MLR.0000000000001109

Laschinger, H. K. S. (2014). Impact of workplace mistreatment on patient safety risk and nurse-assessed patient outcomes. *Journal of Nursing Administration, 44*(5), 284-290. https://doi.org/10.1097/NNA.0000000000000068

Laschinger, H. K. S., Grau, A. L., Finegan, J., & Wilk, P. (2010). New graduate nurses' experiences of bullying and burnout in hospital settings. *Journal of Advanced Nursing, 66*(12), 2732-2742. https://doi.org/10.1111/j.1365-2648.2010.05420.x

Leong, Y. M. J., & Crossman, J. (2016). Tough love or bullying? New nurse transitional experiences. *Journal of Clinical Nursing, 25*(9-10), 1356-1366. https://doi.org/10.1111/jocn.13225

Li, B., Lingsma, H. F., Steyerberg, E. W., & Lesaffre, E. (2011). Logistic random effects regression models: A comparison of statistical packages for binary and ordinal outcomes. *BMC Medical Research Methodology, 11*(1), 77. https://doi.org/10.1186/1471-2288-11-77

Liu, J., Zheng, J., Liu, K., Liu, X., Wu, Y., Wang, J., & You, L. (2019). Workplace violence against nurses, job satisfaction, burnout, and patient safety in Chinese hospitals. *Nursing Outlook, 67*(5), 558-566. https://doi.org/10.1016/j.outlook.2019.04.006

Logan, T. R., & Malone, D. M. (2018). Nurses' perceptions of teamwork and workplace bullying. *Journal of Nursing Management, 26*(4), 411-419. https://doi.org/10.1111/jonm.12554

Mathisen, G., Øgaard, T., & Einarsen, S. (2012). Individual and situational antecedents of workplace victimization. *International Journal of Manpower, 33*(5), 539-555. https://doi.org/10.1108/01437721211253182

McHugh, M. D., & Stimpfel, A. W. (2012). Nurse reported quality of care: A measure of hospital quality. *Research in Nursing & Health, 35*(6), 566-575. https://doi.org/10.1002/nur.21503

Meissner, J. E. (1986). Nurses: Are we eating our young? *Nursing, 16*(3), 51-53.

National Academy of Medicine. (2019, October). *Consensus study report highlights: Taking action against clinician burnout: A systems approach to professional well-being*. https://nam.edu/wp-content/uploads/2019/10/CR-report-highlights-brief-final.pdf

National Quality Forum. (2004). *National voluntary consensus standards for nursing-sensitive care: An initial performance measure set.* https://www.qualityforum.org/Publications/2004/10/National_Voluntary_Consensus_Standards_for_Nursing-Sensitive_Care__An_Initial_Performance_Measure_Set.aspx

Needleman, J., & Hassmiller, S. (2009). The role of nurses in improving hospital quality and efficiency: Real-world results: Nurses have key roles to play as hospitals continue their quest for higher quality and better patient safety. *Health Affairs, 28*(4), w625-w633. https://doi.org/10.1377/hlthaff.28.4.w625

Nielsen, M. B., & Einarsen, S. (2018). What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. *Aggression and Violent Behavior, 42,* 71-83. https://doi.org/10.1016/j.avb.2018.06.007

Notelaers, G., Einarsen, S., De Witte, H., & Vermunt, J. K. (2006). Measuring exposure to bullying at work: The validity and advantages of the latent class cluster

approach. *Work & Stress, 20*(4), 289-302. https://doi.org/10.1080/02678370601071594

Notelaers, G., Van der Heijden, B., Hoel, H., & Einarsen, S. (2019). Measuring bullying at work with the Short-Negative Acts Questionnaire: Identification of targets and criterion validity. *Work & Stress, 33*(1), 58-75. https://doi.org/10.1080/02678373.2018.1457736

Oh, H., Uhm, D. C., & Yoon, Y. J. (2016). Workplace bullying, job stress, intent to leave, and nurses' perceptions of patient safety in South Korean hospitals. *Nursing Research, 65*(5), 380-388. https://doi.org/10.1097/NNR.0000000000000175

Olsen, E., Bjaalid, G., & Mikkelsen, A. (2017). Work climate and the mediating role of workplace bullying related to job performance, job satisfaction, and work ability: A study among hospital nurses. *Journal of Advanced Nursing, 73*(11), 2709-2719. https://doi.org/10.1111/jan.13337

Park, M., Cho, S. H., & Hong, H. J. (2015). Prevalence and perpetrators of workplace violence by nursing unit and the relationship between violence and the perceived work environment. *Journal of Nursing Scholarship, 47*(1), 87-95. https://doi.org/10.1111/jnu.12112

Patrician, P. A., Shang, J., & Lake, E. T. (2010). Organizational determinants of work outcomes and quality care ratings among Army Medical Department registered nurses. *Research in Nursing & Health, 33*(2), 99-110. https://doi.org/10.1002/nur.20370

Purpora, C., Blegen, M. A., & Stotts, N. A. (2012). Horizontal violence among hospital staff nurses related to oppressed self or oppressed group. *Journal of Professional Nursing*, *28*(5), 306-314. https://doi.org/10.1016/j.profnurs.2012.01.001

Reknes, I., Notelaers, G., Magerøy, N., Pallesen, S., Bjorvatn, B., Moen, B. E., & Einarsen, S. (2017). Aggression from patients or next of kin and exposure to bullying behaviors: A conglomerate experience? *Nursing Research and Practice*, *2017*. https://doi.org/10.1155/2017/1502854

Roberts, S. J. (1983). Oppressed group behavior: Implications for nursing. *Advances in Nursing Science, 5*(4), 21-30.

Rowe, S., Stewart, M. T., Farley, H., & Marchalik, D. (2019). Defending the term "burnout": A useful tool in the quest to ease clinician suffering. *NEJM Catalyst, 5*(4).

Rush, K. L., Adamack, M., Gordon, J., & Janke, R. (2014). New graduate nurse transition programs: Relationships with bullying and access to support. *Contemporary Nurse, 48*(2), 219-228. https://doi.org/10.1080/10376178.2014.11081944

Salyers, M. P., Bonfils, K. A., Luther, L., Firmin, R. L., White, D. A., Adams, E. L., & Rollins, A. L. (2017). The relationship between professional burnout and quality and safety in healthcare: A meta-analysis. *Journal of General Internal Medicine, 32(*4), 475-482. https://doi.org/10.1007/s11606-016-3886-9

Sauer, P. A., & McCoy, T. P. (2017). Nurse bullying: Impact on nurses' health. *Western Journal of Nursing Research, 39*(12), 1533-1546. https://doi.org/10.1177/0193945916681278

Simons, S. R., & Mawn, B. (2010). Bullying in the workplace—a qualitative study of newly licensed registered nurses. *AAOHN Journal, 58*(7), 305-311. https://doi.org/10.1177/216507991005800705

Sloane, D. M., Smith, H. L., McHugh, M. D., & Aiken, L. H. (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, J. G., Morin, K. H., & Lake, E. T. (2018). Association of the nurse work environment with nurse incivility in hospitals. *Journal of nursing management, 26*(2), 219-226. https://doi.org/10.1111/jonm.12537

Sochalski, J. (2004). Is more better? The relationship between nurse staffing and the quality of nursing care in hospitals. *Medical Care*, *42*(2), II67-II73. https://www.jstor.org/stable/pdf/4640726

Sorra J., Gray L., Streagle S., Famolaro, T., Yount, N., & Behm, J. (2016). AHRQ Hospital Survey on Patient Safety Culture: User's Guide. (Prepared by Westat, under Contract No. HHSA290201300003C). AHRQ Publication No. 15-0049-EF (Replaces 04-0041). Agency for Healthcare Research and Quality. January 2016. http://www.ahrq.gov/professionals/quality-patientsafety/patientsafetyculture/hospital/index.html

Sorra, J. S., & Dyer, N. (2010). Multilevel psychometric properties of the AHRQ hospital survey on patient safety culture. *BMC Health Services Research, 10*(1), 199. https://doi.org/10.1186/1472-6963-10-199

Stimpfel, A. W., Djukic, M., Brewer, C. S., & Kovner, C. T. (2019). Common predictors of nurse-reported quality of care and patient safety. *Health Care Management Review, 44*(1), 57-66. https://doi.org/10.1097/HMR.0000000000000155

Swiger, P. A. (2017). *The military nursing practice environment's association with patient outcomes* (Order No. 10287330) [Doctoral dissertation, The University of Alabama at Birmingham]. ProQuest Dissertations and Theses Global.

Swiger, P. A., Patrician, P. A., Miltner, R. S. S., Raju, D., Breckenridge-Sproat, S., & Loan, L. A. (2017). The Practice Environment Scale of the Nursing Work Index: An updated review and recommendations for use. *International Journal of Nursing Studies, 74,* 76-84. https://doi.org/10.1016/j.ijnurstu.2017.06.003

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2,* 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd

The Joint Commission. (2008). *Sentinel event alert (40): Behaviors that undermine a culture of safety.* https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/sea_40pdf.pdf?db=web&hash=D12B14016B1EA82EC1F1395AB6C3B929

The Joint Commission. (2016, June). Bullying has no place in health care [PDF file]. *Quick Safety, 24.* https://www.jointcommission.org/-/media/tjc/documents/newsletters/quick_safety_issue_24_june_2016pdf

Tierney, S., Bivins, R., & Seers, K. (2019). Compassion in nursing: Solution or stereotype? *Nursing Inquiry, 26*(1), 1-6. https://doi.org/10.1111/nin.12271

Trépanier, S. G., Fernet, C., Austin, S., & Boudrias, V. (2016). Work environment antecedents of bullying: A review and integrative model applied to registered nurses. *International Journal of Nursing Studies, 55,* 85-97. https://doi.org/10.1016/j.ijnurstu.2015.10.001

United States Department of Labor, Bureau of Labor Statistics. (2012). *Occupational Outlook Handbook, 2012-13 Edition*. GPO, U.S. Bureau of Labor Statistics. Retrieved from https://www.bls.gov/ooh/healthcare/licensed-practical-and-licensed-vocational-nurses.htm

Walrath, J. M., Dang, D., & Nyberg, D. (2013). An organizational assessment of disruptive clinician behavior: Findings and implications. *Journal of Nursing Care Quality, 28*(2), 110-121. https://doi.org/10.1097/NCQ.0b013e318270d2ba

Wei, H., Sewell, K. A., Woody, G., & Rose, M. A. (2018). The state of the science of nurse work environments in the United States: A systematic review. *International Journal of Nursing Sciences, 5*(3), 287-300. https://doi.org/10.1016/j.ijnss.2018.04.010

Wright, W., & Khatri, N. (2015). Bullying among nursing staff: Relationship with psychological/behavioral responses of nurses and medical errors. *Health Care Management Review, 40*(2), 139-147. https://doi.org/10.1097/HMR.0000000000000015

Yokoyama, M., Suzuki, M., Takai, Y., Igarashi, A., Noguchi-Watanabe, M., & Yamamoto-Mitani, N. (2016). Workplace bullying among nurses and their related factors in Japan: A cross-sectional survey. *Journal of Clinical Nursing, 25*(17-18), 2478-2488. https://doi.org/10.1111/jocn.13270

HOW DOES WORKPLACE BULLYING INFLUENCE NURSES' ABILITIES TO PROVIDE PATIENT CARE? A NURSE PERSPECTIVE

by

COLLEEN V. ANUSIEWICZ, NATALIYA V. IVANKOVA, PAULINE A. SWIGER, GORDON L. GILLESPIE, PENG LI, PATRICIA A. PATRICIAN

Submitted to *Journal of Clinical Nursing*

Format adapted for dissertation

PAPER THREE

HOW DOES WORKPLACE BULLYING INFLUENCE NURSES' ABILITIES TO PROVIDE PATIENT CARE? A NURSE PERSPECTIVE

ABSTRACT

Aims and objectives: To explore how workplace bullying (WPB) influences nurses' abilities to provide patient care.

Background: Nurses' experiences of WPB undermines nursing work environments and potentially threatens their abilities to provide patient care. Although there is a logical link between nurses' experiences of WPB and poor patient care, additional exploration is necessary as current evidence remains underdeveloped and inconclusive.

Design: Qualitative descriptive study.

Methods: Fifteen inpatient staff nurses who have experienced WPB while working in one hospital located in the southern region of the United States participated in individual, semi-structured interviews. Inductive thematic analysis was used to analyze verbatim interview transcripts in NVivo 12 software. The Consolidated Criteria for Reporting Qualitative Research was used to guide the reporting of study findings.

Results: Three themes, and respective subthemes, were generated from data analysis: 1) WPB as part of the nursing work environment, 2) WPB's influence on nurses, and 3) WPB's influence on patient care. Workplace bullying was perceived to be inherent in the unit's nursing work environment; nurses felt that they were targets of WPB because 1) they were new nurses, 2) there was an abuse of power, or 3) the nature of the work occasioned it. Each nurse was mentally and emotionally influenced by their WPB

experience, and although some nurses perceived that WPB did influence their ability to provide patient care, others did not.

Conclusions: Increased focus of organizations on supporting new nurses and managing relational attributes of the nursing work environment are needed to reduce WPB. Nurses in formal and informal positions of power should be educated and held accountable for the behavioral expectations of the organization and their influence in fostering and sustaining a favorable nursing work environment. Providing nurses with an environment free of WPB remains important to supporting their ability to provide patient care.

Relevance to clinical practice: Because the nursing work environment is the context in which nursing processes occur, understanding how nurses perceive the nursing work environment to influence their experiences of WPB may inform the development of organizational-level interventions to reduce the behavior. Furthermore, exploring how nurses' experiences of WPB influences their abilities to provide patient care raises awareness about and further increases our understanding regarding WPB implications.

Key words: Bullying, nurses, patient care, workplace

INTRODUCTION

Workplace bullying (WPB) is conceptually defined as any negative behavior, exhibited by an individual or group of either perceived or actual power, that was repeatedly and persistently directed toward another individual, who had difficulty defending him- or herself against the behavior, for a prolonged time frame (i.e., at least six months) (Anusiewicz et al., 2019; Nielsen & Einarsen, 2018). Despite increased awareness and efforts to reduce the behavior, WPB remains an issue nurses regularly experience (Crawford et al., 2019; Thompson, 2013). Over the past 30 years (Meissner, 1999; Sauer, 2012), research on WPB in the nursing profession has rapidly evolved due to the potential implications for nursing, patient, and health care organizational outcomes. Although WPB has long been understood in terms of oppressed group behavior, this conceptualization fails to acknowledge potential issues in the nursing work environment that may influence why WPB continues to occur (Hutchinson et al., 2006). Described as the organizational characteristics that either "enhance or attenuate a nurse's ability to practice nursing skillfully and deliver high quality care" (Swiger et al., 2017, p. 76), the nursing work environment is the context in which all nursing processes take place (Swiger, 2017). Thus, the nursing work environment has a key role in providing the foundation necessary for positive nurse, patient, and health care organizational outcomes (Aiken et al., 2011; Lake et al., 2019; Laschinger 2014; Wei et al., 2018). However, WPB threatens the favorability of the nursing work environment.

Additionally, with the demand for high-quality, safe patient care, understanding how nurses' experiences of WPB influence nurses' abilities to provide patient care has garnered attention from researchers, nursing and health care leadership, and organizations including The Joint Commission (TJC, 2008; 2016) and the American Nurses Association (2015). Due to the poor nursing outcomes associated with WPB (e.g., poor mental and physical health, job dissatisfaction, turnover, decreased communication among health care workers, altered thinking and concentration) (Hutchinson & Jackson, 2013; Sauer & McCoy, 2017), it follows then that there is a link between nurse-reported WPB and poor patient care (Houck & Colbert, 2017). However, empirical evidence to support this link is limited and remains inconclusive (Houck & Colbert, 2017). Because nurses are at increased risk for experiencing WPB (Gillespie et al., 2017; Purpora et al., 2012) and are valuable informants of health care quality and safety (McHugh & Stimpfel, 2012), obtaining nurses' perspectives is beneficial to further understanding how nurses' experiences of WPB may influence patient care. Therefore, the purpose of this study was to explore how WPB influences nurses' abilities to provide patient care. To provide context, attributes of the nursing work environment were explored to determine how the environment may influence nurses' experiences of WPB. The following research questions guided data collection and analysis: What attributes of the nursing work environment influence nurses' experiences of WPB? How do nurses perceive WPB influences their mental, physical, and emotional well-being? How do nurses perceive experiencing WPB influences their ability to provide patient care?

Conceptual Framework

Donabedian's (1966) structure, process, and outcome framework, which is widely used to inform and evaluate efforts to improve quality of care (Gallagher & Rowell, 2003; Swiger, 2017), guided this study. Donabedian proposed using a triad of categories, which includes structure, process, and outcome, to evaluate health care quality (Ayanian & Markel, 2016; Donabedian, 1966). "Structure" is defined as the settings, provider qualifications, and administrative systems through which patient care occurs; "process" includes the components of patient care delivered, specifically what is actually done in giving and receiving care; and "outcome" focuses on patient recovery, restoration of function, and survival (Ayanian & Markel, 2016). According to Donabedian's (1966) framework, structure influences processes, which influences outcomes. In this study, "structure" was conceptualized as the nursing work environment because it is the context in which all nursing processes occur. Neither "process" nor "outcomes" were directly explored in this study; however, and in line with the framework, it would follow that WPB occurring within the nursing work environment would influence nurses' abilities to provide patient care, which would influence "processes," and in turn, would influence patient "outcomes."

METHODS

Reported here are the findings from the qualitative study strand of a larger concurrent, mixed methods study seeking to explore nurse-reported WPB in the southern region of the United States (U.S.). A qualitative, descriptive approach was chosen because it is appropriate for exploration and involves remaining close to the data with

limited researcher interpretation (Sandelowski, 2000). Thus, the approach captures the perspective of the participant, providing understanding of the meaning the participant gives to a phenomenon or event, such as WPB (Sandelowski, 2000).

Sampling and Recruitment

One large academic medical center located in an urban setting in the southern region of the U.S. was selected for recruitment based on established stakeholder relationships, stakeholder interest in the study, and the research team's access to the nurses working at the hospital. Specific study eligibility criteria included: 1) being a full-time inpatient staff nurse working at the study hospital when the bullying experience occurred, 2) being bullied by another nurse or health care worker at study hospital, and 3) experiencing behaviors that align with the definition of nurse-reported WPB used for this study. Purposive sampling (Bradshaw et al., 2017) was used to recruit nurses who met study criteria and had experienced WPB within the past year. The sample size for this study was based on data saturation (Bradshaw et al., 2017; LoBiondo-Wood & Haber, 2014). Thus, the research team aimed to collect detailed contextual and exhaustive descriptions and participant quotes (i.e., "rich, thick" descriptions) that would provide ample information to answer research questions (Fusch & Ness, 2015; Lincoln & Guba, 1985). Our target sample was 15 to 20 nurses.

Data Collection

Following Institutional Review Board approval, inpatient staff nurses were recruited to participate in individual interviews using a recruitment email disseminated in

November 2019 by the hospital's Director of the Center for Nursing Excellence. Interview data were collected between November 2019 and March 2020. Nurses who were interested in participating in the study were able to reach out to the principal investigator (PI) (CA) for further information regarding the study. The PI screened each nurse to determine if they met study eligibility, and if so, individual interviews were scheduled. Due to the sensitivity of the research topic, importance of maintaining participant confidentiality, and input from stakeholders, individual interviews were determined to be the most appropriate form of qualitative data collection (Mack et al., 2005; Sagoe, 2012). Individual, semi-structured interviews lasting approximately 45 minutes to 1 hour were conducted in-person at the nurse's preferred location, date, and time to reduce nurse participant burden and assure confidentiality. Each nurse was asked for a preferred pseudonym that would be used throughout the interview, analysis, and dissemination of findings. Prior to beginning the interview, each nurse was asked to complete a demographic questionnaire. After interview completion, nurses were compensated with a $25 VISA gift card for their contributions to the study.

Development of the interview questions was informed by the study purpose; research questions; current nursing literature; and Donabedian's (1966) structure, process, outcomes framework. To determine attributes of the nursing work environment that were perceived to influence nurses' experiences of WPB, questions and probes were developed to obtain descriptions of 1) the relationships among nurses and health care workers, and 2) how the nurses felt valued and supported by the hospital and led by their nursing administration, including their nurse manager. A broader question was also developed to determine if there were any additional characteristics of the nurse's unit that

were perceived to create an environment that influenced the nurse's experiences of WPB. Next, because research suggests that patient outcomes are negatively affected by nurses' experiences of WPB due to the personal impacts of WPB on nurses, questions and probes were developed to capture the nurses' WPB experiences and how the experiences influenced the nurses' physical, mental, and emotional being. These questions served to provide the link between nurses' experiences of WPB and if or how their ability to provide patient care was influenced. After discussing how the nurses were personally influenced by their WPB experiences, a broad question was then developed to determine *if* nurse participants perceived WPB to influence their patient care. This question was important to ask first so that the nurse participants could explain their own perception of how WPB influences their ability to provide patient care without the assumption that there is a negative relationship. Then, additional probes were developed to further determine how the quality of care and patient's safety were influenced. The chronological order of the interview questions and probes were guided by the conceptual framework.

Prior to interviews, two pilot interviews were conducted with inpatient staff nurses working at the study hospital to further inform the interview guide. Pilot interview transcripts were reviewed with the expert methodologist (NI) on the study to incorporate appropriate adjustments to the interview guide to ensure the questions and probes would provide "rich, thick" descriptions that would sufficiently address the study purpose. Additionally, members of the research team who provided content expertise (GG, PP, and PS), reviewed the interview questions and probes to further ensure their appropriateness. Table 1 includes a sample of the interview questions and probes.

Table 1

Sample Interview Questions

Workplace bullying as part of the nursing work environment	1. How do you think you are valued as a nurse at the hospital? 2. How would you describe your nurse manager's ability to lead and support the nursing staff? 3. How would you describe the collaboration or relationships between nurses on your unit? 4. What characteristics of your unit or work environment do you perceive to foster workplace bullying?
Workplace bullying's influence on nurses	1. How has/did workplace bullying affect you personally? 2. How has/did workplace bullying affect your mental health? 3. How has/did workplace bullying affect your physical health?
Workplace bullying's influence on patient care	1. How do you think that your experiences of workplace bullying affect/affected your ability to provide patient care? 2. How does workplace bullying influence the quality of care you provide/provided to your patients? Why do you think it does or does not affect the quality of care? 3. How does workplace bullying influence the overall safety of your patients? Why do you think it does or does not affect patient safety? 4. How, if at all, does being bullied distract you from your work? 5. How does being bullied potentially affect your willingness to ask questions about your patients or nursing care tasks? 6. How, if at all, does being bullied affect your ability to think clearly at work?

Data Analysis

Nurses' interviews were audio-recorded and transcribed verbatim by a professional transcription company. Transcripts were verified for accuracy and uploaded for analysis into NVivo 12 software. Data were analyzed iteratively with data collection using an inductive thematic analysis approach consistent with steps outlined by Guest et al. (2012). All analysis was conducted by the PI (CA) with guidance and oversight from

the expert methodologist (NI) and content experts (GG, PP, and PS). First, all transcripts were actively read and verified to facilitate data immersion and familiarity. Second, transcripts were coded line-by-line using the open coding technique to generate initial subthemes. Third, subthemes were further grouped into overarching themes. Finally, the themes and subthemes were presented to the research team (GG, NI, PL, PP, and PS) for further refinement to ensure that the themes and subthemes were informative and representative of the textual data.

Establishing Trustworthiness

Strategies to ensure study rigor followed criteria outlined Lincoln and Guba (1985) (i.e., credibility, dependability, transferability, and confirmability). Member checking of transcripts helped to ensure there was no misinterpretation of what nurse participants shared during their interviews (Maxwell, 2012). To facilitate the member checking process, the study PI developed and provided summaries of each interview to the respective participant for their review. All 15 nurses received an interview summary; six notified the PI that the interview summary accurately reflected their WPB experiences. The remaining 10 nurses did not respond. Researcher bias was identified through reflexive journaling and discussion with the research team, who represented differing professional backgrounds and expertise. Additionally, an audit trail inclusive of all analytic procedures was kept and used to facilitate discussion with the research team (GG, NI, PL, PP, and PS) and expert methodologist (NI). Emergent codes and themes were also regularly discussed with select committee members (PP and NI). Lastly, information regarding the study population has been provided, allowing readers to

determine the extent to which their situation aligns with the research context, and thus, whether the findings can be transferred (Merriam & Tisdell, 2015).

RESULTS

Fifteen nurses who met inclusion criteria were interviewed; the nurse demographics are found in Table 2. Only female nurses participated in this study, and over half (60%) of the nurses held a bachelor's degree. All nurses were working full-time (36 hours/week) and were providing direct patient care when they experienced WPB. Although all nurses were employed at the same large, academic medical center, they represented various units. Most nurses were moderately satisfied with their job but intended to leave within the next 6 to 12 months. Summaries of WPB experiences for each nurse participant are provided in Table 3. Three themes, and related subthemes, emerged from the data analysis: 1) WPB as part of the nursing work environment, 2) WPB's influence on nurses, and 3) WPB's influence on patient care. Table 4 presents the themes, related subthemes, and illustrative nurse quotes.

Table 2

*Demographics and Questionnaire Summary of All Participants (*N = *15)*

Question	*n* (%) or Median (Range)
Gender	15 (100.00)
Female	
Age	34 (22-58)
Race	
White	7 (46.67)
Black or African American	2 (13.33)
American Indian or Alaska Native	1 (6.67)
Asian/Pacific Islander	4 (26.66)
Other	1 (6.67)
Education level	
Associate degree	3 (20.00)
Bachelor's degree	9 (60.00)
Graduate (master, DNP, PhD)	3 (20.00)
Years as an RN	4.5 (<1-36)
Unit type	
Medical	2 (13.33)
Surgical	1 (6.67)
Medical/surgical	4 (26.66)
Intensive care	5 (33.34)
OR/recovery room	1 (6.67)
Psychiatry	2 (13.33)
Shift type	
Day	7 (46.67)
Night	6 (40.00)
Combination	2 (13.33)
Shift length	
12 hours	15 (100.00)
Hours/week	36 (36-40)
Overtime/week	5 (0-24)
Job satisfaction	
Very dissatisfied	3 (20.00)
Moderately dissatisfied	4 (26.66)
Moderately satisfied	7 (46.67)
Very satisfied	1 (6.67)
Intent to leave	
Yes, within the next 6-12 months	10 (66.67)
No plans within the next year	5 (33.33)
Quality of care	
Poor	0 (0.00)
Fair	3 (20.00)
Good	10 (66.67)
Excellent	2 (13.33)
Recommend hospital	
No	1 (6.67)
Yes	14 (93.33)

Table 3

Brief Bullying Descriptions of Nurse Participants

Betty was a new nurse who was bullied primarily by her nurse manager during her orientation period. After requesting an extension to her orientation, Betty noticed she was starting to be mistreated.
Sarah was a new nurse who was bullied by two nurses on her unit. The first nurse was well-known for having a constant attitude and belittling other nurses. The other, a circulating nurse, would ridicule Sarah for differences in approaches to patient care.
Polly was verbally harassed by her nurse manager in a private room on the unit with the door locked. Shortly afterwards, the nurse manager removed Polly as a charge nurse.
April was a new nurse who explained her relationships with the other nurses as "hostile" and said that they would "snap" at her. After confronting her bully about a medication that was left out, the bully said to April, "You better watch your back around here."
Jessica, a new nurse, was bullied by two circulating nurses who were good friends. These nurses were hyper-focused on Jessica's work performance and would purposefully look for something Jessica did wrong and escalate the situation to the nurse manager without discussing them with Jessica first.
Tina was bullied by her preceptor during her orientation and simultaneously undermined by her Assistant Nurse Manager (ANM) and nurse manager. The bullies threatened that if Tina reported the bullying, she would be fired for improper patient documentation, which Tina states is a fabrication of the truth.
Alice was a charge nurse who asked a staff nurse to admit a patient. The staff nurse ignored Alice's request and later reported Alice to the nurse manager, CNO, and HR for embarrassing her. Her claims dismissed, the staff nurse filed a lawsuit against Alice and reported her to the state Board of Nursing.
Melissa was a new nurse. Her first preceptor was disengaged and did not adequately orient her. After advocating for a change in preceptor, Melissa was then bullied by her new preceptor and gossiped about by other nurses on the unit for being behind in her nursing skillsets.
Lee was an ANM who was treated unequally by her new nurse manager. Lee was instructed to do tasks outside of her nursing role (e.g., cleaning bedside commodes) and was repeatedly tricked and wrongly accused of actions she did not do in an attempt to fire her.
Suzanne was an experienced nurse but new to the unit. A clique on the unit would spread gossip and rumors about Suzanne regarding her physical appearance and personal life.
Darcy was a new nurse who quickly learned that if you are new, you must struggle first to earn your rank on the unit. Senior nurses would either not help or begrudgingly help Darcy with patient care. Darcy explained there was no teamwork on the unit.
Rose was a new nurse who was bullied by her ANM and a more senior nurse. The ANM would repeatedly give Rose unfair patient assignments that were unsafe due to the high acuity. Rose described the other nurse as a "blatant" bully, who would "insult" and "intimidate" any new nurse.
Candy was a new nurse who reported being bullied via email and in-person by her nurse manager. The nurse manager would publicly scold and belittle her (and other nurses) for asking questions/for help, creating a culture of fear.
Beth was primarily bullied by an ANM, who was known for making new nurses feel incompetent. For over a year, the ANM would bully Beth through unfair patient assignments every time she came to work. This lasted until Beth could clinically handle the workload and gained seniority status. Now, Beth witnesses the ANM doing the same to other new nurses.
Gwen was a new nurse who reported being bullied by a senior nurse on the unit after a discrepancy with a patient. In addition to gossiping and spreading rumors, the senior nurse would refuse to communicate with Gwen, even regarding patient care. This behavior has lasted for a year despite HR involvement.

Theme 1: Workplace Bullying as Part of the Nursing Work Environment

Workplace bullying was perceived to be inherent in the unit's nursing work environment; nurses felt that they were targets of WPB because 1) they were a new nurse, 2) there was an abuse of power, or 3) the nature of the work occasioned it. All three reasons led to feelings of frustration as the nurses realized WPB was an accepted norm within their work environment. Ultimately, the nurses reasoned that for the bullying to stop, they had to "take it" until they gained more nursing experience, were promoted to a leadership role, or through leaving the unit altogether.

Being a New Nurse

The nurses expressed that being a new nurse in an established nursing work environment was a primary reason they perceived to experience WPB. Being new mainly meant the nurse was new to the nursing profession, but in some cases, it meant being new to the unit. New nurses shared that they were frequently bullied by their preceptors or other nurses with more clinical experience during their orientation period or shortly after orientation completion. Some nurses described their preceptors as disengaged, gossipy, or belittling and explained that the preceptors rushed them when providing care. Others commented that the nurses with more clinical experience would be hyper-focused on their work, intentionally looking to find something wrong to purposefully get them in trouble. The nurses also described situations of feeling hazed or drowning in their work without receiving help, even upon request. Betty shared, *"I was bullied every day because the nurses saw me drown in my work as a new nurse [and] chose to ignore me and gossip rather than help me."* Although age discrimination was perceived to cause

WPB in some of the nurses' experiences, the nurses primarily attributed the bullying to being new to the profession, having to earn the respect from the more experienced nurses. Darcy explained, *"[It's] the experienced versus the inexperienced nurse… it's almost a ranking atmosphere…[bullying] is like a part of the workplace, and you just gotta get your rank. You'll be here for a couple a years, and then you'll be all right kinda thing."* Essentially, the nurses expressed needing to earn their place on the unit, which was achieved primarily through struggling to perform patient care. The struggling often occurred until the nurses either gained more experience themselves or were promoted to a leadership role on the unit. Rose, who was bullied by receiving unfair patient assignments explained, *"After a while with the assistant nurse manager [the bully], that kind of died off because after I had gained enough experience—you could give me whatever [patient assignment], and it's fine at this point, but as a new nurse, that was really horrible."* The nurses expressed frustration with the process of having to earn respect through struggling with patient care or workload and talked about the importance of teamwork in nursing and the desire for their preceptors or the more experienced nurses to remember what it was like to be new to the profession: *"I feel like in nursing, if you don't have teamwork, there's no nursing. You can't really work as a nurse if you don't have a good team to support you"* (Sarah).

Abuse of Power

The nurses noted that the bully was able to acquire and subsequently abuse power that was obtained either through their formal leadership role on the unit (e.g., nurse manager, assistant nurse manager [ANM], or charge nurse), informally based on the

years of nursing experience they had, or by being a "favorite." Over half of the nurses identified the bully as a nurse in a leadership role. Being in leadership was perceived by the nurses to create feelings of entitlement, which resulted in "power trips." Polly shared, *"Nursing leaders can become power hungry [and] let the position justify negative behavior."* However, if the bully did not hold a formal leadership role, they typically had more nursing experience. The more years of nursing experience the bully had, the more clinical expertise they gained and the greater were their informal power and authority on the unit. Jessica explained, *"They know they are valued employees due to their experience so they aren't necessarily worried about any real repercussions from the nurse managers, should the bullied nurse report it."*

Lastly, the nurses explained that if the bully was not in a leadership role themselves or had more nursing experience, they were often favored by nursing management. Favoritism allowed for the bullying behavior to remain unchallenged on units and created a culture of acceptance within the nursing work environment. Rose shared, *"My preceptor told me, 'Don't bother saying anything because she's [the bully] a pet. She's a favorite, and nothing will get done. It'll just make you look bad, so just don't say anything. Just suck it up and take it.'"* Indeed, "taking it" was how Rose and many of the new nurses decided to handle the bullying, as they either waited until they gained more nursing experience or obtained a leadership role themselves, or in some situations, transferred units in hopes that the bullying would not occur in the new unit.

Nature of the Work

The nurses expressed that the high stress and demanding nature of nursing work influenced their experiences of WPB. Stress typically resulted from the *"busy flow on the unit"* (Tina) or the patient population. The stress, demands, and patient needs increased frustration among nurses and other members of the health care team. Sarah shared, *"I believe that the type of work that we [nurses] do is a very high stress job. The stakes are very high and there is a lot of responsibilities that are expected of us. I believe that that in itself is what causes so much stress that it develops in[to] a pattern of bullying."* Other nurses discussed the emotional and physical demands of their patients and trying to meet their patients' needs while simultaneously suppressing their own. After putting aside their own needs over time, however, nurses began to experience frustration and emotional and physical exhaustion, heightening the tensions among the nurses and health care team, often resulting in WPB. *"We have a very difficult patient population, and because of that, you never know what you're gonna come in and have, and it's stressful. It's just there is a lot of stress" (*Katie). Although the nurses enjoyed their work and caring for patients, they discussed how the stress of their "specialized" and "very difficult" patient population (Beth) was worsened by the fast pace and high demands of their workload and environment.

Theme 2: Workplace Bullying's Influence on Nurses

Each nurse discussed how experiencing WPB influenced their mental and emotional well-being (i.e., self-doubt, feelings of defenselessness, and emotional distress); however, none felt the bullying influenced them physically. How the bullying

influenced the nurses depended largely on the repetitiveness of the behavior and the lack of support they perceived to have on their unit to successfully stand up for themselves.

Self-doubt

Self-doubt was commonly discussed by the nurses as a result of experiencing WPB. Particularly, self-doubt was expressed by new nurses who felt ridiculed by their preceptors for being too slow or as a result of the bully being hyper-focused on the patient care provided by the nurse. The continued criticism, harsh comments regarding their work performance, and other bullying tactics decreased the nurses' self-confidence, leaving them with feelings of incompetence, which they already struggled with because they were new to the profession. In some situations, the WPB led nurses to question their self-worth: *"When you have somebody's life in your hands and you're made to feel incompetent and not good enough to be there, I think that probably is one of worst feelings in the world"* (Beth). Ultimately, the self-doubt led nurses to question their nursing abilities in providing patient care or their choice of nursing as a career. Betty shared, *"It made me doubt myself. It made me wonder if I was really in the right field… made me feel like I wasn't good enough. I wasn't meant to be a nurse. I was stupid."*

Feelings of Defenselessness

For various reasons, nurses expressed feelings of defenselessness while experiencing WPB. Nurses knew that their bullies were experienced nurses who brought much clinical expertise to the unit and often held leadership roles because of how long they had been working as nurses on the unit. In several situations it was explained how

everyone on the unit knew who the "bully" or "bullies" were and who the "target" was. However, due to the bullies' position on the unit, the behaviors remained unopposed. This allowed for a culture of silence or acceptance to be formed on units. Jessica stated, *"They're [the bullies are] so highly regarded on the unit. They're very experienced, and they are great nurses. I will say that. They both hold charge nurse positions or ANM positions so they're my higher ups. I feel like I don't really have a say in this kinda stuff."* Nurses also mentioned that because the bully and the other nurses working on the unit had previously established relationships and they were the new nurse, they felt they lacked the necessary support to effectively defend themselves. Nurses perceived that too much was against them to successfully contest their situation. Sarah said, *"I felt like everybody knew each other already. They've been working with each other for years and I'm this new person."* The feelings of defenseless caused many nurses to leave their current nursing job because they felt leaving was the only way to escape the bullying.

Emotional Distress

Although the nurses did not identify any physical impacts that resulted from experiencing WPB, they did express a wide variety of mental and emotional health effects that influenced their well-being. These effects ranged from *"crying quite a bit"* (Suzanne), to varying levels of anxiety, to symptoms of post-traumatic stress disorder and even thoughts of death. The extent to which nurses were affected mentally or emotionally depended on a few aspects of their situation, including the frequency of the bullying and whether the nurse had any additional support on the unit. Jessica stated, *"It hasn't*

affected me so much that I feel out of sorts or that I can't control myself in the environment. I have instances where I've just left work and cried in my car."

As the bullying continued, nurses explained how they noticed they were not themselves anymore. Sometimes, these feelings led nurses to seek clinical help and support, or at least consider it:

> *I had gone through the first 25 years of my life never having an issue, high school, college, no issue. Then I get up here for less than a year, and I'm wigging out…I actually did end up going— I just went to an urgent care because I was sick of feeling that way. I was sick of feeling down and freaking out and worrying all the time. They did put me on Zoloft for a little while.* (April)

Nurses noted that it was not so much the bullying behaviors they experienced that wore them down mentally or emotionally, but rather the repetitiveness of the bullying experiences. There was a difference between experiencing a bullying behavior every now and then versus every time the nurse came to work. Lee explained, *"When you constantly deal with little stuff like that every day, you start to get anxious about goin' to work because you don't know who gonna come at you that day."* For most of the nurses, every day they worked, they were bullied to some degree. The consistency of the bullying behaviors eventually caused nurses to feel, as Alice described, *"emotionally wiped."*

Theme 3: Workplace Bullying's Influence on Patient Care

The nurses were divided on whether they perceived experiencing WPB to influence their ability to provide patient care. While several nurses expressed that their patients were the priority, others could not deny that, because the bullying influenced

them personally, created distraction, or decreased their willingness to ask questions or for help, their ability to provide patient care was subsequently influenced negatively. These nurses did not want their patient care to be impacted but they could not keep the bullying experiences from interfering with how they provided care.

My Patient Is the Priority

Several nurses declared that patient care came first; this was the one thing these nurses strived to protect. Although the nurses did not hide how experiencing WPB influenced them personally, whether through self-doubt, feelings of defenselessness, or emotional distress, several were adamant that patient care was their highest priority. The nurses described pushing aside their feelings and what was occurring on the unit to ensure their patient was not impacted negatively. Patient care was important to the nurses, who felt a duty to provide that care as best they could: *"Our patients are our focus…I think my focus and my heart is not to—my intentions are never to harm patients, even though my emotions are hurt. I couldn't do that"* (Polly).

However, the nurses expressed that although they would not allow their WPB experiences to impact their patient care, they were more likely to avoid asking the bully questions regarding patient care or for help due to frequent pushback (i.e., being mocked for asking a stupid question, eye rolling, sighing). The nurses acknowledged that they see how this could hinder patient care but explained developing relationships with other nurses on the unit who they felt comfortable asking questions or for help. The nurses' strong resolve to do what was right by the patient ultimately prevailed as they pushed

aside their own feelings and frustrations to do what they needed to appropriately care for their patients. Darcy shared:

> *I just feel like I'm looked at differently and that if I ask for help, it's like, "Oh, you should know that already, and you don't, and that's a big deal." You gotta learn. You don't learn unless you ask. It's made me more timid to ask for help, and I'm very selective on who I do ask for help. I know that sounds like a huge safety issue for patients, but I make sure that I'm asking someone I know that knows their stuff and will come and help me.*

Like Darcy, many nurses had a very practical attitude when discussing how they addressed WPB and patient care. The nurses were dogged in ensuring that patients received the care they needed, even if it meant having to be uncomfortable so they could ask the bully their question or for help. Despite their resolve, the nurses did not conceal that it was difficult to face their bully as it often caused undue stress and anxiety. Yet as patient advocates, the nurses were determined to take the actions necessary to prioritize the patient and their care.

Bullying Influences Patient Care

Although many nurses were resolute that their patients were the priority, others expressed that experiencing WPB did negatively affect their ability to provide patient care, whether it be the quality of care or in some cases, the patient's safety. These nurses expressed that the bullying distracted them, which consequently interfered with their patient care. For example, April shared, *"Overall, the patient care did go down with me because I was constantly nervous on the job. I didn't need to be nervous because of the*

people I worked with and how they treated me 'cause I was already nervous enough being a new nurse." Ultimately, the nurses felt they could not sufficiently deliver the care they desired to provide because of what was occurring outside of the patient's room and the varying ways the bullying influenced them personally or their work performance. Several nurses were keenly aware of how they were not able to provide the care they knew they could provide had they not been dealing with WPB. Beth explained:

> *I feel like me personally, I give the best care to my patients when I'm calm and my head isn't worried about what is gonna happen with this person [the bully]…My dad used to come home from school and his dad would spank him and then ask him what he did wrong. That's what this is like. "I know I've done somethin' wrong, and I know I'm gonna get in trouble for it," so your mind isn't there focused on the patient and what they need. Patients can feel that disconnect.*

Like others, Melissa felt her decreased willingness to ask questions regarding patient care was the main reason her patient care was negatively influenced: *"My preceptor, she literally told me, 'There is a such thing as asking dumb questions,' 'cause I would ask her a lot of questions, and she told me that, and I was like—started keeping my mouth shut after that."*

How patient care was influenced, in part, depended on the type of bullying the nurses experienced. For example, Rose explained that when she started her first nursing job, she was bullied through unmanageable workloads, i.e., patient assignments; she received the highest acuity patients every time she worked with one particular ANM, who was in charge of patient assignments. This ultimately influenced her ability to provide good patient care: *"As a brand-new nurse, given the kind of patient load that I was*

expected to care for from this particular person, that absolutely affected the quality of care…I knew that when I showed up and she was there, I knew I'd be getting them both, which was not safe because of the acuity of it" (Rose).

Interestingly, some nurses were more apt to allow the quality of their care to diminish as a result of experiencing WPB rather than allowing the safety of their patients to be compromised. To the nurses, quality of care encompassed being there for the patient or having the ability to spend time with them. Nurses explained that although quality of care is an important aspect of caring for a patient, it was not as crucial as the patient's safety:

> *If I'm just trying to hold it together, and I can't ask a question, then I felt like there were times when I wasn't completely sure about what I was doing, and I was afraid to ask; although, when it comes to patient safety, then I'm pretty much like I will take the risk of looking stupid in asking a question versus hurting a patient."* (Candy)

Additionally, some new nurses were told they were too slow or could not be on the unit after a certain time and therefore needed to hurry up and finish. This caused the nurses to feel rushed while at work, which negatively influenced the patient's safety and quality of care. Tina shared, *"I don't stay in the room because I hear her [preceptor] saying you're just too slow. I do a real quick assessment. Yeah. I'll probably miss something because I'm going too fast because I don't want anybody to think I'm too slow."* The new nurses were frustrated because they wanted to learn and perform the patient care tasks correctly but felt they could not do so because of the reprimands by their bullies who were their preceptors or nurse managers.

Table 4

Results of Data Analysis: Qualitative Themes, Subthemes, and Illustrative Quotes

Themes	Subthemes	Illustrative Quotes
WPB as part of the nursing work environment	*Being a new nurse*	• "It was very civil, but it was let's just let our young person drown over here because she's gotta figure it out on her own. It's not supposed to be that way. You're supposed to work together as a group to build that nurse's confidence and also provide good patient care." **(April)** • "I have heard of instances where they have targeted one or two other people, but I think that once they see something that you do wrong, the kinda just keep tabs on you. Then it's the same people that they keep writing [you] up essentially, and I am unfortunately one of those people." **(Sarah)**
	Abuse of power	• "I think the manager had a soft spot for the two people who were the main bullies." **(Rose)** • "I think sometimes who you know might influence what position you get or what behavior is excused." **(Polly)**
	Nature of the work	• "I believe that the type of work that we do is a very high stress job. The stakes are very high and there is a lot of responsibilities that are expected of us. I believe that that in itself is what causes so much stress that it develops in a pattern of bullying." **(Sarah)** • "I think it's just the demands, the emotional and physical and mental demands that nurses face because, physically, you're on your feet for 12 hours a day, pretty much, and there were times I wasn't even able to go to the bathroom, let alone eat, but we're expected to know a whole lot and not make mistakes. Then, like I said, the emotional thing. You can get attached to a patient, and something happens with them, or you have a patient that just treats you like crap, and you're supposed to just take it…It's a hard profession. I love it still, but it's a hard profession." **(Candy)**

WPB's influence on nurses	*Self-doubt*	• "I didn't even have a lot of direct contact with her, but it was still enough. She would make just nurses feel very inadequate, like during report, like they didn't do their job or nurses would be—so many of my coworkers on nights, they would end up crying during report. Just make you feel like you didn't do your job." **(Suzanne)** • "Now, it just makes me so mad because once you develop as a nurse and you understand all the roles that you play and the importance of being able to trust your coworkers, being able to trust your higher ups, the fact that there is a wedge in that and we can't run like a well-oiled machine, and you've got nurses doubting themselves—I feel like 9 times out of 10, if you're a nurse, it's 'cause you were called to be a nurse. To have somebody doubt the calling that God's put on your life is extremely infuriating to me. The fact that we feel like we can't do anything about it makes it all the worse." **(Beth)**
	Feelings of defenselessness	• "I felt like I was in a hopeless, helpless position." **(Polly)** • "There's actually only two people that I've had problems with. Sometimes that's all you need, really. One person's a lot sometimes." **(Sarah)**
	Emotional distress	• "I felt like I was an outsider, and no one liked me, and so no one really cared if I was hurting, and no one really cared about me." **(Betty)** • "Lack of confidence and I was just crying all the time at home, and I really felt like there was somethin' wrong with me. I wasn't a good nurse. I wasn't smart." **(Melissa)**
WPB's influence on patient care	*My patient is the priority*	• "I don't think it did affect me. I'm focused when I'm doing patient care. I don't think that really affected me." **(Alice)** • "I still do everything I can for my patients, regardless of what anyone thinks. To me, nursing, it's about having the team and in the end, it's really about the patient. For me, my patients are everything. If I have a patient, I'm gonna do my best to make them comfortable, and happy, and just in no pain

	and just try to make their experience as pleasant as possible. I don't care what anyone else thinks." **(Sarah)**
Bullying influences patient care	• "There's been several times, literally several times, that we've had to do trend trackers because of issues, safety issues, that have happened with nurses and patients because the nurse is scared to go and get help." **(Beth)** • "I think that the fact that she won't communicate with me or give me shift report or listen to my shift report…that's the problem." **(Gwen)**

DISCUSSION

Using Donabedian's (1966) structure, process, and outcome framework as guidance, the purpose of this study was to explore how nurse-reported WPB influences nurses' abilities to provide patient care. Drawing on the perspectives provided by nurses during the interviews, the nurses perceived their experiences of WPB to occur in their nursing work environment because they were new nurses, there was an abuse of power, and due to the demanding, stressful nature of the work of nursing. The new nurses perceived that they were more susceptible to being bullied because they had lower levels of established organizational support and there was a lack of appropriate leadership and management to help mitigate their situations. Existing literature states that new nurses are especially vulnerable to experiencing WPB (Beecroft et al., 2008; Sauer, 2012) due to their more junior status within the organizational hierarchy (Rush et al., 2014). The hierarchy in health care has been identified as a primary reason WPB occurs in nursing work environments as it creates power differentials among health care workers, which if left unchecked, as was commonly experienced by the nurses in this study, can lead to

opportunities for an abuse of power, and subsequently, increases the likelihood for WPB to occur. In addition to the hierarchical structure, WPB often occurs due to the complex and demanding nature of health care work. This finding is in line with the work environment hypothesis and Job Demands-Resources model (Bakker & Demerouti, 2007), which both underscore that the characteristics of jobs and work environments are important determinants in workers' health, well-being, and attitudes toward their work (Broeck et al., 2011; Hauge et al., 2007). Stressful and chaotic work environments or jobs that are characterized by high demands (e.g., workload and role conflict) and a lack of job resources (e.g., social support and work autonomy) can give rise to behaviors such as WPB.

According to Donabedian's (1966) framework, good structure should promote good processes, which should promote good outcomes. Workplace bullying occurring within the nursing work environment jeopardizes this flow and hinders health care quality. Although the findings from this study are not generalizable, they indicate that the orientation period and role of nursing leaders and nurses with more experience can be relational attributes of the nursing work environment that influence nurses' experiences of WPB. Therefore, it is important to develop organizational-level strategies that provide support to new nurses and also educate preceptors, nurses in leadership roles, and nurses with more experience regarding the influence they have in creating and sustaining a favorable nursing work environment. These efforts could improve the structure of health care organizations which in turn can improve subsequent processes and outcomes.

The influence WPB had on nurses' abilities to provide patient care was perceived differently among the nurses who participated in this study. By some, WPB was thought

to influence patient care through its negative effects on nurses' mental and emotional well-being (i.e., self-doubt, feelings of defenselessness, and emotional distress) or through creating distractions while at work and decreasing the nurses' willingness to ask questions or for help regarding patient care. Yet although several nurses perceived their WPB experiences to negatively influence their ability to provide patient care, others expressed that patients were their highest priority, and therefore, perceived no influence. This finding contradicts most research in this area where the consensus is that nurses' experiences of WPB negatively influences patient outcomes and/or patient care (Houck & Colbert, 2017).

Differing bullying severities and duration of exposure, perpetrators, organizational support levels, and relational aspects of the nurses' bullying narratives should be considered as likely influencers of nurses' WPB experiences and how WPB may influence patient care. Additionally, perhaps the divergent perceptions among nurses relate to individual factors including levels of resiliency, emotional intelligence, or self-efficacy, which were not explored in the interviews. These factors have been empirically shown to have a mediating role in the relationship between WPB and an individual's health (Anasori et al., 2020; Fida et al., 2018; Hutchinson & Hurley, 2013; Meseguer-de-Pedro et al., 2019). Thus, a nurse's ability to provide patient care may not be influenced despite experiencing WPB due to such individual factors. Based on the findings from this study, the influence of WPB on nurses' abilities to provide patient care may not be as straightforward as generally understood.

Limitations

This study has several limitations. First, according to the definition of WPB, the bullying behaviors must typically occur for at least six months (Nielsen, 2009). However, not all nurses in this study experienced WPB for a full six months. The time frame of bullying exposure remains a debate among researchers (Nielsen, 2009). Further, although many nurses were currently experiencing WPB at the time of the interview, a few had previously experienced WPB and were now removed from the situation. This may introduce recall bias due to memory disintegration (Schat et al., 2006). Second, this study only considered the perspectives from 15 nurses working in one hospital located in the southern region of the U.S. Therefore, and in line with qualitative research, the findings from this study cannot be generalized to other populations. Additionally, not exploring the perspectives of the patients that these nurses cared for potentially limits a more comprehensive understanding of how nurses' experiences of WPB influences their ability to provide patient care from the patient's perspective. However, obtaining the patient's perspective was not the aim of this study. Last, due to the nature of qualitative research, there is a potential for bias in the qualitative results interpretation (Merriam & Tisdell, 2015); however, the descriptive research design used involves remaining close to the data and emphasizes minimal levels of interpretation.

Future Research

Based on findings from this study, future research should be conducted to further determine attributes of the nursing work environment that may influence nurses' experiences of WPB. Additionally, because some nurses in this study did not perceive

WPB to influence their ability to provide patient care, more research is needed to further understand the influence of WPB on patient care. Research exploring individual nurse factors (e.g., resiliency, emotional intelligence, or self-efficacy) may provide explanations for why there was a divide in perception for how WPB influences nurses' abilities to provide patient care.

Relevance to Clinical Practice

Nurses continue to experience WPB in health care organizations (Crawford et al., 2019). Through obtaining nurses' perspectives, the findings from this study suggest the need for health care organizations and nursing leaders to place increasing focus on relational attributes of the nursing work environment to reduce WPB behaviors. Additionally, it is important to educate nurses with formal or informal power, whether through their nursing role (i.e., preceptors, charge nurses, ANMs, nurse managers) or more years of experience, about the behavioral expectations of the organization and the influence they have in fostering and sustaining a favorable nursing work environment. Further, although continued exploration of how nurses' experiences of WPB influences their ability to provide patient care is necessary, the findings provide additional understanding of the potentially far-reaching implications nurse-reported WPB has on patient care and patient outcomes.

CONCLUSIONS

This qualitative study explored how nurses' experiences of WPB, occurring within the nursing work environment, may influence their abilities to provide patient

care. The nurses perceived WPB as an inherent characteristic of the nursing work environment because they were targets of bullying for reasons they could not readily change (i.e., being a new nurse, an abuse of power by formal and informal nursing leaders, or due to the nature of the work). Although several nurses perceived WPB did negatively influence their abilities to provide patient care, others, and in contrast to what is widely understood, did not, primarily because nurses tended to place the patients' well-being above their own.

What does this paper contribute to the wider global clinical community?

- Organizational interventions to decrease the prevalence of nurses experiencing WPB should be acutely focused on educating nursing leaders (i.e., preceptors, charge nurses, ANMs, nurse managers) and nurses with more experience about behavioral expectations and their influential role in creating and sustaining a culture of safety within the nursing work environment.
- The interviews with nurses provide differing perspectives for how WPB influences nurses' abilities to provide patient care, underscoring the desire and commitment nurses have to providing high-quality, safe patient care.

References

Aiken, L. H., Sloane, D. M., Clarke, S., Poghosyan, L., Cho, E., You, L., Finlayson, M., Kanai-Pak, M., & Aungsuroch, Y. (2011). Importance of work environments on hospital outcomes in nine countries. *International Journal for Quality in Health Care, 23*(4), 357-364. https://doi.org/10.1093/intqhc/mzr022

American Nurses Association. (2015). *American Nurses Association position statement on incivility, bullying, and workplace violence*. https://www.nursingworld.org/~49d6e3/globalassets/practiceandpolicy/nursing-excellence/incivility-bullying-and-workplace-violence--ana-position-statement.pdf

Anasori, E., Bayighomog, S. W., & Tanova, C. (2020). Workplace bullying, psychological distress, resilience, mindfulness, and emotional exhaustion. *The Service Industries Journal, 40*(1-2), 65-89. https://doi.org/10.1080/02642069.2019.1589456

Anusiewicz, C. V., Shirey, M. R., & Patrician, P. A. (2019). Workplace bullying and newly licensed registered nurses: An evolutionary concept analysis. *Workplace Health & Safety*, *67*(5), 250-261. https://doi.org/10.1177/2165079919827046

Ayanian, J. Z., & Markel, H. (2016). Donabedian's lasting framework for health care quality. *The New England Journal of Medicine, 375*(3), 205. https://doi.org/10.1056/NEJMp1605101

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309-328. https://doi.org/10.1108/02683940710733115

Beecroft, P. C., Dorey, F., & Wenten, M. (2008). Turnover intention in new graduate nurses: A multivariate analysis. *Journal of Advanced Nursing, 62*(1), 41–52. https://doi.org/10.1111/j.1365-2648.2007.04570.x

Bradshaw, C., Atkinson, S., & Doody, O. (2017). Employing a qualitative description approach in health care research. *Global Qualitative Nursing Research, 4*, 1-8. https://doi.org/10.1177/2333393617742282

Broeck, A. D., Baillien, E., & Witte, H. D. (2011). Workplace bullying: A perspective from the Job Demands-Resources model. *SA Journal of Industrial Psychology, 37*(2), 40-51. https://doi.org/10.4102/sajip.v37i2.879

Crawford, C. L., Chu, F., Judson, L. H., Cuenca, E., Jadalla, A. A., Tze-Polo, L., Kawar, L. N., Runnels, C., & Garvida, R. (2019). Nurse-to-nurse incivility, hostility, and workplace violence: A GPS for nurse leaders. *Nursing Administration Quarterly, 43*(2), 138-156. https://doi.org/10.1097/NAQ.0000000000000338

Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Quarterly, 44*(3), 166-203. https://doi.org/10.1111/j.1468-0009.2005.00397.x

Ferris, P. A. (2009). The role of the consulting psychologist in the prevention, detection, and correction of bullying and mobbing in the workplace. *Consulting Psychology Journal: Practice and Research, 61*(3), 169. https://doi.org/10.1037/a0016783

Fida, R., Laschinger, H. K. S., & Leiter, M. P. (2018). The protective role of self-efficacy against workplace incivility and burnout in nursing: A time-lagged study. *Health Care Management Review, 43*(1), 21-29. https://doi.org/10.1097/HMR.0000000000000126

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report, 20*(9), 1408-1416.

Gallagher, R. M., & Rowell, P. A. (2003). Claiming the future of nursing through nursing-sensitive quality indicators. *Nursing Administration Quarterly, 27*(4), 273-284. https://doi.org/10.1097/00006216-200310000-00004

Gillespie, G. L., Grubb, P. L., Brown, K., Boesch, M. C., & Ulrich, D. (2017). "Nurses Eat Their Young": A novel bullying educational program for student nurses. *Journal of Nursing Education and Practice*, *7*(7), 11-21. https://doi.org/10.5430/jnep.v7n7P11

Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis.* Sage.

Hauge, L. J., Skogstad, A., & Einarsen, S. (2007). Relationships between stressful work environments and bullying: Results of a large representative study. *Work & Stress, 21*(3), 220-242. https://doi.org/10.1080/02678370701705810

Houck, N. M., & Colbert, A. M. (2017). Patient safety and workplace bullying: An integrative review. *Journal of Nursing Care Quality*, *32*(2), 164-171. https://doi.org/10.1097/NCQ.0000000000000209

Hutchinson, M., & Hurley, J. (2013). Exploring leadership capability and emotional intelligence as moderators of workplace bullying. *Journal of Nursing Management, 21*(3), 553-562. https://doi.org/10.1111/j.1365-2834.2012.01372.x

Hutchinson, M., & Jackson, D. (2013). Transformational leadership in nursing: Towards a more critical interpretation. *Nursing Inquiry*, *20*(1), 11-22. https://doi.org/10.1111/nin.12006

Hutchinson, M., Vickers, M., Jackson, D., & Wilkes, L. (2006). Workplace bullying in nursing: Towards a more critical organizational perspective. *Nursing Inquiry, 13*(2), 118-126. https://doi.org/10.1111/j.1440-1800.2006.00314.x

Lake, E. T., Sanders, J., Duan, R., Riman, K. A., Schoenauer, K. M., & Chen, Y. (2019). A meta-analysis of the associations between the nurse work environment in hospitals and 4 sets of outcomes. *Medical Care, 57*(5), 353-361. https://doi.org/10.1097/MLR.0000000000001109

Laschinger, H. K. S. (2014). Impact of workplace mistreatment on patient safety risk and nurse-assessed patient outcomes. *The Journal of Nursing Administration, 44*(5), 284-290. https://doi.org/10.1097/NNA.0000000000000068

Lincoln, Y., & Guba, E. G. (1985). *Naturalistic inquiry.* Sage.

LoBiondo-Wood, G., & Haber, J. (2014). *Nursing research: Methods and critical appraisal for evidence-based practice* (8th ed.). Mosby.

Mack, N., Woodsong, C. M., MacQueen, K. M., Guest, G., & Namey, E. (2005). *Qualitative research methods: A data collector's field guide.* Family Health International.

Maxwell, J. A. (2012). *Qualitative research design: An interactive approach* (Vol. 41). Sage publications.

McHugh, M. D., & Stimpfel, A. W. (2012). Nurse reported quality of care: A measure of hospital quality. *Research in Nursing & Health, 35*(6), 566-575. https://doi.org/10.1002/nur.21503

Meissner, J. E. (1999). Nurses: Are we still eating our young? *Nursing, 29*(2), 42-44.

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.

Meseguer-de-Pedro, M., García-Izquierdo, M., Fernández-Valera, M. M., & Soler-Sánchez, M. I. (2019). The role of resilience between workplace bullying and health: A mediational analysis. *Journal of Work and Organizational Psychology, 35*(3), 177-182. https://doi.org/10.5093/jwop2019a16

Nielsen, M. B. (2009). *Methodological issues in research on workplace bullying* [Unpublished doctoral dissertation]. University of Bergen.

Nielsen, M. B., & Einarsen, S. V. (2018). What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. *Aggression and Violent Behavior*, *42*, 71-83. https://doi.org/10.1016/j.avb.2018.06.007

Purpora, C., Blegen, M. A., & Stotts, N. A. (2012). Horizontal violence among hospital staff nurses related to oppressed self or oppressed group. *Journal of Professional Nursing*, *28*(5), 306-314. https://doi.org/10.1016/j.profnurs.2012.01.001

Rush, K. L., Adamack, M., Gordon, J., & Janke, R. (2014). New graduate nurse transition programs: Relationships with bullying and access to support. *Contemporary Nurse, 48*(2), 219-228. https://doi.org/10.1080/10376178.2014.11081944

Sagoe, D. (2012). Precincts and prospects in the use of focus groups in social and behavioral science research. *Qualitative Report, 17*(15), 1-16.

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

Sauer, P. (2012). Do nurses eat their young? Truth and consequences. *Journal of Emergency Nursing, 38*(1), 43-46. https://doi.org/10.1016/j.jen.2011.08.012

Sauer, P. A., & McCoy, T. P. (2017). Nurse bullying: Impact on nurses' health. *Western Journal of Nursing Research, 39*(12), 1533-1546. https://doi.org/10.1177/0193945916681278

Schat, A. C., Frone, M. R., & Kelloway, E. K. (2006). Prevalence of workplace aggression in the US workforce: Findings from a national study. In E. K. Kelloway, J. Barling, & J. J. Hurrell (Eds.), *Handbook of workplace violence* (pp. 47-89). Sage. https://doi.org/10.4135/9781412976947.n4

Swiger, P. A. (2017). *The military nursing practice environment's association with patient outcomes* [Doctoral dissertation, The University of Alabama at Birmingham]. ProQuest Dissertations and Theses Global.

Swiger, P. A., Patrician, P. A., Miltner, R. S. S., Raju, D., Breckenridge-Sproat, S., & Loan, L. A. (2017). The Practice Environment Scale of the Nursing Work Index: An updated review and recommendations for use. *International Journal of Nursing Studies*, *74*, 76-84. https://doi.org/10.1016/j.ijnurstu.2017.06.003

The Joint Commission. (2008). *Sentinel event alert (40): Behaviors that undermine a culture of safety.* https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/sea_40pdf.pdf?db=web&hash=D12B14016B1EA82EC1F1395AB6C3B929

The Joint Commission. (2016, June). Bullying has no place in health care [PDF file]. *Quick Safety, 24.* https://www.jointcommission.org/-/media/tjc/documents/newsletters/quick_safety_issue_24_june_2016pdf.pdf

Thompson, R. (2013). Healthy work environments: Strategies for eliminating nurse-to-nurse bullying. *MEDSURG Nursing, 22*(2), 1-2.

Wei, H., Sewell, K. A., Woody, G., & Rose, M. A. (2018). The state of the science of nurse work environments in the United States: A systematic review. *International Journal of Nursing Sciences, 5*(3), 287-300. https://doi.org/10.1016/j.ijnss.2018.04.010

CHAPTER 5

DISCUSSION

The purpose of this dissertation was to explore the nursing work environment and patient outcomes (i.e., nurse-reported quality of care and patient safety grade) associated with nurse-reported workplace bullying (WPB). Using a concurrent Quan + Qual mixed methods research design, this goal was accomplished in a stepwise manner, resulting in the production of three papers. Paper One described the psychometric properties of the Short Negative Acts Questionnaire (SNAQ), the instrument used to measure WPB in this dissertation, and provided preliminary analysis needed to address the aims of the quantitative study. Papers Two and Three reported on the quantitative and qualitative study strands and results, respectively. The concurrent Quan + Qual design allowed for the integration of results generated from the quantitative (Paper Two) and qualitative (Paper Three) study strands to produce substantiated overall findings through obtaining different but complementary data on nurse-reported WPB (Creswell, 2003; Schoonenboom & Johnson, 2017). The objective of this final chapter is to present an overview of the study findings from each paper, provide an integration of findings from the quantitative and qualitative study strands, and generate overall conclusions of the dissertation study. In addition, limitations and implications of this study will be addressed along with future research suggestions.

Overview of Study Findings

Paper One Findings

In addition to assessing the methodological challenges regarding the measurement of WPB in research, Paper One: 1) evaluated the reliability and validity of the SNAQ in an Alabama nursing sample, 2) illustrated how to classify bullying status using a latent class analysis (LCA) of the SNAQ and self-labelling item, and 3) compared WPB classification using the SNAQ and the self-labelling item. This was part one of the quantitative strand of the dissertation study. The Cronbach's alpha value for all nine SNAQ items ($\alpha = 0.89$) suggested a high internal consistency reliability of the SNAQ in this sample. Despite the high overall reliability of the SNAQ, we originally observed a less than perfect construct validity by confirmatory factor analysis (CFA). However, after re-running the CFA using the exploratory factor analysis (EFA) loadings that resulted in this study, the three model fit indices indicated a good fit. Additionally, the Cronbach's alpha for the work-related dimension rose considerably (from 0.54 to 0.84). The new alpha values ranged from 0.77 (physically intimidating) to 0.89 (overall), indicating good internal consistency (Taber, 2018). Therefore, the new dimensions from our EFA are recommended for the utilization and interpretation of the SNAQ in U.S. nursing samples.

Additionally, among 935 nurses who responded to both the SNAQ and self-labelling item, 372 (39.8%) nurses were classified as "bullied" by the LCA of the SNAQ; however, only 70 (7.5%) nurses were classified as "bullied" by the self-labelling item using the *weekly*, *daily*, or *monthly* frequency coding method. Despite the weak agreement (Cohen's $\alpha = .75$), 67 (96.0%) of the 70 nurses classified as "bullied" by the self-labelling item were also classified as "bullied" by the LCA. Further, nurse-reported

WPB using the LCA of the SNAQ was significantly associated with job satisfaction, intent to leave, nurse-reported quality of care, and nurse-reported patient safety grade (all $p < 0.0001$), indicating high criterion validity of the SNAQ. Overall, the findings indicate that the SNAQ is a reliable, valid, and convenient instrument to explore WPB in staff nurses working in hospitals throughout Alabama. Paper One concludes by suggesting further psychometric testing of the SNAQ and a recommendation to utilize the LCA of the SNAQ for future WPB studies in U.S. nursing samples.

Paper Two Findings

Paper Two discussed the results of quantitative analyses designed to explore the association between the nursing work environment and nurse-reported WPB, and the association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and nurse-reported patient safety grade). The results demonstrated that after controlling for covariates including individual (gender, age group, race, and education), employment (unit type and hours per week), and organizational (region) factors, a higher composite score on the Practice Environment Scale of the Nursing Work Index (PES-NWI) (Lake, 2002) was significantly associated with a lower risk of nurse-reported WPB ($OR = 0.16$ [0.12, 0.22], $p < 0.0001$). Interestingly, bivariate analysis indicated that the majority of individual (i.e., gender, age group, and race) and employment (i.e., years worked as a registered nurse, years worked in present hospital, years worked on current unit, unit type, and shift type) factors were not significantly associated with nurse-reported WPB, with the exception of education, hours per week, and overtime per week. These findings suggest that WPB can transcend individual and

employment factors and therefore support existing literature that advocates for a multifaceted approach to combat bullying behaviors in the workplace (Ariza-Montes et al., 2013; Mathisen et al., 2012). According to a systematic review (Stagg & Sheridan, 2010), most WPB interventions, which are primarily focused on the individual level, produce minimal changes in bullying or violent behaviors in the workplace. Thus, developing organizational-level interventions, guided by information gleaned from measuring the nursing work environment using the PES-NWI, can potentially offer a more effective approach to decreasing the prevalence of WPB, especially in conjunction with individual-level interventions and WPB education.

Paper Two also included results supporting an association between nurse-reported WPB and poorer patient outcomes (i.e., nurse-reported quality of care and nurse-reported patient safety grade). The analyses demonstrated that nurses experiencing WPB were less likely to report good/excellent quality of care ($OR = 0.28$ [0.18, 0.44], $p < 0.0001$) or a favorable patient safety grade ($OR = 0.35$ [0.25, 0.51], $p < 0.0001$), after adjusting for respective individual, employment, and organizational factors. These findings support a growing body of evidence that indicates disruptive workplace behaviors occurring in health care organizations negatively affect patient outcomes (Houck & Colbert, 2017; The Joint Commission [TJC], 2008, 2016). Paper Two concludes by suggesting that improving the nursing work environment can not only enhance care delivery and improve patient outcomes (Djukic et al., 2013; Institute of Medicine, 2004; Kane et al., 2007), but may also provide nurses the favorable working conditions, relationships, and support necessary to potentially decrease nurse-reported WPB.

Paper Three Findings

Paper Three focused on the results of qualitative analysis employed to further explore how the nursing work environment influences WPB and how nurse-reported WPB influences nurses' abilities to provide patient care. Workplace bullying was perceived to be ingrained in the unit's nursing work environment; nurses felt that they were targets of WPB because 1) they were new nurses, 2) there was an abuse of power, or 3) the nature of the work occasioned it. First, being a new nurse meant to most "new to the nursing profession"; however, in some cases, it meant being new to the unit. New nurses were frequently bullied by their preceptors or other nurses with more clinical experience during their orientation period or shortly after orientation completion. The nurses described situations of feeling hazed or drowning in their work without receiving help and expressed a sense of having to earn their place on the unit, which was achieved primarily through struggling to perform patient care. Second, the nurses noted that the bully was able to acquire and subsequently abuse power that was obtained either through their leadership role on the unit (e.g., nurse manager, assistant nurse manager [ANM], or charge nurse), the years of nursing experience they had, or by being a "favorite." Over half of the nurses identified the bully as a nurse in a leadership role. Third, the nurses expressed that the high-stress, demanding nature of nursing work could often increase burden and tensions among nurses and other members of the health care team. The work demands not only included workflow and workload, but also the emotional and physical demands of patients as the nurses tried to meet their patients' needs while simultaneously suppressing their own. The nurses perceived that work demands naturally developed into

patterns of WPB, which further normalized the disruptive behavior within the nursing work environment.

Additionally, the qualitative study findings expand our understanding of how nurses' experiences of WPB may influence their abilities to provide patient care. Interestingly, the nurses' perceptions were divided. Several nurses expressed that their patients were the priority. Although these nurses did not hide how experiencing WPB influenced them personally, whether through self-doubt, feelings of defenselessness, or emotional distress, they were adamant that patient care was their highest concern and that doing what it took to ensure their patient was not impacted negatively was important to them. However, other nurses acknowledged that because the bullying influenced them personally, created distraction, or decreased their willingness to ask questions or for help, consequentially, their ability to provide patient care was negatively influenced.

Differing bullying severities and duration of exposure, perpetrators, existing support levels, and relational aspects of the nurses' bullying narratives should be considered as likely influencers of nurses' WPB experiences and how WPB influences patient care. Additionally, perhaps the differing perceptions among nurses relates to individual factors including levels of resiliency, emotional intelligence, or self-efficacy, which were not explored in the interviews. These factors have been empirically shown to have a mediating role in the relationship between WPB and an individual's health (Anasori et al., 2020; Fida et al., 2018; Hutchinson & Hurley, 2013; Meseguer-de-Pedro et al., 2019).

Integration

In this section, meta-inferences from the integration of the results from the quantitative and qualitative study strands are briefly introduced to address the purpose of this dissertation, which was to explore the nursing work environment and patient outcomes (i.e., nurse-reported quality of care and patient safety grade) associated with nurse-reported WPB. Triangulation, or the combining of the quantitative and qualitative results, was used to identify components in the two study strands that could enhance our understanding of nurse-reported WPB (Creswell et al., 2006). A planned future publication (Paper Four) derived from this dissertation will provide a more comprehensive integration of study findings. The integrated findings regarding the influence of the nursing work environment on WPB and the influence of WPB on patient outcomes and/or patient care are presented below.

Influence of the Nursing Work Environment on WPB

In the quantitative study strand, all five of the nursing work environment domains, as measured by the PES-NWI (Lake, 2002) subscales and composite score, were significantly associated with nurse-reported WPB. After adjusting for individual (gender, age group, race, and education), employment (unit type and hours per week), and organizational (region) factors, the nursing foundations for quality care domain had the strongest association to nurse-reported WPB (OR = 0.21 [0.15, 0.28], $p < 0.0001$), followed by the nurse participation in hospital affairs domain (OR = 0.28 [0.22, 0.36], $p < 0.0001$). Both domains reflect attributes of the nursing work environment that empower

nurses through promoting autonomy, increasing nurses' control over their practice, and providing organizational support (Aiken & Patrician, 2000).

In the qualitative study strand, the nurses were asked to discuss characteristics of the nursing work environment that they perceived to influence their experiences of WPB. Workplace bullying was considered inherent in the nursing work environment as the behaviors experienced by the nurses were attributed to being new to the profession or unit, abuses of formal and informal power, and the nature of nursing work demands. Only one theme, an abuse of power, aligns with one domain (i.e., nurse manager ability, leadership, and support) of the nursing work environment as measured by the PES-NWI. Nurse manager ability, leadership, and support focuses on the critical role of the nurse manager. Among nurses who were identified as "bullied" in the quantitative study strand, the mean score for the nurse manager ability, leadership, and support of nurses domain was 2.13 ± 0.79. This mean score indicates that the bullied nurses did not "agree" that the desirable attributes of their nurse manager were present in their nursing work environment. Although the nurse participants in the qualitative study strand expressed that nurses in both formal and informal leadership positions abused power, therefore expanding beyond the nurse manager role, this finding supports literature that identifies those in leadership and management to be primary perpetrators of WPB (Hoel et al., 2010; Rayner et al., 2002), and underscores the important role of nursing leadership in creating and sustaining healthy nursing work environments (Bowles et al., 2019; Shirey, 2006). Although leadership styles were not explored in this study, they could explain the abuse of power by nurses in formal and informal leadership positions. In the nursing literature, authentic leadership has been identified as the preferred leadership style for

creating and sustaining healthy nursing work environments that: 1) are respectful and fair, 2) have a strong sense of trust among management and employees, 3) value communication and collaboration and view individuals as assets, and 4) encourage individuals to feel physically and emotionally safe (Shirey, 2006). Due to the strong influence leaders have in organizational culture, nurses in formal and informal leadership positions who have potentially destructive leadership styles (e.g., autocratic or laissez-faire) can perpetuate environments that are primed for WPB (Kaiser, 2017).

The two other themes (i.e., being a new nurse and the nature of the work) that were identified through qualitative data analysis do not fully align with the domains of the nursing work environment as measured by the PES-NWI in the quantitative study strand. Being a new nurse represents two employment factors (i.e., years as a registered nurse and years worked on current unit) that were *not* significantly associated with WPB in the quantitative study strand. Although the quantitative and qualitative results are conflicting, these findings support literature that demonstrates WPB can transcend individual and employment factors (Ariza-Montes et al., 2013; Granstra, 2015; Hutchinson et al., 2010; Koh, 2016) and emphasizes the need for multifaceted WPB interventions. Further, although being a new nurse is not one of the domains of the nursing work environment, the valued status of nurses, the level of support nurses have in developing their skillsets and providing quality care, and how well nurses are led and managed are represented by three nursing work environment domains including nurse participation in hospital affairs; nursing foundations for quality of care; and nurse manager ability, leadership, and support. Similar to the low mean score for the nurse manager ability, leadership, and support of nurses domain (2.13 ± 0.79), the mean scores

for nurse participation in hospital affairs domain (2.38 ± 0.68) and for nursing foundations in quality of care (2.79 ± 0.61) were also low among nurses who were identified as "bullied" in the quantitative study strand. Thus, all three mean scores indicate that the desired attributes, represented by each respective domain, were not present in their nursing work environments.

Perhaps these three domains are especially critical for a nurse new to the profession or to a unit. When integrating these results, it appears that providing nursing work environments that place value on nurses and the care they provide is important to potentially reducing nurse-reported WPB. Further, it is essential for nursing work environments to be led by a responsive, supportive, and fair nursing administration (i.e., charge nurse, ANM, nurse manager, nurse executive). Improving organizational justice and providing adequate support for nurses in all career stages should be a priority for nursing and health care organization leaders interested in supporting the nursing workforce and decreasing WPB. Because the nursing work environment underlies and drives the nursing processes within a health care organization, strategies directed at changing and improving the nursing work environment are most effective (Olds et al., 2017). Thus, further exploration of nursing work environments should occur to develop targeted WPB interventions.

Table 1

Influence of the Nursing Work Environment on WPB

Quantitative results	Qualitative results	Convergence or divergence of datasets
• ***Nurse manager ability, leadership, and support of nurses*** domain mean score = 2.13 ± 0.79	• ***Abuse of power*** o Only qualitative theme that aligns with nursing work environment domain as measured by the PES-NWI	• **Convergence** o Qualitative findings *expand* our understanding of the importance of nursing leaders beyond the nurse manager
• ***Years as an RN*** and ***years worked on current unit were not*** significantly associated with nurse-reported WPB	• ***Being a new nurse*** o Represents nurses new to the profession or new to a unit	• **Divergence** o The individual findings do not support each other but do support literature that suggests WPB requires multifaceted interventions
• ***Nurse participation in hospital affairs*** o Mean = 2.38 ± 0.68 • ***Nursing foundations for quality of care*** o Mean = 2.79 ± 0.61 • ***Nurse manager ability, leadership, and support*** o Mean = 2.13 ± 0.79	• ***Being a new nurse***, ***nature of work + abuse of power*** o Represent: 1. Valued status of nurses 2. Organizational support and justice 3. Leadership	• **Convergence** o Both sets of findings *enhance* each other and underscore the importance of favorable nursing work environments

Influence of WPB on Patient Outcomes and Care

In the quantitative study strand, nurses experiencing WPB were less likely to report good/excellent quality of care (*OR* = 0.28 [0.18, 0.44], $p < 0.0001$) or a favorable patient safety grade (*OR* = 0.36 [0.25, 0.51], $p < 0.0001$). One theme (i.e., bullying influences patient care) that emerged in the qualitative study strand represented nurses' perceptions that experiencing WPB negatively affected patient care, whether it was the quality of care provided or the patient's safety, which are distinct but interrelated

concepts. Thus, findings from both datasets support the idea that nurses' experiences of WPB negatively influences patient quality and safety outcomes and nurses' abilities to provide patient care. However, using the qualitative data, our understanding of the association between nurse-reported WPB and poorer patient outcomes is enhanced as nurses described *why* the bullying influenced their ability to provide patient care. Ultimately, nurses perceived that patient care was negatively influenced either indirectly through the personal effects of experiencing WPB, including self-doubt, feelings of defenselessness, or emotional distress, or directly through increased distraction, an inability to think clearly at work, or decreased communication and willingness to ask questions or for help.

Discrepancy, however, was also identified among the quantitative and qualitative study strand results regarding the influence of WPB on nurses' abilities to provide patient care. In the quantitative study strand, nurse-reported WPB was negatively associated with nurse-reported quality of care and patient safety grade. However, in the qualitative study strand, several nurses expressed that their patient was the priority and subsequently felt that their experiences of WPB did not threaten their ability to provide patient care, especially ensuring the patient's safety. This discrepancy identified during integration of the quantitative and qualitative study strand results suggests that the association between nurse-reported WPB and patient outcomes and/or patient care may not be as straight-forward as generally understood.

The integrated findings regarding patient care support two sides of a minimal amount of existing literature demonstrating the inconclusive influence of nurses' experiences of WPB on patient outcomes and/or patient care. While the quantitative

findings indicate a strong, negative association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and patient safety grade) and support the majority of published literature, the conflicting qualitative findings provide insight into why other research indicates WPB does not influence job performance (Olsen et al., 2017) or patient safety (Chipps et al., 2013). Individual factors such as resiliency, emotional intelligence, selflessness, or self-efficacy, were not explored in this dissertation study. Exploring these individual factors could potentially explain why some of the nurses participating in the qualitative study perceived WPB to influence their ability to provide patient care and why others did not. Interestingly, and as previously noted, research indicates that individual factors are not necessarily determinants of whether an individual is a target of WPB. However, these factors may be important in determining how a nurse reacts to WPB and, consequently, how WPB influences their abilities to provide patient care. These possibilities highlight the complexities of the WPB phenomenon.

Table 2

Influence of WPB on Patient Outcomes and Care

Quantitative results	Qualitative results	Convergence or divergence of datasets
• Nurses experiencing WPB were ***less likely*** to report good/excellent quality of care or a favorable patient safety grade	• ***Bullying influences patient care*** o **Indirectly** ➢ Mental/ emotional impact o **Directly** ➢ Increased distraction ➢ Inability to think clearly ➢ Decreased willingness to ask questions or for help	• **Convergence** o Qualitative findings *enhance* our understanding of why patient care is influenced when a nurse experiences WPB
• Nurses experiencing WPB were ***less likely*** to report good/excellent quality of care or a favorable patient safety grade	• ***My patient is my priority***	• **Divergence** o Qualitative findings provide insight into possible explanations for *why* existing research indicates WPB does not influence job performance or patient safety

Overall, this dissertation study supports research demonstrating that WPB can transcend individual and employment level factors and reinforces the need to develop organizational-level WPB interventions. Such interventions should target improvements in each of the five identified characteristics of the nursing work environment. Further, this study provides additional and supporting evidence regarding the link between nurse-

reported WPB and patient outcomes and/or patient care. Although more is understood, the link remains inconclusive and therefore warrants further exploration.

Limitations

There are several limitations to this dissertation study. The first limitation is based on variables used during the quantitative study strand. Global, one-item measures were used in the Alabama Hospital Staff Nurse Study to assess patient outcomes (i.e., nurse-reported quality of care and patient safety grade). Further, the nurses who responded to the Alabama Hospital Staff Nurse Study survey were not asked to rate the quality of nursing care and patient safety grade in the context of experiencing WPB. This may have affected the quantitative results pertaining to the association between nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and patient safety grade). Although use of these one-item measures limits our understanding of the complexity of quality care and patient safety in relation to nurse-reported WPB, other health services researchers have successfully utilized these one-item measures and have reported results that indicate their good predictive validity (McHugh & Stimpfel, 2012; Sochalski, 2004; Sorra & Dyer, 2010). This research provides evidence that nurses' perceptions of the quality and safety of health care are valuable (McHugh & Stimpfel, 2012). Thus, although quality of care and patient safety are complex concepts to assess in research, the use of these one-item measures in the quantitative study strand is acceptable based on previous empirical research.

Next, during the qualitative strand, purposeful sampling was used to collect data from nurses who have experienced WPB. However, there were differences in inclusion

criteria for both the quantitative and qualitative study strands. In the qualitative study strand, not all nurses had experienced WPB for at least six months, and some had experienced WPB more than one year ago. Obtaining nurses' perceptions of their previous WPB experiences introduces issues pertaining to memory disintegration and recall bias (Schat et al., 2006). In addition, data from the two study strands were collected from different nursing samples. Preferably, the qualitative strand would have included a subsample of nurses who responded to the Alabama Hospital Staff Nurse survey. Unfortunately, identification of survey respondents was not possible because no survey identifier was used. Such sampling issues limit interpretive consistency and the ability to generate meta-inferences during integration (Collins & Onwuegbuzie, 2013; Onwuegbuzie & Johnson, 2006). However, both nursing samples were inclusive of only inpatient staff nurses working in acute care hospitals in the same region.

Implications

In this section, implications of this study will be addressed for nursing/health care organization leaders and the research community.

Implications for Nursing/Health Care Organization Leaders

Currently, there is limited evidence to indicate the value of one WPB intervention over another, which makes it difficult for nursing/health care organization leaders to manage the issue (Stagg & Sheridan, 2010). Although additional research exploring the association between the nursing work environment and nurse-reported WPB should be conducted, the findings from this dissertation study provide nursing/health care

organization leaders a beginning focus for targeting attributes of the nursing work environment that may be influencing nurses' experiences of WPB. Further, although the perpetrators of WPB were unable to be identified in the quantitative study strand, the qualitative results suggest that nursing leaders and those with more clinical experience are frequently the perpetrators of the bullying behaviors. The nurses also perceived that the persistence of WPB within the nursing work environment was because the perpetrators held leadership roles. Unfortunately, this finding is in line with other WPB research (Cleary et al., 2010; Namie, 2017; Vessey et al., 2009) and is not surprising, as a power gradient between the bully and target is a defining attribute of WPB (Anusiewicz et al., 2019; Nielsen & Einarsen, 2018).

However, there are different types of power that relate to WPB (Prestia, 2018). In the qualitative study, the primary power types described were informational and legitimate power, as nurses with more experience or working in leadership roles were commonly reported as the bully. Thus, and echoing the call from The Joint Commission (TJC, 2016), those in nursing/health care organization leadership must be aware of their influence in creating and sustaining a favorable, civil nursing work environment that minimizes WPB. Bringing awareness to the behavior within the nursing work environment, coupled with continuing education regarding appropriate professional behaviors and ensuring that all health care workers, including those in leadership roles, are held accountable for modeling desirable behaviors, can potentially help decrease WPB prevalence. Establishing favorable nursing work environments characterized by a caring culture can be difficult to sustain, especially in health care organizations that are demanding and complex (Prestia, 2018). However, nursing and health care organization

leaders must diligently work to prioritize improving nursing work environments to better nurse, patient, and health care organizational outcomes.

Lastly, improving clinician well-being is becoming an increasing interest in health care organizations as an important part of improving the U.S. health care system (National Academy of Medicine, 2019). Thus, the findings from this study may assist leaders within other health care disciplines in supporting their workers. The nursing work environment represents the organizational factors important to aspects of nursing; however, other health care workers, including physicians; occupational, physical, and respiratory therapists; and patient care technicians, also work within the health care organization. Considering that working in health care increases the likelihood of experiencing WPB (Namie, 2013), the findings from this dissertation can potentially be transferable to other health care disciplines and work environments within health care organizations. Thus, leaders within health care organizations should consider the applicability of findings from this study to improve the work environments of their respective disciplines.

Implications for Research

Due to the methodological concerns surrounding WPB research, it is crucial for researchers interested in exploring WPB to 1) clearly delineate WPB from other forms of disruptive workplace behaviors to decrease conceptual confusion, 2) acknowledge the limitations regarding the measurement approaches used to assess WPB, and 3) describe in detail the analysis conducted to determine bully classification. Adhering to these suggestions will facilitate the comparison of WPB studies, which is crucial to

determining more accurate prevalence rates and understanding the impact and implications of WPB. Additionally, exploring WPB as a process is necessary to further understand how WPB evolves, escalates, and de-escalates. Research findings and implications can be strengthened if researchers remain aware of the methodological limitations of exploring WPB and adhere to methodological recommendations described in the literature.

Future Research

Future research in line with this dissertation includes: 1) a mediation analysis, 2) use of direct patient outcomes and exploring individual factors that may influence the link between nurse-reported WPB and patient outcomes and/or patient care, and 3) testing the effectiveness of multifaceted WPB interventions. First, based on the significant associations between the nursing work environment and nurse-reported WPB, and nurse-reported WPB and patient outcomes (i.e., nurse-reported quality of care and patient safety grade) found in this dissertation study, research should be conducted to determine if nurse-reported WPB is a potential mediator between the nursing work environment and patient outcomes. This would further inform the development of organizational-level WPB interventions, wherein through targeting the domains of the nursing work environment most associated to nurse-reported WPB, researchers and nursing/health care organization leaders can perhaps more effectively decrease the behavior. However, variations in nursing work environments may occur within and across health care organizations, as not all are managed the same or achieve the same levels of important work environment characteristics, including staffing or support from

administrators (Clarke & Aiken, 2008; Lake & Friese, 2006) Thus, it is important to further explore differing nursing work environments using the PES-NWI to determine which domains to target for environment-specific intervention development.

Second, to further determine the influence that nurse-reported WPB has on patient outcomes and/or patient care, future research should use direct patient outcomes archived on public domains (e.g., www.cms.gov). Use of direct patient outcomes data would not only further our understanding of the influence of nurse-reported WPB on patient outcomes and care delivery, but would also increase the rigor of research in this area and further assist in evaluating the impact of nursing on health care. Additionally, future research should explore individual factors (e.g., resiliency, emotional intelligence, selflessness, or self-efficacy) that may potentially explain why some nurses perceive WPB to influence patient care and others do not. Lastly, research is needed to test the effectiveness of WPB interventions that incorporate both individual and organizational-level strategies to decrease WPB in nursing work environments. Doing so would further guide intervention development and research.

Conclusions

High quality, safe patient care is a fundamental expectation of an efficient and effective health care system (Institute of Medicine, 2001; Laschinger, 2014). To achieve this expectation, discussions of health care quality, efficiency, and nursing care must be harmonized (Needleman & Hassmiller, 2009). As health care organizations continue to develop and implement strategies to better patient outcomes, identifying and minimizing issues within the nursing work environment that may negatively influence nurse well-

being are important to explore. Nurse-reported WPB is a commonly experienced systematic workplace problem that threatens nurse well-being and hinders better nurse, patient, and organizational outcomes (American Nurses Association, 2015; Hutchinson et al., 2010; TJC, 2008, 2016). Thus, efforts to create and sustain favorable nursing work environments continue to be paramount in health care safety and quality improvement initiatives as they allow nurses, unencumbered by WPB, to provide optimal nursing care.

General List of References

Agency for Healthcare Research and Quality. (n.d.). Glossary. https://psnet.ahrq.gov/glossary?f%5B0%5D=term%3AP

Agency for Healthcare Research and Quality. (2018a, June). *2016 National Healthcare Quality and Disparities Report: Overview of quality and access in the U.S. health care system.* Quality and Disparities Reports. https://www.ahrq.gov/research/findings/nhqrdr/nhqdr16/overview.html

Agency for Healthcare Research and Quality. (2018b, October). *Understanding quality measurement.* https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/chtoolbx/understand/index.html

Aiken, L. H., Cimiotti, J. P., Sloane, D. M., Smith, H. L., Flynn, L., & Neff, D. F. (2012). Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *The Journal of Nursing Administration, 42*(10 Suppl), S10–S16. https://doi.org/10.1097/01.NNA.0000420390.87789.67

Aiken, L. H., Clarke, S. P., Sloane, D. M., Lake, E. T., & Cheney, T. (2008). Effects of hospital care environment on patient mortality and nurse outcomes. *The Journal of Nursing Administration, 38*(5), 223. https://doi.org/doi:10.1097/01.NNA.0000312773.42352.d7

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA, 288*(16), 1987-1993. https://doi.org/10.1001/jama.288.16.1987

Aiken, L. H., & Patrician, P. A. (2000). Measuring organizational traits of hospitals: The Revised Nursing Work Index. *Nursing Research, 49*(3), 146-153. https://doi.org/10.1097/00006199-200005000-00006

American Nurses Association. (2015). *American Nurses Association position statement on incivility, bullying, and workplace violence.* https://www.nursingworld.org/~49d6e3/globalassets/practiceandpolicy/nursing-excellence/incivility-bullying-and-workplace-violence--ana-position-statement.pdf

Anasori, E., Bayighomog, S. W., & Tanova, C. (2020). Workplace bullying, psychological distress, resilience, mindfulness, and emotional exhaustion. *The Service Industries Journal, 40*(1-2), 65-89. https://doi.org/10.1080/02642069.2019.1589456

Anusiewicz, C. V., Montgomery, A., Fifolt, M., & Patrician, P. A. (2020). *Survey methodology and response rates among Alabama inpatient staff registered nurses* [Manuscript submitted for publication]. Department of Nursing, University of Alabama at Birmingham.

Anusiewicz, C. V., Shirey, M. R., & Patrician, P. A. (2019). Workplace bullying and newly licensed registered nurses: An evolutionary concept analysis. *Workplace Health & Safety, 67*(5), 250-261. https://doi.org/10.1177/2165079919827046

Ariza-Montes, A., Muniz, N. M., Montero-Simó, M. J., & Araque-Padilla, R. A. (2013). Workplace bullying among healthcare workers. *International Journal of Environmental Research and Public Health, 10*(8), 3121-3139. https://doi.org/10.3390/ijerph10083121

Ayanian, J. Z., & Markel, H. (2016). Donabedian's lasting framework for health care quality. *The New England Journal of Medicine*, *375*(3), 205. https://doi.org/10.1056/NEJMp1605101

Bowles, J. R., Batcheller, J., Adams, J. M., Zimmermann, D., & Pappas, S. (2019). Nursing's leadership role in advancing professional practice/work environments as part of the quadruple aim. *Nursing Administration Quarterly, 43*(2), 157-163. https://doi.org/10.1097/NAQ.0000000000000342

Castronovo, M. A., Pullizzi, A., & Evans, S. (2016). Nurse bullying: A review and a proposed solution. *Nursing Outlook, 64*(3), 208-214. http://dx.doi.org/10.1016/j.outlook.2015.11.008

Centers for Medicare and Medicaid Services. (2010). *Hospital quality initiative* [PDF file]. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits

Centers for Medicare and Medicaid Services. (2020). *Dataset downloads.* https://www.cms.gov/OpenPayments/Explore-the-Data/Dataset-Downloads

Chipps, E., Stelmaschuk, S., Albert, N. M., Bernhard, L., & Holloman, C. (2013). Workplace bullying in the OR: Results of a descriptive study. *AORN Journal, 98*(5), 479-493. https://doi.org/10.1016/j.aorn.2013.08.015

Choi, J., & Park, M. (2019). Effects of nursing organizational culture on face-to-face bullying and cyberbullying in the workplace. *Journal of Clinical Nursing, 28*(13-14), 2577-2588. https://doi.org/10.1111/jocn.14843

Clarke, S. P., & Aiken, L. H. (2008). An international hospital outcomes research agenda focused on nursing: Lessons from a decade of collaboration. *Journal of Clinical Nursing, 17*(24), 3317-3323. https://doi.org/10.1111/j.1365-2702.2008.02638.x

Cleary, M., Hunt, G. E., & Horsfall, J. (2010). Identifying and addressing bullying in nursing. *Issues in Mental Health Nursing, 31*(5), 331-335. https://doi.org/10.3109/01612840903308531

Coleman, C. L. (2018). *Rural nurses' perception of workplace incivility's influence on missed nursing care* [Doctoral dissertation, State University of New York at Buffalo]. ProQuest Dissertations and Theses Global.

Collins, K. M., & Onwuegbuzie, A. J. (2013). Establishing interpretive consistency when mixing approaches: Role of sampling designs in evaluations. *New Directions for Evaluation, 2013*(138), 85-95. https://doi.org/10.1002/ev.20060

Crawford, C. L., Chu, F., Judson, L. H., Cuenca, E., Jadalla, A. A., Tze-Polo, L., Kawar, L. N., Runnels, C., & Garvida, R. (2019). Nurse-to-nurse incivility, hostility, and workplace violence: A GPS for nurse leaders. *Nursing Administration Quarterly, 43*(2), 138-156. https://doi.org/10.1097/NAQ.0000000000000338

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Sage.

Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research.* Sage.

Creswell, J. W., Shope, R., Plano Clark, V. L., & Green, D. O. (2006). How interpretive qualitative research extends mixed methods research. *Research in the Schools*, *13*(1), 1-11.

D'Ambra, A. M., & Andrews, D. R. (2014). Incivility, retention and new graduate nurses: An integrated review of the literature. *Journal of Nursing Management, 22*(6), 735-742. https://doi.org/10.1111/jonm.12060

Dang, D., Bae, S. H., Karlowicz, K. A., & Kim, M. T. (2016). Do clinician disruptive behaviors make an unsafe environment for patients? *Journal of Nursing Care Quality*, *31*(2), 115-123. https://doi.org/10.1097/NCQ.0000000000000150

Djukic, M., Kovner, C. T., Brewer, C. S., Fatehi, F. K., & Cline, D. D. (2013). Work environment factors other than staffing associated with nurses' ratings of patient care quality. *Health Care Management Review, 38*(2), 105-114.

Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Quarterly, 44*(3), 166-203. https://doi.org/10.1111/j.1468-0009.2005.00397.x

Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*, *23*(1), 24-44. https://doi.org/10.1080/02678370902815673

Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2011). The concept of bullying and harassment at work: The European tradition. In S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and harassment in the workplace: Developments in theory, research and practice* (pp. 3-40). CRC Press.

Escartin, J., Zapf, D., Arrieta, C., & Rodriguez-Carballeira, A. (2011). Workers' perception of workplace bullying: A cross-cultural study. *European Journal of Work and Organizational Psychology,* 1-28. https://doi.org/10.1080/13594320903395652

Farrell, G. A., Bobrowski, C., & Bobrowski, P. (2006). Scoping workplace aggression in nursing: Findings from an Australian study. *Journal of Advanced Nursing*, *55*(6), 778-787. https://doi.org/10.1111/j.1365-2648.2006.03956.x

Fida, R., Laschinger, H. K. S., & Leiter, M. P. (2018). The protective role of self-efficacy against workplace incivility and burnout in nursing: A time-lagged study. *Health Care Management Review, 43*(1), 21-29. https://doi.org/10.1097/HMR.0000000000000126

Gallagher, R. M., & Rowell, P. A. (2003). Claiming the future of nursing through nursing-sensitive quality indicators. *Nursing Administration Quarterly, 27*(4), 273-284. https://doi.org/10.1097/00006216-200310000-00004

Gamian-Wilk, M., Wilk, K., & Meyer, E. S. (2017). Workplace bullying as a social influence arena: A review of social influence tactics occurring in the bullying process. *The Educational Forum, 29*(1), 79-96.

Giorgi, G., Mancuso, S., Fiz Perez, F., Castiello D'Antonio, A., Mucci, N., Cupelli, V., & Arcangeli, G. (2016). Bullying among nurses and its relationship with burnout and organizational climate. *International Journal of Nursing Practice, 22*(2), 160-168. https://doi.org/10.1111/ijn.12376

Granstra, K. (2015). Nurse against nurse: Horizontal bullying in the nursing profession. *Journal of Healthcare Management, 60*(4), 249-257. https://doi.org/10.1097/00115514-201507000-00006

Hoel, H., Glasø, L., Hetland, J., Cooper, C. L., & Einarsen, S. (2010). Leadership styles as predictors of self-reported and observed workplace bullying. *British Journal of Management*, *21*(2), 453-468. https://doi.org/10.1111/j.1467-8551.2009.00664.x

Hogh, A., Baernholdt, M., & Clausen, T. (2018). Impact of workplace bullying on missed nursing care and quality of care in the eldercare sector. *International Archives of Occupational and Environmental Health*, *91*(8), 963-970. https://doi.org/10.1007/s00420-018-1337-0

Houck, N. M., & Colbert, A. M. (2017). Patient safety and workplace bullying: An integrative review. *Journal of Nursing Care Quality, 32*(2), 164-171. https://doi.org/10.1097/NCQ.0000000000000209

Hutchinson, M., & Hurley, J. (2013). Exploring leadership capability and emotional intelligence as moderators of workplace bullying. *Journal of Nursing Management, 21*(3), 553-562. https://doi.org/10.1111/j.1365-2834.2012.01372.x

Hutchinson, M., Wilkes, L., Jackson, D., & Vickers, M. H. (2010). Integrating individual, work group and organizational factors: Testing a multidimensional model of bullying in the nursing workplace. *Journal of Nursing Management, 18*(2), 173-181. https://doi.org/10.1111/j.1365-2834.2009.01035.x

Institute of Medicine. (2001, March). Crossing the quality chasm: A new health system for the 21st century. http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf

Institute of Medicine. (2004). *Keeping patients safe: Transforming the work environment of nurses*. The National Academy Press.

International Council of Nurses (2008). *Positive practice environments: Quality workplaces = quality patient care. Information and action tool kit.* https://www.twna.org.tw/frontend/un16_commission/webPages_4/IND/1.pdf

Jacobson, K. J., Hood, J. N., & Van Buren III, H. J. (2014). Workplace bullying across cultures: A research agenda. *International Journal of Cross Cultural Management, 14*(1), 47-65. https://doi.org/10.1177/1470595813494192

Johnson, J., & Trad, M. (2014). Bullying among radiation therapists: Bully behavior and effects on personal health. *Radiation Therapist*, *23*, 11-20.

Kaiser, J. A. (2017). The relationship between leadership style and nurse-to-nurse incivility: Turning the lens inward. *Journal of Nursing Management*, *25*(2), 110-118. https://doi.org/10.1111/jonm.12447

Kane, R. L., Shamliyan, T. A., Mueller, C., Duval, S., & Wilt, T. J. (2007). The association of registered nurse staffing levels and patient outcomes: Systematic review and meta-analysis. *Medical Care*, *45*(12), 1195-1204. https://doi.org/10.1097/MLR.0b013e3181468ca3

Kazanjian, A., Green, C., Wong, J., & Reid, R. (2005). Effect of the hospital nursing environment on patient mortality: A systematic review. *Journal of Health Services Research & Policy, 10*(2), 111-117. https://doi.org/10.1258/1355819053559100

Koh, W. M. S. (2016). Management of workplace bullying in hospital: A review of the use of cognitive rehearsal as an alternative management strategy. *International Journal of Nursing Sciences, 3*(2), 213-222. https://doi.org/10.1016/j.ijnss.2016.04.010

Kutney-Lee, A., McHugh, M. D., Sloane, D. M., Cimiotti, J. P., Flynn, L., Neff, D. F., & Aiken, L. H. (2009). Nursing: A key to patient satisfaction: Patients' reports of satisfaction are higher in hospitals where nurses practice in better work environments or with more favorable patient-to-nurse ratios. *Health Affairs, 28*(Suppl3), w669-w677. https://doi.org/10.1377/hlthaff.28.4.w669

Lake, E. T. (2002). Development of the practice environment scale of the Nursing Work Index. *Research in Nursing & Health, 25*(3), 176-188. https://doi.org/10.1002/nur.10032

Lake, E. T., & Friese, C. R. (2006). Variations in nursing practice environments: Relation to staffing and hospital characteristics. *Nursing Research, 55*(1), 1-9. https://doi.org/10.1097/00006199-200601000-00001

Laschinger, H. K. S. (2014). Impact of workplace mistreatment on patient safety risk and nurse-assessed patient outcomes. *Journal of Nursing Administration, 44*(5), 284-290. https://doi.org/10.1097/NNA.0000000000000068

Laschinger, H. K. S., & Fida, R. (2014). A time-lagged analysis of the effect of authentic leadership on workplace bullying, burnout, and occupational turnover intentions. *European Journal of Work & Organizational Psychology, 23*, 739-753. https://doi.org/10.1080/13594 32X.2013.804646

Lawton, R., O'Hara, J. K., Sheard, L., Reynolds, C., Cocks, K., Armitage, G., & Wright, J. (2015). Can staff and patient perspectives on hospital safety predict harm-free care? An analysis of staff and patient survey data and routinely collected outcomes. *BMJ Quality & Safety, 24*(6), 369-376. http://dx.doi.org/10.1136/bmjqs2014-003691

Lewis, M. A. (2006). Nurse bullying: Organizational considerations in the maintenance and perpetration of health care bullying cultures. *Journal of Nursing Management, 14*(1), 52-58. https://doi.org/10.1111/j.1365-2934.2005.00535.x

MacIntosh, J., Wuest, J., Gray, M. M., & Cronkhite, M. (2010). Workplace bullying in health care affects the meaning of work. *Qualitative Health Research*, *20*(8), 1128-1141. https://doi.org/10.1177/1049732310369804

Mathisen, G., Øgaard, T., & Einarsen, S. (2012). Individual and situational antecedents of workplace victimization. *International Journal of Manpower, 33*(5), 539-555. https://doi.org/10.1108/01437721211253182

McClure, M. L., Poulin, M. A., Sovie, M. D., & Wandelt, M. A. (1983). Magnet hospitals: Attraction and retention of professional nurses. American Academy of Nursing. Task Force on Nursing Practice in Hospitals.

McHugh, M. D., Kutney-Lee, A., Cimiotti, J. P., Sloane, D. M., & Aiken, L. H. (2011). Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Affairs, 30*(2), 202-210. https://doi.org/10.1377/hlthaff.2010.0100

McHugh, M. D., & Stimpfel, A. W. (2012). Nurse reported quality of care: A measure of hospital quality. *Research in Nursing & Health, 35*(6), 566-575. https://doi.org/10.1002/nur.21503

Meseguer-de-Pedro, M., García-Izquierdo, M., Fernández-Valera, M. M., & Soler-Sánchez, M. I. (2019). The role of resilience between workplace bullying and health: A mediational analysis. *Journal of Work and Organizational Psychology, 35*(3), 177-182. https://doi.org/10.5093/jwop2019a16

Namie, G. (2013). *2013 WBI survey: Bullying by industry.* Workplace Bullying Institute. https://www.workplacebullying.org/multi/pdf/WBI-2013-Industry.pdf

Namie, G. (2017). *2017 WBI U.S. Workplace Bullying Survey.* Workplace Bullying Institute. https://www.workplacebullying.org/wbiresearch/wbi-2017-survey/

National Academy of Medicine. (2019, October). Consensus study report highlights: Taking action against clinician burnout: A systems approach to professional well-being. https://nam.edu/wp-content/uploads/2019/10/CR-report-highlights-brief-final.pdf

Needleman, J., & Hassmiller, S. (2009). The role of nurses in improving hospital quality and efficiency: Real-world results: Nurses have key roles to play as hospitals continue their quest for higher quality and better patient safety. *Health Affairs, 28*(4), w625-w633. https://doi.org/10.1377/hlthaff.28.4.w625

Nielsen, M. B., & Einarsen, S. (2018). What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. *Aggression and Violent Behavior, 42,* 71-83. https://doi.org/10.1016/j.avb.2018.06.007

Notelaers, G., Van der Heijden, B., Hoel, H., & Einarsen, S. (2019). Measuring bullying at work with the Short-Negative Acts Questionnaire: Identification of targets and criterion validity. *Work & Stress, 33*(1), 58-75. https://doi.org/10.1080/02678373.2018.1457736

Olds, D. M., Aiken, L. H., Cimiotti, J. P., & Lake, E. T. (2017). Association of nurse work environment and safety climate on patient mortality: A cross-sectional

study. *International Journal of Nursing Studies, 74,* 155-161. https://doi.org/10.1016/j.ijnurstu.2017.06.004

Olsen, E., Bjaalid, G., & Mikkelsen, A. (2017). Work climate and the mediating role of workplace bullying related to job performance, job satisfaction, and work ability: A study among hospital nurses. *Journal of Advanced Nursing, 73*(11), 2709-2719. https://doi.org/10.1111/jan.13337

Onwuegbuzie, A., & Johnson, B. (2006). The validity issues in mixed research. *Research in the Schools, 13*(1), 48-63. file:///C:/Users/canus/OneDrive/Desktop/Chapter%205/Onwuegbuzie%20&%20Johnson%20(2006).pdf

Petrovic, M. A., & Scholl, A. T. (2018). Why we need a single definition of disruptive behavior. *Cureus, 10*(3), e2339. https://doi.org/10.7759/cureus.2339

Plano Clark, V. L., & Ivankova, N. V. (2016). *Mixed methods research: A guide to the field.* Sage.

Prestia, A. S. (2018). Personalizing appreciation to attain the fourth aim. *Nurse Leader, 16*(4), 240-243. https://doi.org/10.1016/j.mnl.2018.05.012

Rayner, C., Hoel, H., & Cooper, C. L. (2002). *Bullying at work: What we know, who is to blame and what can we do.* Taylor Francis.

Reknes, I., Notelaers, G., Magerøy, N., Pallesen, S., Bjorvatn, B., Moen, B. E., & Einarsen, S. (2017). Aggression from patients or next of kin and exposure to bullying behaviors: A conglomerate experience? *Nursing Research and Practice*, *2017*. https://doi.org/10.1155/2017/1502854

Roche, M., Diers, D., Duffield, C., & Catling-Paull, C. (2010). Violence toward nurses, the work environment and patient outcomes. *Journal of Nursing Scholarship, 42*(1), 13-22. https://doi.org/10.1111/j.1547-5069.2009.01321.x

Rosenstein, A. H., & Naylor, B. (2012). Incidence and impact of physician and nurse disruptive behaviors in the emergency department. *Journal of Emergency Medicine, 43*(1), 139-148. https://doi.org/10.1016/j.jemermed.2011.01.019

Rosenstein, A. H., & O'Daniel, M. (2008). A survey of the impact of disruptive behaviors and communication defects on patient safety. *The Joint Commission Journal on Quality and Patient Safety*, *34*(8), 464-471. https://doi.org/10.1016/S1553-7250(08)34058-6

Rowe, M. M., & Sherlock, H. (2005). Stress and verbal abuse in nursing: Do burned out nurses eat their young? *Journal of Nursing Management*, *13*(3), 242-248. https://doi.org/10.1111/j.1365-2834.2004.00533.x

Salin, D., Cowan, R., Adewumi, O., Apospori, E., Bochantin, J., D'Cruz, P., Djurkovic, N., Durniat, K., Escartin, J., Guo, J., Isik, I., Köszegi, S., McCormack, D., Monserrat, S., & Zedlacher, E. (2019). Workplace bullying across the globe: A cross-cultural comparison. *Personnel Review*. https://doi.org/10.1108/PR-03-2017-0092

Sauer, P. A., & McCoy, T. P. (2017). Nurse bullying: Impact on nurses' health. *Western Journal of Nursing Research, 39*(12), 1533-1546. https://doi.org/10.1177/0193945916681278

Schat, A. C., Frone, M. R., & Kelloway, E. K. (2006). Prevalence of workplace aggression in the US workforce: Findings from a national study. In E. K.

Kelloway, J. Barling & J. J. Hurrell (Eds.), *Handbook of workplace violence* (pp. 47-89). Sage. https://doi.org/10.4135/9781412976947.n4

Schoonenboom, J., & Johnson, R. B. (2017). How to construct a mixed methods research design. *Kölner Zeitschrift für Soziologie und Sozialpsychologie, 69*(2), 107-131. https://doi.org/10.1007/s11577-017-0454-1

Shirey, M. R. (2006). Authentic leaders creating healthy work environments for nursing practice. *American Journal of Critical Care*, *15*(3), 256-267. https://doi.org/10.4037/ajcc2006.15.3.256

Sloane, D. M., Smith, H. L., McHugh, M. D., & Aiken, L. H. (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

Smeds-Alenius, L., Tishelman, C., Lindqvist, R., Runesdotter, S., & McHugh, M. D. (2016). RN assessments of excellent quality of care and patient safety are associated with significantly lower odds of 30-day inpatient mortality: A national cross-sectional study of acute-care hospitals. *International Journal of Nursing Studies, 61,* 117-124. https://doi.org/10.1016/j.ijnurstu.2016.06.005

Sochalski, J. (2004). Is more better? The relationship between nurse staffing and the quality of nursing care in hospitals. *Medical Care, 42*(2), II67-II73. https://www.jstor.org/stable/pdf/4640726

Sorra J., Gray L., Streagle S., Famolaro, T., Yount, N., & Behm, J. (2016, January). AHRQ Hospital Survey on Patient Safety Culture: User's Guide. AHRQ Publication No. Agency for Healthcare Research and Quality.

http://www.ahrq.gov/professionals/quality-patientsafety/patientsafetyculture/hospital/index.html

Sorra, J. S., & Dyer, N. (2010). Multilevel psychometric properties of the AHRQ hospital survey on patient safety culture. *BMC Health Services Research, 10*(1), 199. https://doi.org/10.1186/1472-6963-10-199

Sousa, M. F. (2012). Management and leadership: The elephant in the room: The truth about bullying in nursing. *Journal of Radiology Nursing, 1*(31), 29-31. https://doi.org/10.1016/j.jradnu.2012.01.002

Stagg, S. J., & Sheridan, D. (2010). Effectiveness of bullying and violence prevention programs: A systematic review. *Workplace Health & Safety, 58*(10), 419-424. https://doi.org/10.1177/216507991005801003

Stalpers, D., Kieft, R. A., Van Der Linden, D., Kaljouw, M. J., & Schuurmans, M. J. (2016). Concordance between nurse-reported quality of care and quality of care as publicly reported by nurse-sensitive indicators. *BMC Health Services Research, 16*(1), 120. https://doi.org/10.1186/s12913-016-1372-z

Stimpfel, A. W., Djukic, M., Brewer, C. S., & Kovner, C. T. (2019). Common predictors of nurse-reported quality of care and patient safety. *Health Care Management Review, 44*(1), 57-66. https://doi.org/10.1097/HMR.0000000000000155

Swiger, P. A. (2017). *The military nursing practice environment's association with patient outcomes* [Doctoral dissertation, The University of Alabama at Birmingham]. ProQuest Dissertations and Theses Global.

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273-1296. https://doi.org/10.1007/s11165-016-9602-2

The Joint Commission. (2008). *Sentinel event alert (40): Behaviors that undermine a culture of safety.* https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/sea_40pdf.pdf?db=web&hash=D12B14016B1EA82EC1F1395AB6C3B929

The Joint Commission. (2016, June). Bullying has no place in health care [PDF file]. *Quick Safety, 24.* https://www.jointcommission.org/-/media/tjc/documents/newsletters/quick_safety_issue_24_june_2016pdf.pdf

United States Department of Labor, Bureau of Labor Statistics. (2012). *Occupational Outlook Handbook, 2012-13 Edition*. GPO, U.S. Bureau of Labor Statistics. https://www.bls.gov/ooh/healthcare/licensed-practical-and-licensed-vocational-nurses.htm

Van Bogaert, P., Clarke, S., Roelant, E., Meulemans, H., & Van de Heyning, P. (2010). Impacts of unit-level nurse practice environment and burnout on nurse-reported outcomes: A multilevel modelling approach. *Journal of Clinical Nursing, 19*(11-12), 1664-1674. https://doi.org/10.1111/j.1365-2702.2009.03128.x

Vessey, J. A., DeMarco, R. F., Gaffney, D. A., & Budin, W. C. (2009). Bullying of staff registered nurses in the workplace: A preliminary study for developing personal and organizational strategies for the transformation of hostile to healthy

workplace environments. *Journal of Professional Nursing*, *25*(5), 299-306. https://doi.org/10.1016/j.profnurs.2009.01.022

Walrath, J. M., Dang, D., & Nyberg, D. (2013). An organizational assessment of disruptive clinician behavior: Findings and implications. *Journal of Nursing Care Quality, 28*(2), 110-121. https://doi.org/10.1097/NCQ.0b013e318270d2ba

Waschgler, K., Ruiz-Hernández, J. A., Llor-Esteban, B., & Jiménez-Barbero, J. A. (2013). Vertical and lateral workplace bullying in nursing: Development of the hospital aggressive behavior scale. *Journal of Interpersonal Violence*, *28*(12), 2389-2412. https://doi.org/10.1177/0886260513479027

APPENDIX

UNIVERSITY OF ALABAMA AT BIRMINGHAM INSITUTIONAL REVIEW BOARD APPROVAL LETTER

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM
Office of the Institutional Review Board for Human Use

470 Administration Building
701 20th Street South
Birmingham, AL 35294-0104

205.934.3789 | Fax 205.934.1301 |

irb@uab.edu

APPROVAL LETTER

TO: Anusiewicz, Colleen V

FROM: University of Alabama at Birmingham Institutional Review Board
Federalwide Assurance # FWA00005960
IORG Registration # IRB00000196 (IRB 01)
IORG Registration # IRB00000726 (IRB 02)

DATE: 24-Apr-2020

RE: IRB-300002843

Exploring the Nursing Work Environment and Patient Outcomes Associated with Nurse-reported Workplace Bullying: A Mixed Methods Study

---

The IRB reviewed and approved the Revision/Amendment submitted on 23-Apr-2020 for the above referenced project. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services.

Type of Review: Exempt

Exempt Categories: 2, 4, Including Limited Review

Determination: Exempt

Approval Date: 24-Apr-2020

Documents Included in Review:

- praf.200411.pdf