QUALITY OF NURSING CARE AND ITS RELATIONSHIP TO WORK ENVIRONMENT FROM THE PERSPECTIVE OF BEDSIDE NURSES

By

Joyce A. Finch

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Dissertation Committee

Dr. Angela Bowman

Dr. Amanda Flagg

Dr. Chandra Story

This manuscript is dedicated to my family, friends, and loved ones for supporting me during this process. I especially want to thank my son, Austin, who supported me and inspired me to take this journey. I also want to thank my Dad who instilled in me you can accomplish whatever you want in life with hard work and passion for life. I also want to dedicate this to the memory of my Mom. She was a strong woman who modeled, love, compassion, and living life to its fullest.

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Abstract

Quality of nursing care has become an important when looking at patient outcomes and the impact it has on long-term care of the patient. Quality can be defined in many ways. Defining quality of nursing care can be a diverse approach based on the perspective of many individuals, including the perspective of nurses. Quality of nursing care from the nursing perspective is complex and has many variables that influence that perspective. Variables include nursing work load, patient acuity, supportive administration, teamwork within the facility/unit, patient/family conflict, and overtime shifts. Patients are the individuals that nurses commit to caring for and throughout research; the patient identifies the quality nursing care provided. Facilities often utilize patient satisfaction and patient outcomes when evaluating nursing care. The purpose of this research is to explore how quality of nursing care is defined historically and how the nurse perceives quality of nursing care and its relationship to work environment. Additionally, how their perception may change based on the COVID-19 pandemic.

Existing evidence indicates that if nurses have a supportive or positive work environment, then a nurse is motivated to provide quality of nursing care. Healthcare presents its own unique stressor to nurses in their attempt to provide quality care. Healthcare is constantly changing, and it impacts the work environment of the nurse. There is a significant shortage of the nursing workforce. More nursing jobs will be needed in the United States than any other profession through 2022. 11 million more

nurses are needed to prevent a further shortage. The aging population, aging workforce, workforce burnout, violence in the health care setting, and growth in certain regions make it difficult to provide the support nurses need in health care facilities.

Measuring quality from the nursing perspective is complex. Ways to measure quality address the connection of quality of nursing care and nurse work environment. The hypothesis is supportive that quality of nursing care is given if there is a supportive work environment. The challenge is what a nurse identifies as a barrier, in giving quality of nursing care and what their facilities identify as quality of nursing care.

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CHAPTER I INTRODUCTION

Nursing is a dynamic career that changes consistently. Many variables affect the job as a nurse and in return affect patient outcomes. The current study examines the relationship between the quality of nursing care and the work environment. The work environment is changing due to influences in health care and the state of the business of health care. Health care is in crisis with financial strain and a shrinking work force. Existing evidence in the literature indicates that if a nurse has a supportive work environment, then the nurse will be motivated to provide quality care. Thus, quality care has been demonstrated to be a determinant of positive patient outcomes, (Aiken et al., 2014; Aiken et al., 2014; Smeds-Alenius et al., 2016; Anderson and Lindgren, 2013; Bachnick et al., 2018; Burhans and Alligood, 2010; Ma and Olds, 2015; Stalpers et al., 2015). Nurses work in a variety of environments and are under a tremendous amount of stress. A stressful environment can hinder a nurse in providing care, causing unexpected negative outcomes for the patient when care is not provided. A redesign of the work environment using the nursing perspective is imperative for planning. The nurse needs to identify processes and items in the work environment that would improve patient quality of care. Improvements in workflow and necessary changes can improve patient outcomes. Changes to improve the environment include reduced patient to nurse ratio, lower acuity, enough staffing, and support of administration. It is difficult for nurses to have a voice in the work environment when they are having difficulty accomplishing all the job role. Nurses practice expands beyond medicine, but they must have a good understanding of the psychosocial, environmental, and fiscal side of health care. It is

important for nurses to understand the foundation of nursing, grasp those concepts, and master the art of caring for patients, (Ahkstedt et al., 2018; Aiken, 2019; Aylett, 2019; Boonpracom et al., 2019; Boyer et al., 2019; van Dischoeck et al, 2016; Dubois et al, 2013; Feather et al, 2018).

The nursing work environment has become one of the determining factors of whether quality of nursing care is provided in the acute care setting. Determination of quality of nursing care is linked to positive patient outcomes (Aiken et al, 2011; Aiken et al, 2012; Izumi et al., 2010). The focus of quality of nursing care are the patients in the acute care setting. Nurses provide the hands-on care, and many factors affect the nurse's ability to care out quality care (Smith et al., 2018; Kear, & Ulrich 2018; Norman & Sjetne, 2017). Finding a relationship between quality of nursing care and nurse work environment can be a challenging health care setting, staffing, hours worked, experience of the nurse, education of the nurse, support of administration, and focus of the facility where the nurse is employed. Factors that influence quality care as defined by nurses are the work environment, burnout, past experiences, support of administration, patient-to nurse ratio, and looking into improving job satisfaction (Lui & Aungsuroch, 2017; Sharif et al., 2018; Stalpers et al., 2015; Boagaert, et al, 2017; Azarm et al, 2017).

Quality of nursing care overlaps with quality health care due to the nature of the nurse's role in health care. To achieve positive patient outcomes, quality of nursing care is required. Quality is composed of hands on care, spiritual care, and mental care, (Gunther& Alligood, 2002). To improve the quality of nursing care, patient outcomes have become the focus, including patient satisfaction, which may not indicate quality of nursing care. Measurement of quality is diverse and has been defined by the facilities that

employ nurses, accrediting bodies that guide practice, and any sentinel event that might occur while a patient is under care in the acute care setting (CIT). For quality care to occur a practicing nurse must also provide competent care. The nurse must be knowledgeable in identifying what the patient needs. Nurses identify what information is pertinent in the medical history, what causes acute episodes causing hospitalization, what medications the patient is taking, and the objective assessment component about the care.

Since the nursing work environment has many influences, it can be difficult to generalize what quality nursing care looks like in every unit setting. Consideration of the unit type, listening to the perspective of those working in that setting, and input to improve quality, can help an organization overall improve patient outcomes. Determination of quality care is exploring whether safe practice with patient care is less likely to cause harm and further injury (Ara et al., 2015; Milutinovic et al., 2012; Stanik-Hutt et al, 2013). The importance of exploring the relationship between quality nursing care and the nurse work environment can improve overall patient care and outcomes. It is important to identify the trends in the nurse work environment, how it affects practice, and the overall effect to health care. The goal of this research is to identify the nature of the relationship between quality care and work environment, and to identify ways to capitalize on this relationship to improve quality using the nurse's perspective and alteration in the work environment.

What is Nurse Work?

Nursing is a career that has a variety of ways that work can be defined. The responsibilities of a nurse can vary from being in an acute care setting assessing trauma to providing health care screenings in the school settings. To succeed in those environments the nurse must have the drive and skill to accomplish tasks for the patients in those settings. A nurse must have knowledge and expertise in order to understand and effectively look out for a patient's wellbeing, (American Nurses' Association, ANA, 2022). Nursing work ranges from direct patient care, case management, establishing nursing practice standards, directing complex nursing care systems, and developing quality assurance procedures. Nurses are in every community and provide expert care from birth to the end of life, (ANA, 2022).

A nurse has many pathways based on their experience and level of education. State Boards of Nursing define the scope of practice based on the guidelines defined by The American Nurses' Association. There are 3 types of nurses Registered Nurses (RN), Advanced Practice Nurses, including specialists, (APRN, APRNs), and Licensed Practical Nurses, (LPN). The scope of practice varies and includes different responsibilities. RNs are critical and utilized in public whenever they are needed. Responsibilities include getting a baseline of a patient by assessment and asking a complete health history before making intervention decisions, providing education to help promote the wellbeing of their patient, administering medications, putting the interventions in action, and coordinating care with other health care providers. The APRN must hold a master's degree and meet certain criteria of expertise depending on the facility they perform their role. They provide primary and preventative health care to the public, educate, treat illnesses, diagnose disorders, manage chronic diseases, and are

responsible to stay current by continuous education. The APRN have expertise by practicing with evidence-based practice through theory, technology, and methods. LPNs support the core of nursing practice and are supervised by the RN, APRN, and MD. Their responsibilities include basic and routine health care of the patient. Other responsibilities are monitoring patients through vital signs, reporting when conditions deteriorate, use nursing functions changing dressings, caring for wounds, making sure patients are hydrated, nourished, comfortable, and administer medications within their scope of practice, (ANA, 2022).

There is a critical thinking process that nurses must utilize to address findings through the assessment of their patient and the health concerns that a patient may experience. Currently in nursing it is called the nursing process. It is a step by step process to guide the nurse in their care. The steps in the nursing process include assessment, diagnosis/outcomes, planning, implementation, and evaluation. Assessment includes collecting data to establish a baseline of health for their patient. The two types of data are subjective data, which is obtained through a patient interview and objective data, which is a head to toe physical assessment of the patient. Diagnosis is analyzing the data collected through assessment and processing to identify the priority problem. The nurse uses critical-thinking skills and nursing judgement to organize, analyze, and interpret the data collected in assessment. The third step in the nursing process is planning/outcomes. This is identifying and individualizing expected outcomes for the patient. It is critical in the planning phase to identify the priority problems and interventions, set realistic goals, determine appropriate nursing interventions, communicate, collaborate when necessary, and document the proposed plan. The fourth step is implementation. This step includes

nursing interventions, continuous assessment of the patient's responses to treatments and communication of the patient's responses that are observed and documented. The last step is evaluation. Evaluation determines the patient's progress towards the expected outcome identified in the planning step. If the patient has a poor response or no improvement, then a new nursing process starts over. If the patient has a positive response where there is progress towards the expected outcome, then the nurse will continue to monitor, (Seaback, 2013).

What is Work Environment?

A work environment is the physical and social setting where one performs their job. The elements of a work environment can impact performance, feelings of well-being, efficiency, relationships, and health. Nursing work environment is a physical and psychological aspect that impacts what care the nurse can provide, (Oshodit et al., 2019; Ahlsted et al., 2019; Wei et al., 2018).

Nurses often work in an environment that has multiple layers of positions and are in a large organization. There are a variety of facilities where the work environment can be different. Nurses work in settings of hospitals, physicians' offices, home health care, nursing care facilities, outpatient clinics, and schools, (Oshodi et al., 2019). Their daily work is full of new knowledge and challenges to their routine. Nurses may experience negative or positive feelings based on work environment. They have interactions with patients, families, physicians, support staff, and other peers the whole time they are on the clock. Even with the best planning work flow gets continuously interrupted which

prompts the nurse to adjust their plan, (Ahlstedt et al., 2019). When experiences are positive, then nurses have the motivation to complete their work and it becomes meaningful, (Perreira et al., 2016). Nurses work a variety of shifts in 8 hour or 12-hour increments. Some organizations require to have a nurse pick up call which can be additional hours worked in a week. There also may be mandatory overtime. Work includes more than just patient care. Nurses report that 26%-50% of their care is indirect such as documenting, shift report, and delegation, (Campbell et al., 2019). The assessment of work environment is based on social interactions with co-workers, job satisfaction, and compassion satisfaction. When a nurse has a work environment that is deemed not satisfied then psychological consequences can occur in the form of stress, emotional exhaustion, burnout, and compassion fatigue, (Wei et al., 2018).

Theoretical Framework

What is Care/Caring?

Nursing practice is guided by theories that provide a framework for care. It is necessary to understand caring to provide quality care to patients. Care is defined many ways based on the nurse who provides the care. Care is what is necessary for health, wellness, welfare, maintenance, and protection for the patient Caring is the active of providing care. Caring is the foundation and framework that a professional nurse must base their practice. The profession of nursing demonstrates caring. Caring unifies the focus and is essential to successful practice.

Jean Watson developed the “Theory of Caring”, in 1975. A nurse needs to care, and the patient must feel the nurse care, in return better patient outcomes will be more

likely to happen. Caring also provides a better environment and calmer work environment. By nurses guiding the practice, their processes tend to have caring moments and caring occasions in their own practice environment. Caring incorporates values which the nurse has and shares with the patient during their stay at the acute care facility. Values of caring must include loving, kindness, and compassion with others. A nurse must be present, in the moment, enabling a faith/hope/love system. A relationship must be trusting and loving to support the theory of caring. The caring process incorporates problem solving and seeking solutions through the process. Nurses must be sensitive to self and others spirituality. Incorporation of spirituality and spiritual practices are necessary when a nurse is fulfilling their role in care. Caring drives ways to improve by utilizing research, practice, and nursing education, (Turkel et al., 2018; Ergezen et al., 2019; Aagard et al., 2018).

For healing to begin the patient must be receptive to care. The patient must develop a trust for the nurse. If the patient senses the nurse cares, then trust occurs. Caring behaviors of the nurse include eye contact, respect, touching, assurance, honesty, sensitivity, and listening to the patient. Caring is composed of humanitarian and materialism, (Watson, 1979, 2002; Sadat et al., 2017; Aagard et al., 2018). Caring can take on differences within the profession of nursing between specific communities and cultures. Knowledge level of the nurse can influence the desire to care and add value to the humanistic side of caring. This can improve care. The behavior associated with caring aligns the nursing interaction with the patient and helps form a relationship. Caring is a process, (Ortiz, 2021; Oluma & Abadiga, 2019).

Health is a human experience that benefits from having caring present. Caring enables the body, mind, and soul to heal. Nurses continue to evolve in their caring based on the demands in health care but must not go away from the foundation of caring, (Koithan et al., 2017). Personalization, participation, and responsiveness of the patient occur when a nurse is caring, (Macphee et al., 2020; Yan et al., 2019; Bangcola, 2021; Ozan & Okumay, 2017).

What is Quality and Quality Care?

Defining quality can be complex and multidimensional when it comes to nursing care. Attempts to define quality may limit the scope or create a bias of the person who tries to define quality. Quality is a characteristic that implies superiority, excellence or a degree of excellence, (Wandelt & Stewart, 1975) Quality car is knowledge, friendliness, and answering questions, and interest in the patient, (Risser, 1975). Others define quality as in the context of degree of merit where the individual has the essential character of care, (Paneuf, 1973). Quality in the form of care can be observed and determined to be excellent. Standards may be used to identify the characteristics of quality and be applied to an individual that is declared to be good by persons or groups of people. Standards are formed from patterns observed in care in actual practices within institutions.

Quality care provided by the nurse is in the forefront of literature currently and in previous decades. Quality care is explored in nursing educational programs and in nursing practice settings. Defining quality care provided by nurses is the focus of clinical research into current nursing practice, (Chance, 1980, 1997). Defining quality care,

nurses who are at the bedside do not always define quality of nursing care. “Research related to the meaning, definition, and perception of quality of nursing care has been limited”, (Burhans & Alligood, 2010). Quality of care can be modeled in an organization. Staff nurses could use accountability, autonomy, daily evaluation, and patient outcomes. These are concepts, that nurses can use in self-reflection to identify quality of care. Nurses are only a small part to the overall measurement of quality of care, (Burhans & Alligood, 2010; George & Haag-Heitman, 2015; Koy et al., 2017). Many areas of health care have developed their own ideas of what quality and quality of care should be. Recent research explores nurses’ perception of quality of care and quality of nursing care. More attention should be paid to nursing outcomes of job satisfaction, (Lui& Aungsuroch, 2017). Understanding quality care is applicable to nursing and the extension of quality of care is quality of nursing care.

Quality of nursing care is a national goal and national accrediting agencies use guidelines to define quality of nursing care. There are competencies defined by Quality Safety Education for Nurses (QSEN). These competencies are patient-centered-care, teamwork, collaboration, quality improvement, informatics, evidence-based practice, and safety. The competency is used to identify quality of nursing care by addressing or preventing events that lead to patient harm while they are in the hospital, (Pinto & Ferreira 2017; Sherwood & Nickel, 2017; Stalter & Mota, 2017). Additional complications while the patient is in the hospital can be deemed as poor-quality nursing care, (Copanitsanou et al., 2017; Croenwett et al., 2007; Nygardh et al., 2016; Pinto & Ferreira, 2017). The complications in the hospital that affect quality of nursing care are patient falls, nosocomial infections, and pressure ulcers. These are specific to the acute

care setting, not necessarily including specialty units. Quality of nursing care is composed of care that is protective and makes a difference in patient outcomes, (Montalvo, 2007; Ghahramanian et al., 2020). The National Database of Quality Nursing Indicators, (NDNQI), address events that occur due to process and patient outcomes. Quality of nursing care is application for practicing nurses as meeting the needs of humans through caring, being empathetic, respectful and intentionally with interactions, and being an advocate, (Burhans & Alligood, 2010).

What is Change?

When implementing a change in practice to improve quality of care it is important to consider change theory. Individuals and groups of individuals are influenced by restraining forces, or obstacles that counter driving forces to keep things stable. Quality of nursing care cannot evolve without the changes in the work environment and overall improvement in health care. A redesign is needed to stay current and provide the best-practiced care. Lewin's three-step change model is often used to transform the care provided at the bedside which is the role of the nurse, (Lewin, 1951). Quality improvement can only occur if nurses are a part of the processes to force change. Lewin's theory addresses change and supports change. Nurses have the ability and knowledge to identify processes at the bedside that do not work. They can have input in what does not work, suggest how a change to overall improve quality of nursing care. Nurses can brainstorm and have a voice in what is necessary to facilitate the change. Changes are implemented by sharing the research, initiate the change, and then evaluate the change.

Change also is a process that incorporates transition. Nursing is in a constant state of transition. The three stages of transition are end, losing, and letting go, (Bridges, 1991) Transitions starts with an ending of the old process. This is applicable to the nurse work environment and how quality of nursing care can improve. People identify what they are losing and how they manage losses. Through continuous input of the bedside nurse, assessment of what is working can be kept and what makes the nurse's work more difficult can be changed. These include processes, relationships, team members, and work locations. The second stage is Neutral Zone. After letting go of the processes that do not work, nurses and other staff are at an in between in discovering that old is gone and the new is not fully operational. New processes are being created and possible new roles are being created. This adds additional stress to the work environment and may cause a decrease in quality of nursing care until the process is fully in action. The third stage of transition is New Beginnings. There is an energy released when starting a new process to do things. If transitions are handled correctly and well managed, then the work environment will be positive, and quality of nursing care can improve patient outcomes. Transition by management must follow a process for transition to be successful:

1. Communication with the organization about why the change is needed.
2. Collecting information from those affected by the change to understand its impact on them.
3. Doing an audit of the organizations' transition readiness.
4. Educating leaders about how the change will affect individuals in the organization to manage the transition effectively.

5. Monitoring the progress of individuals as they go through the three stages of transition.
6. Helping individuals understand how they can positively contribute to the change and the importance of their role in the organization.

   (Bridges, 1991)

Change must occur not only with input of the bedside nurse, but leadership must be organized and supportive of the bedside nurses to develop trust. Kotter's 8 stage change model is the most widely used and address several ways to implement change. Stages include:

1. Create a sense of urgency.
2. Create the guiding coalition.
3. Develop a vision and strategy.
4. Communicate the change vision.
5. Empower broad-based change.
6. Generate short-term wins.
7. & 8. Consolidating gains, producing more change and anchoring new approaches in the culture.

   (LV & Zhang, 2017).

The 8 - stage process is a guide for leadership to implement change. Collective leadership can identify staff engagement at all levels, establish the organizational culture of learning, trust, and create the desire for continuous improvement. Strategies will become well developed, assess the performance and improvement of the organization

overall. The outcome is to create an environment that adapts to changes with continuous structured improvement strategies.

Barriers to change may cause problems when it the plan of implementation is executed. Any form of leadership that implements change will more than likely encounter problems. Barriers to change occur and should be expected within an organization. Identification of those barriers within an organization is important and may be relevant to a specific problem. The most common barrier is the fear of change. For example, a change in a practice, such as cleaning an IV site with an alcohol swab. Thorough research, it was found that infection rates increase due to the nurse not waiting until the alcohol dried prior to connecting a syringe to the IV site to administer medications. Chlorhexidine (CHG) was found to reduce those rates because it dried immediately. The nurses were educated on the change of practice. Fear and anxiety occurred because using the alcohol had always been practiced. It is necessary for staff to learn new skills to stay current, not cause additional stress, and perform quality nursing care. Reactions to the new change may be challenged with resistance and anger. The change may initiate feelings of anxiety. The perspective of the nurse expresses this change in practice adds to the work load and routine that is established. Limited financial means can also be a barrier to change. New equipment and training can be costly. The change may not happen due to funding. Some leaders in the organization may not be ready for the change. This can create a barrier to change. The future of improvements is necessary in order to continue the work environment and the quality nursing care.

Relationship Between Quality of Nursing Care and Work Environment

The importance of exploring the relationship between quality of nursing care and the nurse work environment can improve overall patient care and outcomes. It is important to identify the trends in the nurse work environment, how its effects practice, and the overall effect of quality of nursing care. The goal of this research is to identify a possible relationship and if there is a relationship how to improve quality using the nurse's perspective and alteration of the work environment. The nursing field is dynamic and constantly changing. Nurses are flexible and adapt to the rapidly changing work environment that surrounds them. To improve quality of nursing care, and work environment, a change in practice needs to occur. Each work environment has its own organizational structure. The organizational structures influence the work which nurses perform and the level to which quality of nursing care is performed, (Lui et al., 2021). Quality of nursing care can improve when nurses have input in how they practice. Exploration of quality of nursing care has identified factors in the work environment that impact the level of care the nurse can provide. Factors identified in the work environment are burnout, patient to nurse ratio, and the need for hospital administration to include the nurse in improving the work environment so quality nursing care can be given. When nurses have input, there is a satisfaction in the work role of the nurse, (Bogaert et al., 2017; Min et al., 2021; Burhans & Alligood, 2010; Liu & Aungsuroch, 2018; Liu et al., 2020).

Nurses need to have a good understanding of their work environment in the nursing practice due to having its influence on patient care. Self - awareness is an ongoing intrapersonal, relational, deliberate contextual process of self-discovery,

(Younas et al., 2019; Ghahramanian et al., 2020). The complexity of care the patient population had increased. Multiple comorbidities, technology, patient satisfaction, and positive patient outcomes have increased the pressure of the nurse to perform quality of nursing care, (Halabi et al., 2021; Carthon et al., 2020; Feliciano et al., 2019; Stimpfel et al., 2016). Within the work environment barriers are present which have a negative impact on the quality of nursing care provided by impacting the psyche and function of the nurse in their work role.

Quality of life in work is impacted by multiple influences in the work environment. Nurses will have the ability to provide better quality of care when work environment is positive and supported. Balancing the demands of work and personal life can lead to fatigue, feelings of ill will, burnout and lack of support, (Akter et al., 2019; Rezaee et al., 2020: Fasoi et al., 2020; Schlak et al., 2021). Barriers can hinder the nurse from fulfilling all aspects of job requirements and impact patient outcomes. Negative patient outcomes come in the form of missed care or adverse events during the patient stay. Staffing levels and acuity of patients can lead to missed care. Increased risk of adverse events; pressure ulcers, hospital acquired infections, medication errors, and falls are due to the missed care. Tasks left undone are associated with decreased satisfaction among the profession of nursing and low retention rates. (Palese et al., 2019; See et al., 2019; Liu et al., 2020; Min et al., 2020; Campbell et al., 2019). Missed care is a threat to outcomes of patients, nurses, and health care organizations. Identification of which nursing care activities are frequently missed should guide organizational change in processes to ensure improvement in missed care. Many processes can be modified once reasons are identified for missed care. Successful identification is an organizational

approach and should include all members of the health care team, (Banasco et al., 2020; Campbell et al., 2019). Other barriers in the work place add to the decrease in quality of care.

Moral distress interferes with the care provided by nurses and impacts patient outcomes. Stressful situations occur where nurses are at a high level of exposure. Nurse burnout occurs and motivation to provide quality of care decreases. To promote quality of nursing care according to the nurses' perspectives, barriers need to be removed to provide quality of care, (Yuwanich et al., 2016; Azarm et al., 2017; Ryu & Kim, 2018; White et al., 2019). Hospital environments must be safe for the care providers as well as the patients. Staffing is one variable that has high impact on a safe environment. Differences in the safety and staffing can vary from one practice setting to another. Safety measures in reporting errors, communication, reporting incidence data, and overall perception of patient safety is the responsibility of all members of the health care system, (Gurkova et al., 2019; Aiken, 2019).

Literature has supported patient outcomes are positive in hospitals with safe staffing as defined by the American Nurses' Association. Nurse to patient ratios need to be taken into consideration in order to decrease patient mortality, readmissions, and length of stay. Patient safety and mortality may be impacted with and adverse event. Adverse events are more likely to take place when staffing is not appropriate, (Olds et al., 2017; McHugh et al., 2021).

Purpose

The purpose of this research is to explore quality of nursing care and its relationship to work environment. To understand the relationship and impact on nurse's work, the nurse perspective must be included, and it is necessary. When controlling for sex, age, and level of nursing degree in the acute care setting, what is the relationship between quality of nursing care and nurse work environment from the nurse perspective?

Study hypothesis: When controlling for sex, age, and level of nursing degree in the acute care setting, nurses with a positive work environment are more likely to give good quality of

nursing care than those that do not have a positive work environment.

Path Diagram

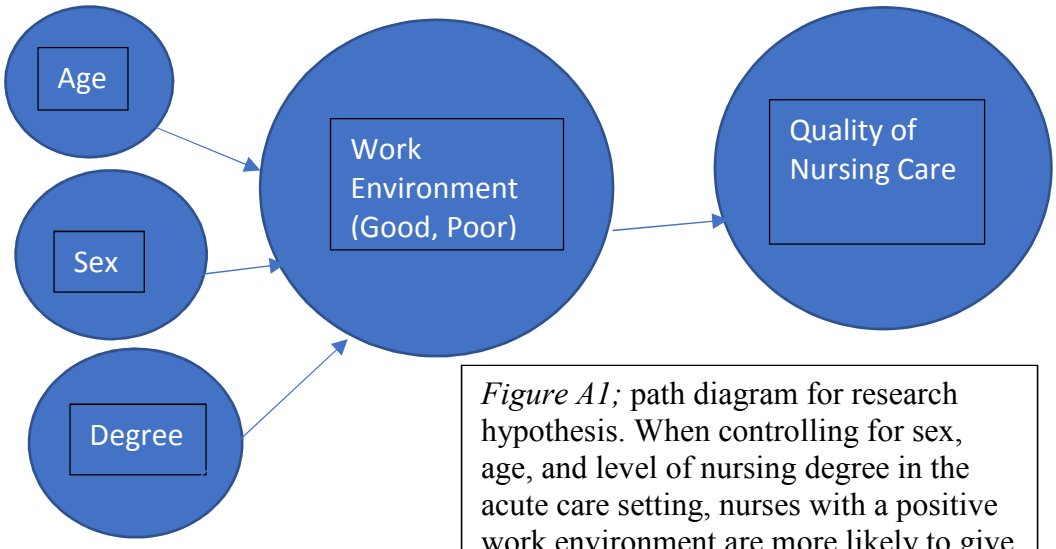


Figure A1; path diagram for research hypothesis. When controlling for sex, age, and level of nursing degree in the acute care setting, nurses with a positive work environment are more likely to give good quality of nursing care than those that do not have a positive work environment

CHAPTER II DEFINING QUALITY OF NURSING CARE AND ITS RELATIONSHIP TO WORK ENVIRONMENT FROM THE NURSE'S PERSPECTIVE A SYSTEMATIC REVIEW

Abstract

Background/Aims There is evidence in literature that supports that quality nursing care is positively related to work environment in the profession of nursing. The purpose of the systematic review is to examine this relationship from the perspective of bedside nurses. The relationship of this connection needs further exploration. This synthesis of literature aims to identify common themes and concepts of quality nursing care.

Methods An integrative literature research was conducted of 300 articles to identify studies and articles that investigate quality nursing care and work environment. Studies were published between January 2000 and January 2022 in CINAHL, PubMed, ProQuest, Research Gate, ScienceDirect, Medline, and R2.

Results A total of 15 studies were included in the final analysis. Six used theoretical frame work to guide their research. Work environment consisted of environmental, organizational, physical and psychological factors. Sample sizes were overall large. Most of the studies identified there was a direct correlation between quality of care and work environment. 3 of the studies included burnout as a direct cause of poor quality of care.

Conclusions Quality of care that nurses provide is influenced by the work environment. The nursing perspective is crucial when identifying and measuring how work environment directly impacts quality of care. Factors of importance are burnout, support

from management, staffing, and teamwork. In order to improve the quality of nursing care, leadership must focus on improving the work environment and utilize bedside nurses' perspectives.

Key Words: Work environment, Management, Nursing care quality, quality-nursing care, competent care, acute-care setting, nursing perspectives, patient outcomes, performance management, nursing processes, work environment, quality of care measurement tools.

Introduction

Patient outcomes and the impact it has on long-term healthcare can be supported with evidence of quality of nursing care. Quality can be defined in many ways. Defining quality of care in nursing can be a diverse approach based on the perspectives of many individuals, including the perspective of nurses. Quality from the nursing perspective is complex and has many variables that influence that perspective. Variables include nursing workload, patient acuity, supportive administration, teamwork within the facility/unit, patient/family conflict, staffing, and overtime shifts.

Quality of nursing practice has been a common theme in nursing literature for many years. It is the foundation that has been investigated to link to positive healthcare outcomes. Measurements of quality of care must include the perspective of the nurse due to the nature of their job being the ones who care for the patients directly. A relationship can be defined by looking at quality of nursing care and positive patient outcomes. The National Database of Quality Indicators (NDNQI) is a research-based list of benchmarks

that indicate quality of care through positive patient outcomes. This database is composed of nursing sensitive indicators, reports back, and distributes the information to the organizations to evaluate nursing care and performance improvement. The NDNQI is a voluntary organization where the program is structured to evaluate nursing care, (Montalvo, 2007).

Patient outcomes has been identified as being the determining factor when looking at characteristics of the nursing providing care and competent nursing care in the acute care setting. There must be a minimum standard of care to ensure that there are positive outcomes in patient care. Competent care includes the standards of being professional, ethical, and be adjusted to patient needs. (Tonnessen et al., 2020). It is a challenge to define quality of nursing care and competent nursing care. Exploring the research, many areas of health care have developed their own ideas of what quality, competent and what is deemed as being good care. The care nurses provide is composed of care that is protective and makes a difference in patient outcomes, (Ghahramanian et al, 2020). Quality nursing is application for practicing nurses as meeting the needs of humans through caring, being empathetic, intentionally, respectful with interactions, and being an advocate, (Burhans & Alligood, 2010). Nursing work which incorporates care is influenced by the work environment.

Nursing work takes place in different settings such as acute care, community care, home care, extended care, and within offices. Each environment has its own organizational structure. These organization structures influence the work which nurses perform and the level to which nurses' delivery quality of care, (Lui et al., 2021). The quality of care can improve when nurses have a say in how they practice. The purpose of

this systematic review is to explore the literature of quality of nursing care and its relationship to work environment from nurses' perspectives and how it is measured. Recent research explores nurses' perception of quality of nursing care. Factors identified that influence quality of care are work environment, burnout and patient to nurse ration. It will be helpful if hospital administration would pay more attention to nurse outcomes of job satisfaction, (Bogaert et al., 2017; Min et al., 2021; Burhans & Alligood, 2010; Liu & Aungsuroch, 2018; Liu et al, 2020).

Methods

The following steps were taken in order to develop the review, (Davis et al., 2014). An integrative analysis was carried out to ensure a systematic review. An electronic search of the literature published from January 2000-January 2022 was performed using CINAHL, PubMed, ProQuest, Research Gate, ScienceDirect, Medline, and R2 databases. Key search terms included 'Work environment', 'management', 'nursing care quality', 'quality-nursing care', 'competent care', 'acute-care setting', 'nursing perspectives', 'patient outcomes', 'performance management', 'nursing processes', 'work environment, 'quality of care measurement tools.

Use of Whittemore and Knafle, (2005) established criteria for selecting the reviews and studies to be included;

- Be published in English
- Include nurses in their study sample
- Be sent on an acute care setting (adapted from general hospital ward)

- Investigate the impact of work environment on quality of nursing care
- Use a quantitative research design
- Be peer reviewed

Selection of reviews and articles at first were selected based on titles of the research. Afterwards, all the papers were reviewed that were significant. Additional papers were selected from the references of those papers to consider additionally. The final list was then selected for inclusion in this systematic review. Ethical approval was not needed for this study.

Figure B1

Systematic Literature Review Process Quality of Nursing and Its Relationship to Work Environment from The Nurse's Perspective

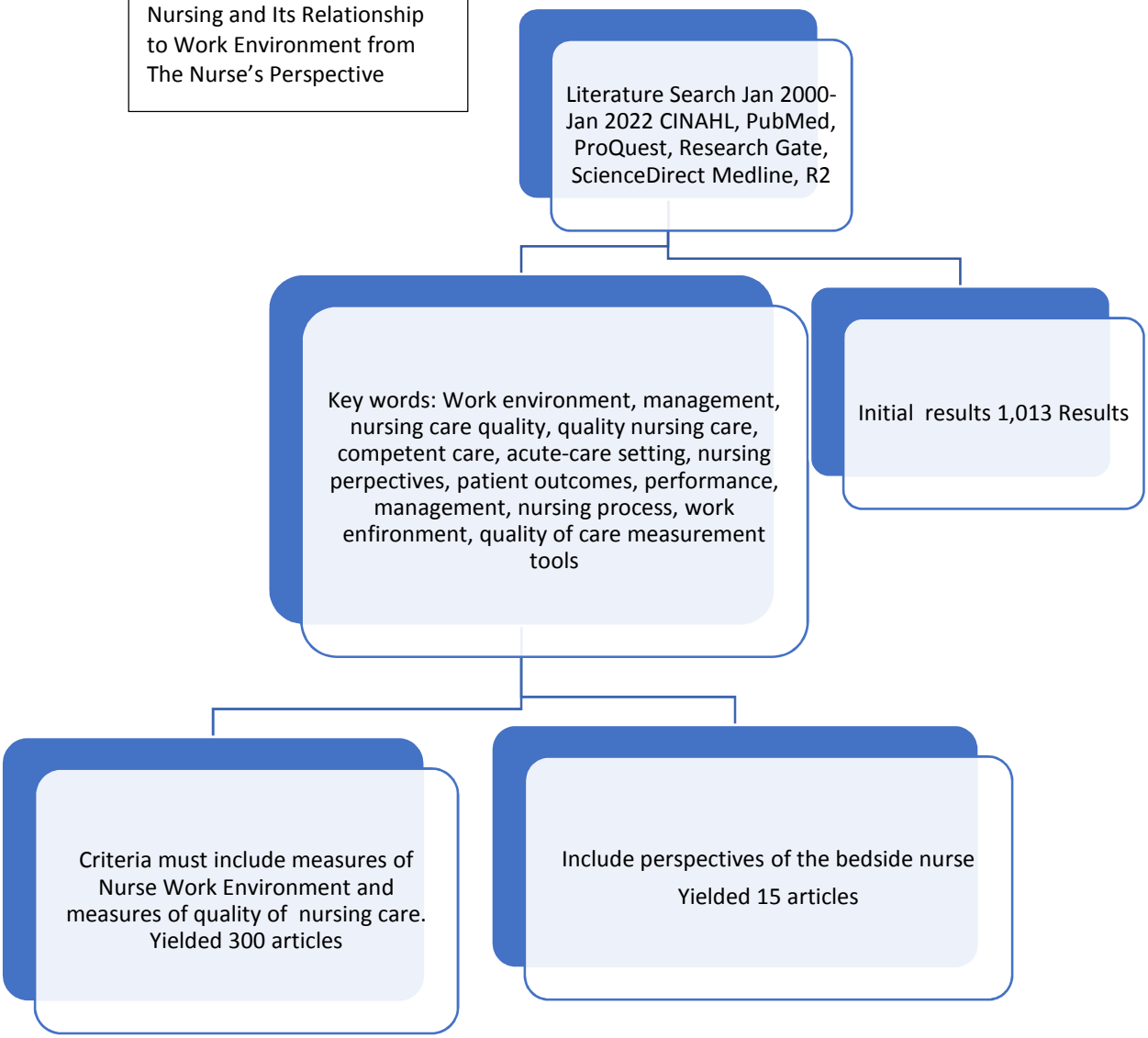


Table B1

Characteristics of Work Environment and Quality of Nursing Care

Study	Rate	Number	Random	Measure Environment	Measure Quality of Nursing Care	Nursing Perspectives	Cronbach's alpha value
Aiken et al 2013	64	33679	Yes	Characteristic of Environment	X	Yes	Not mentioned
Aiken et al 2012	62.0	61168	Yes	PES-NWI	X	Yes	Not mentioned
Mrayyan 2006	66.0	361	Yes	NPES Nurse Practice Environmental scale	McCains Behavioral Health Scale	Yes	NPES=0.85 MBHS=0.75
Boonpracom et al 2018	96.2	916	Yes	PES-NWI	HCHAPS	Yes	PES-NWI=0.96 HCAHPS=0.93
Lucero et al 2009	52	10,184	Yes	PES-NWI	QHOM	Yes	Not mentioned
Nanstupawatt et al 2011	92	5,247	Yes	PES-NWI	MBI-HSS	Yes	PES-NWI= 0.85-0.91 (5 categories
Sermeus et al 2011	Unknown		Yes	PES-NWI	X	Yes	PES-NWI: 0.71-0.84
Liu and Aungsuroch 2017	94.9	510	Yes	C-PES	CNAQNCS	Yes	C-PES: 0.91 CNAQNCS: 0.97
Anzai et al 2013	65.7	341	No	PES-NWI	A single item developed by Aiken et al (2012)	Yes	PES-NWI; 0.77-0.84
Park et al 2018	Unknown	1583	Yes	PES-NWI	NDNQI	Yes	Not mentioned

Ma et al 2015	<50.0	179052	No	PES-NWI	NDNQI	YES	PES-NWI; 0.94
You et al 2013	95.0	9688	Yes	PES-NWI	A single item developed by Aiken et al (2012)	YES	Not mentioned
Djukic et al 2013	68.0	1439	Yes	The 98 Questions Survey	The 98 Question Survey	Yes	>0.70
Weldetsadik et al 2019	Unknown	171	Yes	PES-NWI	X	Yes	PES-NWI: 0.75-0.92
Cho et al 2020	74	2114	Yes	Not Known	MISSCARE	Yes	MISSCARE;0.88

PES-NWI =*The Practice Environment Scale of the Nursing Work Index;* C-PES=*The Chinese Version of the Practice Environmental Scale;* HCHAPS= *Hospital Consumer Assessment of Healthcare Providers and Systems;* QHOM=*Quality Health Outcomes Model;* MBI-HSS=*Maslach Burnout Inventory-Human Services Survey;* CNAQNCS=*Chinese Nurse Assessed Quality of Nursing Care Scale;* NDNQI=*National Database of Nursing Quality Indicators;* MISSCARE=*Missed Nursing Care Survey*

Results

The search results yielded more than 1,013 abstracts and titles. After the initial screening, 300 were considered potentially relevant. Reviewing the 300 articles with criteria included in the research only 15 were deemed to meet the inclusion criteria. All studies published were between 2006 and 2020. Quantitative studies that were included in the analysis gave Cronbach's alpha values of between >0.70 and 0.97. This indicates high reliability of the studies. Response rates to the surveys administered were between 50.0% and 96.20%. Three of the surveys did not reveal the participation percentage.

Sample sizes were large, (172-179052), and representative of bedside nurses. Each article broke down the representation in the sample size. The 15 studies all included components of work environment that impacted the role or care provided by the nurse. Each of the studies included used the nurses' perspective of quality of nursing care. The impact of the work environment also added to the stress, burnout, and missed care that affects the quality of nursing care. The research suggests that there are several components in the work environment that impact quality of care, (Aiken et al 2012; Mrayyan et al, 2006; Liu & Aungsuroch, 2017; Cho et al., 2020). Work environment surveys explored the concepts of administrative support, teamwork, work load, patient acuity, collaboration, and job satisfaction. Nurses' perceptions were included in each article addressed the quality of care that was provided to their patients through safety and patient outcomes.

Discussion

This systematic review demonstrates that there is a relationship between the quality of nursing care provided and the work environment from the perspective of nurses. The impact of the work environment also added to the stress, burnout, and missed care that affects the quality of nursing care. This review recommends that hospital administration and leaders foster a better work environment that provide better outcomes to patients through quality nursing care. Interventions to improve quality of care can be developed by using the nurses' perspectives and how the organizations they work for can improve the work environment. The common goal is positive patient outcomes and satisfaction of bedside nurses.

Resources are needed and must be readily available for nurses to support their role as the patient caregiver. Having a better work environment allows the nurse to focus on the health and safety of the patient, thus giving quality of care, (Aiken et al., 2012; Park et al., 2018; Ma et al., 2015). Studies that identified supportive administration as an influence on nursing care, revealed that there were improved patient outcomes, (Djukic et al., 2013; Lucero et al., 2009; Park et al., 2018; Weldetsadik et al., 2019).

Nurse burnout is a contributing factor to poor quality of care and improving the work environment will lessen the burnout, (Mrayyan 2006; Nanstupawatt et al., 2011; Cho et al., 2020). The variations in environment which nurses work can contribute to this

burnout if they are not situated on one work environment. It is difficult to standardize a work environment between different organizations due to the population served. Interventions to improve work environments must include the complete organization and the type of unit that nurses role. The expectations should match the culture of the organization.

Work environments change constantly based on needs of the population. Nurses must be included in the interventions to stabilize the work environment so quality nursing care can be provided. Design of future research examining relationships between quality nursing care and work environment should identify and track the changes in the work environment and the impact it has on nursing care.

Limitations

The studies used did use common or the same measurement criteria for nursing work environment but not necessarily the same portion or questions from the measurement tool. Four studies did not list a measurement tool to measure quality of nursing and used questions created specifically to nursing quality, (Aiken et al., 2013; Aiken et al., 2012; Sermeus et al., 2011; Weldestadik et al., 2019). Establishing relationships between the two concepts of quality of nursing care and the work environment, the theoretical framework can provide those rationales to test the relationships. Majority of the studies did not include a theoretical framework. Several of these articles are from other countries and may not necessarily be applicable to practice in the US. Additional research may be required to address specific problems and specific interventions at each facility.

Conclusions

This review identifies that there is a direct relationship between the quality of nursing care and work environment. Work environmental factors that impact the quality of nursing care identified include patient acuity, support of management, adequate staffing, and overall support from the organization. Quality of nursing care and the perception of the nurses at the bedside directly impact positive patient outcomes. Work environment and improved quality patient care will only improve those patient outcomes and provide the bedside nurses motivation to provide quality care.

Conflict of Interest

The author declares there is no conflict of interest.

CHAPTER III QUALITY OF NURSING CARE AND ITS RELATIONSHIP TO WORK ENVIRONMENT PRE-COVID AND POST-COVID SURVEY FROM NURSES' PERSPECTIVES

Abstract

Background/Aims Quality of nursing care is positively related to work environment. There is evidence in the literature that supports quality of nursing care is impacted by the dynamics of a work environment and exploring the impact of the COVID-19 pandemic. The purpose of this study is to examine the perceptions of the bedside nurse related to quality of care, work environment, relationships within their work facilities, management support, pre and post COVID-19.

Objective To obtain nurses' perception of their idea of quality of nursing care and identifying the impact or relationship that the work environment influences their ability to provide quality of nursing care. Comparing survey responses pre-COVID to post-COVID in quality of nursing care and its relationship to work environment.

Design Cross-sectional survey of 83 current and recent retired bedside nurses and a survey of 104 post COVID-19 pandemic that are current bedside nurses.

Methods First survey was administered pre-COVID-19. Questions related to quality of nursing care and components of the work environment. The survey was administered through a Survey Monkey link through Facebook social media. Second survey used same questions related to quality of nursing care and components of the work environment. Additional COVID-19 questions added to survey of quality of care nursing and its

relationship to work environment. Survey was administered through a Qualtrics link through a list serv of hospitals and social media, (Facebook, Twitter, LinkedIn, and Instagram).

Results Findings of this study identified themes supportive of literature. Work environment has impact on the nurse's ability to perform quality of care nursing and COVID-19 pandemic created an additional stressor on work environment and quality of nursing care. Themes identified were burnout, inability to care for patients, there was a lack of support by administration, work environment was a safety risk to the patient, there was a lack of collaboration with physician, and one answered with all themes. Only two respondents were satisfied currently with practice.

Conclusions Bedside nurses pre-COVID-19 survey mostly identified that the work environment impacts quality of nursing care. Quality of nursing care had decreased due to the work environment. Work environment prior to COVID-19 was more positive but not lacking the stressors that have been identified on both surveys. Staffing, management support, patient acuity, and organizational culture were identified as stressors in the work environment. COVID-19 increased stressors in the work environment that lead to a decrease is quality of nursing care, burnout, missed care, and decreased job satisfaction.

Key words quality of nursing care, nursing perspectives, patient outcomes, performance management support, nursing processes, work environment, caring theory, change theory and quality of care measurement tools, COVID-19

Introduction and Background

Nursing work environment has become one of the determining factors whether quality of nursing care is provided in the acute care setting. Determination of quality of nursing care is linked to positive patient outcomes, (Aiken et al., 2011; Aiken et al., 2012: Izumi et al., 2010) The focus of quality of nursing care are the patients in the acute care setting. Nurses are the ones that provide care and many factors affect the nurse's ability to provide quality of care, (Smith et al., 2018; Kear & Ulrich 2018; Norman & Sjetne, 2017). Nurses over the last decade have faced challenges when it comes to patient care and the current state of health care. Nurses are working with patients that are aging and more complex with increasing co-morbidities. It is important when faced with these challenges, work environment is conductive to nurses providing quality of nursing care. Nurses must have input on how care is provided and what processes will help the work environment which they work, (Anzai et al., 2014; Bagley et al. 2011; Martins & Perroca, 2017; Ryu & Kim, 2018). As the population increases, the need for hospitalization increases. Changes in the work of the nurses may help decrease the stress in the work environment, improve quality of nursing care and improve patient outcomes, (Woo et al., 2017; You et al., 2019; Martins & Perroca, 2017; Buljac-Samardzic & Woerkom, 2018).

Quality of nursing care that a nurse provides is impacted by the variables in the work environment. The overall impact of that relationship impacts patient outcomes. Literature supports that there is a positive connection when quality of nursing care is negative, the work environment tends to be negative. Nurses feel supported and have access to what is needed on the job then nurses provide quality of care. The goal is providing safe care and good patient outcomes, (Ara et al., 2015; Mulutininovic' et al., 2012; Stanik-Hutt et al., 2013; Aiken et al., 2014; Aiken, 2019; George & Haag-Heitmen,

2015). Nurses are primarily responsible for majority of the patient care. It is important to explore the relationship between quality of care, nurses' perceptions of their work environments and how that influences patient outcomes. The goal of this research is to identify if there is a relationship with the nurses' work environment and the quality of care provided. This study will use the nurses' perspective and how they can play a role in improving the overall work environment to provide quality of care.

The purpose of the first study is to explore the work environment, which nurses work in, how they meet the demands of the work environment, and their perception of how the work environment impacts the quality nursing care. By identifying the variables related to a work environment, nurses could improve the quality nursing care they provide which would give patients a better outcome. Many situations the acute care setting is busy and constantly changing. Patients come and go at a rapid pace and nurses continuously adjust their priorities. Nurses also must meet the care demands of higher acuity patients and the decreasing nurse workforce.

In the last several years healthcare has faced many challenges. Nurses at the bedside are the primary caregivers and have experienced a lot of those challenges, frontline, (rising nursing shortages, increased stress, economic crisis, feeling unappreciated). In recent years literature supports that quality of nursing care has a relationship to the work environment. If quality of nursing care is poor or lacking, then the patient may have poor outcomes. Overwork and overstressed nurses tend to struggle providing basic needs an may even miss basic care of patients, (Crowe et al, 2021; Laschinger et al, 2012). There are many variables that lead to missed care, a decrease in quality of nursing care and in return a negative impact on patient outcomes.

Nursing turnover is an example of impacting an organization's quality of nursing care of a patient. When isolation to nurse turnover there are three factors. First, characteristics that nurses have must match the industry so that they have a qualified work force. It is important that the organization nurses work for match what currently is needed in health care. Second, the turnover is costly and impacts quality of nursing care. It is widespread and healthcare needs to identify and intervene to reduce nurse turnover. Nurse turnover has impacted quality of nursing care and has impacted patient outcomes, (Aiken et al., 2002; Aiken et al., 2002; Waldman et al., 2004; Nei et al., 2015). It is important to identify the history of nurse turnover and its precursor to the continuing problem due to the COVID-19 pandemic.

Exploring the additions stressor of the COVID-19 pandemic, has produced a decrease in quality of nursing care related to the negative impact of work environment. Nurses play a vital role in the care of patients during the COVID-19 pandemic. The organizations depend on the nurse to understand COVID-19, how to provide quality of care, and recognize the drastic change in workflow. The weakness of quality of nursing care is due to the nursing shortage, lack of face-to-face education and training, and decreased nursing care, (Lee et al., 2021). The work of nurses significantly changed by reorganization of the nursing work system. Nurses are responsible of the work system and managing the personal infrastructure of patient care. Nurses controlled the care center for COVID-19 and adjusted their workspace so they could provide safe care by separating clean and infected areas. Nurses were charged with directing communications, coordinating materials for emergencies, continuous care, improving the efficiency of care, and being their own support through a stressful environment, (Lee et al., 2021; Lake

et al., 2021; Ulrich et al., 2020). The COVID-19 pandemic has caused a reinforcement of the work environment concerns and its relationship to proving quality of nursing care.

The purpose of the second study was to explore the work environment post COVID-19 and how nurses' perceptions were impacted when it comes to their ability to provide quality of nursing care. By identifying the variables that were present prior to COVID-19 causing a negative work environment, and the responsibility that nurses had to face during the pandemic, has the work environment improved.

Data and methods

Upon approval of the Institutional Review Board, the first study (s1), participants were recruited from the social media site Facebook by posting the Survey Monkey link, utilizing contacts that were current registered nurses that worked at the bedside or retired from bedside nursing less than one year. A total of 83 individuals completed the informed consent and survey materials. The second study (s2) were recruited from a list serv of clinical partners and social media Facebook, Twitter, LinkedIn with a survey link and/or QR code. The survey utilized the same questions as the first study and additionally included questions addressing COVID-19 assessing the impact on work environment and job role on the organization where nurses worked. A total of 101 bedside nurses responded.

There were questions on the survey that asked about gender, age, ethnicity, nursing degree and years of experience. When asked about gender, 95.18%(s1), 93.48% (s2), identified as female, 3.61% (s1), 6.52% (s2), male, and 1.20% (s1), prefer not to

state. Most participants 60.24% (s1), 70.93% (s2) were 18-44, 24.20% (s1), 11.62% (s2), were age 45-54, and less than 16% (s1), 18.80% (s2), were age 55 or older. Race and ethnicity, most identified as Caucasian 93.98% (s1), 95.70% (s2), 1.20% (s1), 1.08% (s2), were Black or African American, 1.20% (s1), 1.08% (s1), were Hispanic or Latino, 2.41% (s1), 1.08% (s2), were Asian or Asian American, 1.20% (s1), indicated other race but did not specify. American Indian or Alaska Native 1.08% (s2).

Education levels were; Master's degree or higher, 13.25% (s1), 19.35% (s2). Most participants 92% (s1), 69.89% (s2), indicate that they have a bachelor's degree in nursing or higher, 14.46% (s1), 7.53% (s2), are Associate degree, and 3.61% (s1), 3.23% (s2) are Diploma nurses. Those currently working, 87.95% identified working fulltime, 6.02% working part-time, and 6.02% per diem. Years of experience is an open response item. Out of 83 participants 1 reported no years of experience and 1 participant did not answer. Most participants answered 98.69%. 14.63% identified as < 1 year, 45.12% 1-10 years, 10.9% 11-20 years, 21 or more years reported 28.04%. Survey 2 indicated range of years of experience less that 1 year -25+years, <1yr, 4.3%, 1-10 years, 53.76%, 11-20years, 29.03%, 21 or more years, 17.21%.

Table C1
Characteristics of Nurses

	S 1 # (%)	S2 # (%)
Number of Nurses	83	109
Age 18-44yrs	50 (60.24)	70 (64.22)
Age 45-54yrs	20 (24.09)	27 (24.77)

Age 55yrs and older	13 (15.66)	12 (11.01)
Male	3 (3.61)	7 (6.42)
Female	79 (95.18)	102 (93.58)
Prefer not to answer	1 (1.20)	
Race/Ethnicity		
White/Caucasian	78 (93.98)	101 (92.66)
Black/African American	1 (1.20)	3 (2.75)
Hispanic/Latino	1 (1.20)	2 (1.83)
Asian/Asian American	2 (2.41)	2 (1.83)
American Indian or Alaska Native	0	1 (.92)
Asian/Asian American	1 (1.20)	0
Other		
Degree	3 (3.61)	5 (4.59)
Diploma	12 (14.46)	9 (8.26)
Associates	57 (68.67)	77 (70.65)
Bachelors	11 (13.25)	18 (16.51)
Masters and above		
Current Work status		
Full time	73 (87.95)	92 (84.40)
Part time	5 (6.02)	11 (10.09)
Per Diem	5 (6.02)	5 (4.59)
No answer		1 (.92)

S1=Survey 1; S2=Survey 2

RN Perception. RN perception of the work environment questions using questions to measure the perception of nurses in relation to their environment. Survey statements identify factors related to practice on “primary unit”. Other factors measured are

relationships, communication, teamwork, leadership, disagreement conflict, and preparedness for common patient problems. Each of the 14 primary unit factors were measured on a four-point scale “Strongly disagree” (0) to “Strongly agree” (3), where higher score indicated that their environment was positive. Each of the 3 relationship and communication factors were measured on a four-point scale “Strongly disagree” (0) to “Strongly agree” (3), where higher score indicated that relationships and communication were positive. Each of the 4 teamwork and leadership were measured on a four-point scale “Strongly disagree” (0) to “Strongly agree” (3), where higher score indicated that teamwork and leadership were positive. Each of the 10 disagreement and conflict factors were reverse scored on a four-point scale to “Strongly agree” (0) to “Strongly disagree” where the higher score indicate positive work environment.

Other questions used survey items looked more into environment as satisfaction, but some items identified positive influences are care quality. Nursing shortage on the front-line items asked the shortage is worse than 5 years ago, the shortage is not as bad as five years ago there has been no change. Positive influence on ability to provide quality care investigated incorporates safety practices, engagement of the team members, the use of an electronic health record, effective leadership, and staffing levels.

The first survey explores a relationship between the work environment and the quality of care nurses provide. It is a survey with questions in relation to primary unit, leadership, teamwork, collaboration, disagreement, conflict, positive influences on quality care, and patient problems. Items 1 through 13 are on a four-point scale from “Strongly agree” (1) to “Strongly disagree” (0). The higher the score the positive the environment. Items 15 through 18 are on a four-point scale from “Strongly agree” (0) to

"Strongly disagree" (1). Items 20 through 24 are on a four-point scale from "Strongly agree" (0) to Strongly disagree" (1). The higher the score the higher satisfied with unit. Items 26 through 35 rate the levels of positive influence on a five-point scale from "A great deal of influence" (1) to "None at all' (0). The higher the score the positive influence. Patient problem items were divided into two sections one frequency of problem and how prepared the nurse was in caring for patient problems Frequency on a four-point scale from "Never" (0) to "All of the time" (1). The higher the score the more frequent the nurse caring was exposed to the patient problem. Preparation for the problem is on a six- point scale from "Not prepared at all" (0) to "Very well prepared" (1). The higher the score the more prepared the nurse.

The second survey uses the same assessment questions as survey one and has an additional section that uses impact of COVID-19 questions. Items 1 through 2 are on a four-point scale from "No Impact" (0) to "High" (3). Items 3 through four identify the greatest challenges to protocol, resources, or operations that the organization has faced as a result of the COVID-19 pandemic and staffing changes. Both impact the nurse's ability to provide quality nursing care.

Figure C1

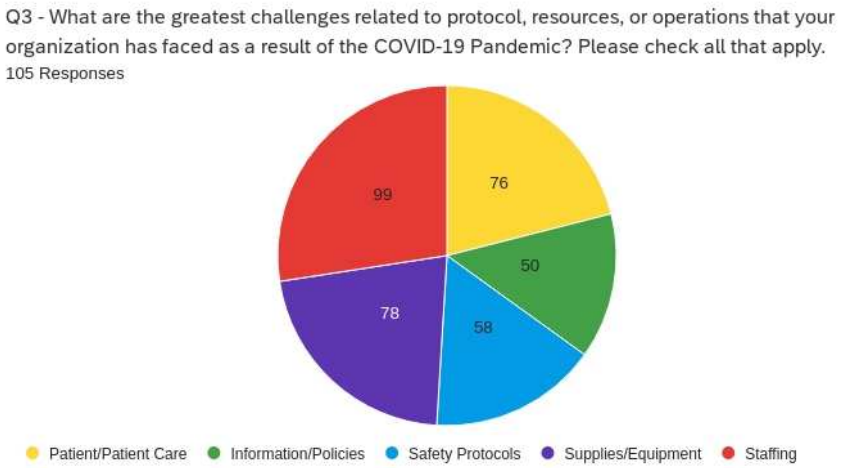
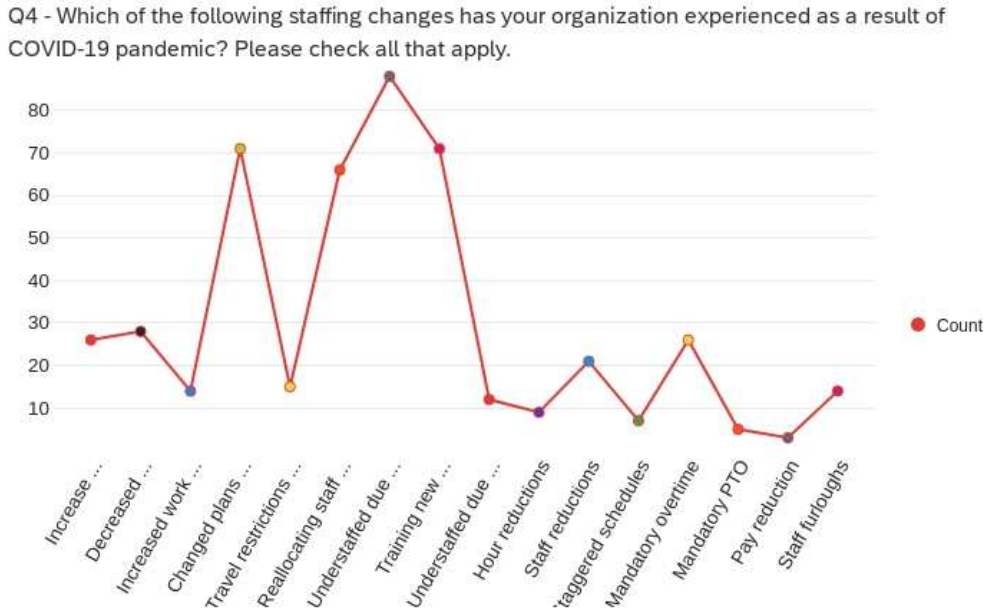


Figure C2 Staffing



Data Analysis

Data from the first survey was cleaned, validated, and analyzed using IBM SPSS v 27. A priori criteria set to analyze data included that 90% of the questions, including the demographics section, were completed. Data were analyzed as a descriptive study reporting patters of response to questions of quality care measures and environmental questions. The design is cross sectional and examining the time prior to COVID-19 pandemic. Findings pre-COVID identified important factors in the literature that nurses identified in the survey response of positive influence on their ability to provide quality nursing care. The top practices were safety practices where 83.95% reported there was a strong or very strong impact. Other practices indicated a strong or very strong impact were, engagement of team members at 68.67%, effective leadership 77.11%, staffing levels 68.67%, skill mix on unit 68.68%, interprofessional collaboration 72.29%, and organizational culture, 62.65%. Identifying in the literature that the nursing shortage has impact on quality care, pre-COVID only 37.35% of participants that the nursing shortage is worse than five years ago. The percentage of participants stating that the shortage is not as bad five years ago, there has been no change, or I am not sure is 62.65%.

The primary unit that nurses work on in their organizations were mostly satisfied with the environment 86.75% were moderately or very satisfied. The overall satisfaction of teamwork and leadership 81.93% were moderately or very satisfied. The overall disagreement/conflict 58.53% were moderately or very satisfied. Themes emerged from comments, identification of low staffing, increased workload, non-supportive management, patient to nurse ratios, safety, healthcare is only about money supported in

the literature as reasons why nurses have difficulty providing quality nursing care based on work environment. Cross tabulation was not performed on the first survey data.

The second survey used environmental and RN perspective questions from the first survey. Data were cleaned, validated, and analyzed using Qualtrics, (Provo, Utah). A priori criteria set to analyze data that 90% of the questions including the demographics section were completed. Data was analyzed as a descriptive study reporting patters of response to questions of quality care measures and environmental questions. Cross tabulations were performed to identify the relationship between environmental and nurses' perceptions of quality nursing care. COVID-19 questions were also included. Control variables in this survey were gender, age, and degree of nursing. Control variables chosen were based upon research but did not have a significance in this survey.

Question 6 on the survey explored overall satisfaction relating to items on the unit impacting care, there was a significant relationship <0.1 with impact of COVID-19 on the organization and the role of the nurse, on overall teamwork/leadership and overall clinical practice of the nurse. Question 11 on survey 2 addresses the level of positive influences of certain work environment items and the nurse's ability to provide quality nursing care to the patient. Each of these items were significant <0.1, safety practices, effective leadership, staffing levels, organizational culture, and leadership diversity. These findings are supported by the literature presented in this study. Specific to the impact on the nursing role during COVID-19identification of significant findings <0.1 identified nurses perceived that leadership was not supportive, time to discuss patient outcomes with other nurses affected quality nursing care given. The direct manager supporting nurses' decision even if it conflicted with the physician was significant <0.1.

Discussion

Through statistical analysis identification of relationships were significant in relating to trends in health care. When comparing the two studies nurses were moderately satisfied overall with the organization's work environment pre-COVID-19. Survey one was administered in March 2020 as the COVID-19 pandemic was declared. The survey collection time was limited to two weeks and administered via Facebook only. Nurses identified practices that influence quality nursing care, if they were positive, then quality nursing care was positive. Those identified were safety practices, effective leadership, staffing levels, organizational culture, and leadership diversity. The control variables of age, gender, or degree were not significance in both surveys. Staffing and nursing shortage had a greater impact post-COVID-19. Only 37.35% identified the nursing shortage was worse than 5 years ago, post-COVID-19 87.78% identified it is worse. A significant insight to the relationship of quality nursing care and work environment were the comments provided at the end. The themes identified in both pre-COVID and post-COVID were burnout, patient care, staffing, support of administration, safety, satisfaction, and collaboration.

Table C2

Comments Pre-COVID-19 and Post-COVID-19 Survey

Themes	Survey 1
Unit	New to unit not familiar with culture yet
Collaboration/Safety	We have one PA who is not cooperative I avoid talking to him or asking him questions unless there is an emergent situation. This does impact my patients and my ablility to care for them at full capacity. All the other doctors and Pas are good for the most part. Our director does not care about her employees and behaves as thou we are all expendable. This is a small rural community hospital, not corporate owned.
Staffing Support of Administration	We are expected to often to do more with less staff, less available equipment, and those making these decisions are about the almighty dollar. We cannot give safe, effective care to our patients. it's sad. Those decision makers are not the ones working at the bedside.
Staffing	Patient to nurse ration on units
Satisfaction	I work on a unit that will close sometimes. I am frustrated
Safety/Unit	In light of COVID-19 there is not enough equipment to safely care for patients and nurses are being forced to follow practices that put their own safety in danger.
Satisfaction/Safety/Staffing Support	Unfortuately, the bottom dollar and fear of backlash are driving daily decisions from administration down to patient care. We

	are forced to spend more time charting than actually doing patient care. Decisions are made without consulting the people actually taking care of the patients. Instead of supporting our team on the floor management spends time in meetings with nothing to show for it. Concerns never leave the office. Our nurses work very hard every day to ensure that patients and families do not feel the repercussions of being short staffed and increased charting requirements. Nursing has changed so much in my 11 years. I love the very core of my job but as a whole, healthcare has lost its patien-family centered focus and became money hungry/stingy business.
Support of Administration/Satisfaction	Leadership did not care that we could not go to bathroom or get something to eat. Our patients were 24/7 care. It seemed to be about money. Experience means nothing. It is sad.
Patient Care	A better care environment means better care.
Collaboration	Would like to see this expanded to other staff
	Survey 2
Safety	We have recently been indicated with violent pts and psych pts at our ER. Not only verbally abusive but physically as well. It's getting so bad we are losing long time nurses due to this. Something has to be done.
Safety	I left because it is unsafe.
Safety/Support of Administration	I feel that the hospital waited too long to hire and train RNs and are now behind the eight ball.

	They run the hospital on bare bones, staffing levels and are scrambling now that we have RNs retiring early. I am tired of working 60-hour work weeks. The salaries need to be raised to attract smart individuals to pursue nursing as a career.
Safety.Support of Administration	There is a disconnect from leadership and their staff. Don't listen to keep nurses to stay. No incentives to stay, people leave to find clinic jobs or travel. This leads to staff shortages loss of experienced nurses. The turnover rate is high. Handful of staff has less than 3 years' experience. I affects patient safely.
Staffing/Satisfaction Patient Care	The largest deficit is staffing and time. Without team work and adequate staffing I do not have the resource of time to care for patients the way they deserve to be cared for. This will always impact my role satisfaction because I did not go to school to be an "okay nurse"
Burnout	COVID ruined healthcare in my opinion.
Burnout/Staffing	Burnout rates are high. There are less staff and more travelers. Not enough techs, on call days are mandatory overtime, float to other units a lot. Shortage of supplies. Thinking about leaving the bedside. Putting more and more on us without supporting us. I am close to my breaking point.
Burnout/Staffing/Support of Administration	Nurse leaders do not recognize burnout. No back up plans for call outs, to cover staffing so quality nursing care can be provided. Cross training of departments is very limited and at

	best and does not allow for team work in the event of staffing shortages.
Burnout/Staffing	Nurses feel unappreciated, overworked, and underpaid. Since COVID the list of things to do has increased pay increases and more mental health resources are made readily available, nurses will continue their mass exiting.
Support of Administration Staffing/Safety/Patient Care	Nurses are only given negative reinforcement and no support with staffing shortages. This makes it incredibly difficult to show up to work and provide safe patient care.

Themes are Unit, Safety, Patient Care, Support of Administration, Burnout, Staffing, Collaboration

Limitations

Survey one and survey two, the nurses who responded to surveys were mostly White/Caucasian females. This does not give an adequate representation of the nursing work force. Utilizing list serv through clinical partners were challenging. Many did not want to add additional nurses with additional data responsibilities. Unable to determine how many were distributed throughout the process. Agreement among hospitals and

health care agencies on how quality nursing care is defined must identify concepts and utilize the input of nurses. Trends in healthcare mask overall arching problems.

Conclusion

The findings confirm that the nurses' perspectives need to be considered when addressing quality nursing care and its relationship to the work environment. The concepts in this study reinforce the literature that nurses perceive that staffing, lack of support from management, burnout, turnover, and safety are factors that influence the quality care they took an oath to provide. Work environments must improve in all areas of health care, particularly at the bedside. Patient safety and positive outcomes cannot be achieved until that is completed. Nurses do not feel empowered and have the perception of not being appreciated. There is a lack of motivation and feelings of frustration, that most nurses give patient care, but it may not be deemed as quality nursing care.

Conflicts of interest

There are no conflicts of interest.

CHAPTER IV CONCLUSION

Nurses face many challenges when trying to provide quality nursing care. Many aspects of the work environment impact the level to which nurses perceive giving quality nursing care. Stressors in the work environment such as, staffing, communication, resources, acuity of patient care, collaboration, support of management and an unexpected pandemic can decrease the quality nursing care provided. Nurses who are primarily responsible for patient care must have a voice in how the work environment is set up and how their continuous assessment of the work environment can produce positive outcomes for the patient population. High quality nursing care is the goal not only of the organizations that nurses work for but are the goal for the nurses who work at the bedside. The culture of nursing is to keep the work environment positive, so patients have good outcomes. Nurses know the environment in which they work in and are flexible in providing care. The difficulty is the constantly changing environment and the additional stressor of the COVID-19 pandemic, (Lasater et al., 2021; Stemmer et al., 2021; Aiken et al., 2018; Gunther & Alligood, 2002; Kear & Ulrich, 2018).

The consequences of a work environment that is not supportive of quality nursing care, impacts not only the organizations, but healthcare and patient outcomes. In order to understand how quality nursing care impacts patient outcomes, one must address the cause of nurses not providing quality care. Concepts that impact quality nursing have been identified in the literature and through this project. Nurses identified that support of

administration, burnout, safety, teamwork, workload, staffing and not feeling valued contributed to their difficulty in providing quality nursing care, (Ahlstedt et al., 2019; Aiken et al., 2002; Akter et al., 2019; Bogaert et al., 2017; Razee et al., 2020; Fasoi et al., 2020; Schlack et al., 2021).

Negative patient outcomes can happen including missed care and adverse events during hospitalization. An increase in adverse events including falls, pressure ulcers, hospital acquired infections, and medication errors are a consequence of care that may not be provided by the nurse because of work environment stressors. If tasks are left undone, then the patient is negatively impacted. Undone tasks are associated with nurse decreased satisfaction and a negative association of the job overall, (Palese et al., 2019; See et al., 2019; Liu et al., 2020; Min et al., 2020; Campbell et al., 2019).

The organization which the nurse works for must be supportive in order to provide a full positive work environment and give quality nursing care. Identification of the downfalls in the environment must be a group effort and include the nurses at the bedside. Additional barriers that are a part of the organization may be unknown by the nurse at the bedside and only shared with direct management. Unfinished care and moral distress can be included in environmental influences when working with patient, family members, other co-workers and administration. These barriers must be reduced and removed so the nurse can provide quality care, (Yuwanich et al., 2016; Azarm et al., Ryu & Kim 2018). Quality Safety Education of Nurses QSEN, (IOM, 2003 and National Database of Nursing Quality Indicators NDNQI, (Montalvo, 2007), are the hospitals standards that nurses are measured to identify quality nursing care currently. These tools look at hands on physical assessment or problems due to care nurses provide. There are

other measuring tools that are used such as HCHAPS, which also has a customer service approach to evaluation as satisfaction.

Exploring the research and using nurses at the beside is key to changing healthcare for the future. Practice grounded in theory, gives a strong foundation and calls for action. Change is a multiple step process and takes months, even years to implement. Having buy in of all organizational staff can lead to successful strong and safe environments for all involved. Change in practice is necessary to improve quality of nursing care and improving patient outcomes. The work environment must be stable so nurses can concentrate on the safety and application of quality nursing care, (Lewin, 1951). Change in processes and change in environment must be supportive and involve care, only then can improvement in healthcare improve.

The main objective of this project was to examine the relationship of quality nursing care and work environment. The project also explored how the COVID-19 pandemic changed or altered the perspectives of nurses when it came to quality nursing care and its relationship to the work environment.

The purpose of the first article, the systematic review, explored the literature supporting how nurses defined quality nursing care and how it was measured. Keeping, in mind that measuring quality nursing care cannot be generalized due to the nature of the environment to which nurses work. Many organizations that nurses work in tend to evaluate quality nursing care in different ways. Each of the environments need to explore patient outcomes. Work environment is measured in several ways. Work environment impacts quality nursing care. Each organization needs to use the nurses' perspectives as the work environment is being evaluated. It was found that common themes of measuring

work environment used PES-NWI scale which measures the nursing practice environment. Exploring factors that enhance or attenuate a nurse's ability to practice nursing skillfully and deliver high quality care. This scale is used more than any other work environmental scale. The other tools utilized look at characteristics of work environment they have components of the PES-NWI scale. Tools used to identify how to measure quality of nursing or quality nursing care were more varied depending on the organization nurses were employed. McCaines Behavioral Health Scale and MBI-SS addressed mental health components of the nursing staff in relation to the quality nursing care that was provided. HCHAPS, QHOM, MISSCARE, and the NDNQI were more focused on the aspects of patient outcomes to measure quality nursing care. Each of the articles in the systematic review used the nurses' perspectives when exploring quality nursing care and its relationship to work environment. The measurement tools that were reported had a Cronbach's alpha of 0.70 and higher which indicates that the scales were reliable and there was internal consistency.

The purpose of the second article explored quality nursing care and its relationship to work environment to pre-COVID-1. A survey was administered, and data collected March and April 2020. A second survey was included exploring quality nursing care and its relationship to work environment post-COVID-19. Nurses that worked as a bedside nurse or recently worked a bedside nurse and addressing the COVID-19 pandemic impact on quality nursing care and its relationship to the work environment. Pre-COVID-19 nurses were moderately satisfied with work environment and support from management. The perception that staffing related to the nursing shortage was only 37.5% worse than five years ago. Comparing perceptions of the nursing shortage of being

worse than five years ago, post-COVID-19, nurses stated 87.78% was worse. The common theme of environmental factors of burnout, lack of support of management, staffing, patient acuity, and safety lead to perception of decreased quality nursing care. Often, time to provide or the ability to discuss patients with other nurses cannot occur due to the increased responsibility that nurses have since the COVID-19 pandemic. Nurses' perspectives in the results of this study identified there is a relationship of quality nursing care and work environment. Nurses must continuously be a part of the evaluation of the work environment and be included in the changing processes to ultimately optimize quality nursing care and promote positive patient outcomes.

Future Directions

This project is contribution to current literature that addresses the quality nursing care and its relationship to the work environment. Further direction of identification of conceptualizing and standardizing what makes a nurse provide quality care is necessary. Nurses must have input in the processes to change work environment and advocate for positive patient outcomes. Expansion of this research is necessary to be a part of the education of undergraduate nurses and training these individuals on concepts of quality nursing care. Exposure of what is deemed as quality nursing care, and how students can be a part of the positive change of the work environment, can lead to an improvement of the overall health care system. The expansion of administrative support is necessary for nurses to have a better work environment. Health care cannot evolve without the improvement of work environment or processes that improve environment.

Nurses must become more involved in professional organizations and recruit members to grow. Nursing education of undergraduates must incorporate in professionalism courses, the impact of not being supported by administration and professional organizations. Without support, the nursing work environment will become stagnant and fail. Failure of work environment impacts quality of nursing care and ultimately harm the patients that nurses take an oath to protect.

Recommendations for future, a solution to improving health care must come from nurses. The action needs to start with administration and work backwards. Hospitals are a business but staff including nurses, must be in the forefront and planning the success of the organization. The second recommendation is to have major more political influence and presence at the federal level. Decisions made must use research, education, and the expertise of nurses to improve the overall outcome of patients.

In summary, nurses are the change factor in improving healthcare. Buy in must occur from administration, all the way down to the patients that are in the hospital facilities. Quality nurses are patient advocates and deserve a safe, positive, work environment to ensure positive patient outcomes. Quality nursing care is the foundation which nurses are "called" to perform. When nurses graduate from their training, there is an oath that is spoken and the primary content is, "do no harm".

I solemnly pledge myself before GOD and in the presence of this assembly, to pass my life in purity, and to practice my profession faithfully.

I will abstain from whatever is deleterious and mischievous, and will not take, or knowingly administer any harmful drug.

I will do all in my power to maintain and elevate the standard of my profession, and will hold in confidence all personal matters committed to my keeping and family affairs coming to my knowledge in the practice of my calling. With loyalty will I endeavor to aid the physician in his work, and devote myself to the welfare of those committed to my care.

(Nightingale, 1935).

Project References

Aagard, M., Papadopoulos, I., Biles, J. (2018). Exploring Compassion in U. S. Nurses: Results from an International Research Study. *Online Journal if Issues in Nursing, 23,* 1-10. https://doi.org/10.3912/OJIN.Vol23No01PPT44

Ahlstedt, C., Lindvall, C., Holmstron, I., Athlin, A. (2019). What makes registered nurses remain in work? An ethnographic study. *International Journal of Nursing Studies, 89,* 32-38. https://doi.org/10.1016.2018.09.008

Aiken, L., Clarke, S., Sloane, D., Sochalski, J., Silber, J. (2002). Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction. *Journal of the American Medical Association, 288,* 1987-1993.

Aiken L., Clarke, S., Sloane, D. (2002). Hospital staffing, organization, and quality of care: cross-national findings. *International Journal for Quality in Healthcare, 14,* 5-14. https://doi.org/10.1093/intqhc/14.1.5

Aiken, L., Cimiotti, J., Sloan, D., Smith, H., Flynn, L., Neff, D. (2011). Effects of Nurse Staffing and Nurse Education on Patient Deaths in Hospitals With Different Nurse Work Environments. *Medical Care, 49,* 1047-1053. http://doi.org/161.45.215.132

Aiken, L., Sermeus, W., Heede, K., Sloane, D., Busse, R., McKee, M., Bruyneel, L., Rafferty, A., Griffiths, P., Moreno-Casbas, M., Tishelman, C., Scott, A., Brzostek, T., Kinnunen, J., Schwendinmann, R., Heinen, M., Zikos, D., Sjetne, I., Smith, H., 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. *British Medical Journal, 344,* 1-14. https://doi.org/10.1136/bmj.e1717

Aiken, L., Sloane, D., Bruyneel, L., Van Den Heede, K., Sermeus, W. (2013). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies, 50,* 143-153. http://dx.doi.org/10.1016/j.ijnurstu.2012.11.009

Aiken, L., Sloane, D., Griffiths, P., Rafferty, A., Bruyneel, L., McHugh, M., Maier, C., Moreno-Casbas, T., Ball, J., Ausserhofer, D., Sermeus, W.

Aiken, L., Rafferty, A., Sermeus, W. (2014). Caring nurses hit by a quality storm. *Nursing Standard, 28,* 22-25. https://doi.org/10.7748/ns2014.04.28.22.s26

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

Aiken, L., Sloan, D., Giffiths, P., Rafferty, A., Bruyneel, L., McHugh, M., Maier, C., Moreno-Casbas, Ball, J., Ausserhofer, D., Sermeus, W. (2017). Nursing skill mix

in European hospitals: cross-sectional study of the association with mortality, patient ratings, and quality of care. *British Medical Journal of Quality and Safety, 26,* 559-568. http://dx.doi.org/10.1136/bmjqs-2016-005567

Aiken, L., Ceron, C., Simonetti, M., Lake, E., Galiano, A., Garbarini, A., Soto, P., Bravo, D., Smith, H. (2018). Hospital Nurse Staffing and Patient Outcomes. *Revista Medica Clinica Las Condes, 29,* 322-327. https://doi.org/10.1016/j.rmclc.2018.04.001

Aiken, L., Sloane, D., Barnes, H., Cimiotti, J., Jarrin, O., McHugh, M. (2018). Nurses' and Patients' Appraisals Show Patient Safety in Hospitals Remains A Concern. *Health Affairs, 37,* 1744-1751. https://doi.org/10.1377/hlthaff.2018.0711

Aiken, L. (2019). Nurse Work Environment the Key Patient Safety Original emphasis lost within patient safety movement. *Relias Media, Interview*

Akter., N., Akter, M., Turale, S. (2019). Barriers to quality of work life among Gangladeshi nurses: A qualitative study. *International Nursing Review, 66,* 396-403.

Smeds-Alenius, L., Tishelman, C., Lindqvist, R., Runesdotter, S., McHugh, M. (2016). RN assessment 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://dx.doi.org/10.1016/j.ijnurstu.2016.06.005

American Nurses' Association, ANA, (2022).

Andersson, I., Lindgren, M. (2013). Perceptions of nursing care quality, in acute hospital settings measured by the Karen instruments. *Journal of Nursing Management, 21,* 87-93. https://doi.org/10.1111/jonm.12011

Anzai, R, Douglas, C., Bonner, A. (2013). Nursing practice environment, quality of care, and morale of hospital nurses in Japan. *Nursing and Health Sciences, 16,* 171-178. https://doi.org/10.1111/nhs.12081

Ara, B., Thokchom, S., Bhardwaj, U. (2015). Quality of Nursing Care Rendered by Staff Nurses and Patients Satisfaction: a Comparative Study. *International Journal of Nursing Education 7,* 95-100. https://doi.org/10.5958/0974-9357.2015.00081.1

Aylett, K. (2019). Study Offers Insight Into State of Nurses' Work Environments: Most recent national survey of critical care nurses identifies positive outcomes of implementing the AACN Health Work Environment Standards *PRNewswire,* Retrieved from https://ezproxy.mtsu.edu/login?url=https://www.proquest.com/wire-feeds/study-offers-insight-into-state-nurses-work/docview/2183291242/se-2?accountid=4886

Azarm, A., Hansanlo, M., Ansari, M. Mohammadi, F., Ebrahimi, H., Jafarabadi, M. (2017). Moral Distress and the Nursing Care Quality: A correlational Study in Teaching Hospitals. *Health, Spirituality, and Medical Ethics, 4,* 38-47.

Bachnick, S., Ausserhofer, D., Baernholds, M., Simon, M. (2018). Patient-centered care, nurse work environment and implicit rationing of nursing care in Swiss acute care hospitals: A cross-sectional multi-center study. *International Journal of Nursing Studies, 81,* 98-106. https://doi.org/10.1016/j.ijnurstu.2017.11.007

Bagley, C., Abubaker, M., Sawyerr, A. (2018). Personality, Work-Life Balance, Hardiness, and Vocation: A Typology of Nurses and Nursing Values in a Special Sample of English Hospital Nurses. *Administrative Sciences, 8,* 1-21. https://doi.org/10.3390/admsci8040079

Bagnasco, A., Catania, G., Zanini, M., Dasso, N., Rossi, S., Aleo, G., Timmins, F., Sermeus, W., Aiken, L., Sasso, L. (2020). Are data on missed nursing care useful for nursing leaders? The RN4CAST@IT cross-sectional study. *Journal of Nursing Management, 28,* 2136-2145. https://doi.org/10.1111/jonm.12129

Ball, J., Bruyneel, L., Aiken, L., Sermeus, W., Sloane, D., Rafferty, A., Lindqvist, R., Tishelman, C., Peter Griffiths, P., RN4Cast Consortium. (2018). Post-operative mortality missed care and nurse staffing in nine countries: A cross-sectional study. *International Journal of Nursing Studies, 78,* 10-15. https://dx.doi.org/10.1016/j.ijnurstu.2017.08.004

Bangcola, A. (2021). The development of Spiritual Nursing Care Theory using deductive axiomatic approach. *Belitung Nursing Journal, 7,*163-170. https://doi.org/10.33546/bnj.1456

Bogaert, P., Peremans, L., Heusden, D., Verspuy, M., Kureckova, V., Cruys, Z., Franck, E. (2017). Predictors of burnout, work engagement, and nurse reported job outcomes, and quality of care: a mixed method study. *BioMed Central Nursing, 16,* 1-14. https://doi.org/10.1186/s12912-016-0200-4

Boonpracom, R., Kunaviktikul,W., Thungjaroenkul, P., Wichaikhum, O., (2019). A causal model for the quality of nursing care in Thailand. *International Nursing Review, 66,* 130-138. https://doi.org/10.1111/inr.12474

Boyer, L., Pepin, J., Dubois, S., Descoteaux, R., Robinette, L., Dery, J., Brunet, F., Bolduc, J., Deschenes, M. (2020). Adaptation and validation of a nursing competencies framework for clinical practice on a continuum of care from childhood to adulthood: A Delphi study. *Nurse Education Today, 93,* 1-8. https://doi.org/10.1016/jnedt.2020.104530

Bridges, W. (2022) https://wmbridges.com/about/what-is-transition/

Buljac-Samardzic, M., van Woerkom, M. (2018). Improving quality and safety of care in nursing homes by team support for strengths use: A survey study. *PLos One, 13,* :e0200065. https://doi.org/101371/journal.pone.0200065

Burhans, L., Alligood, M. (2010). Quality nursing care in the words of nurses. *Journal of Advanced Nursing, 66,* 1689-1697. https://doi.org/10.1111/j.1365-2648.2010.05344.x

Campbell, C., Pranpanjaroesin, A., Anusiewicz, C., Baernholdt, M., Jones, T., Patrician, P. (2020). Variables associated with missed nursing care in Alabama: A cross-sectional analysis. *Journal of Nursing Management, 28,* 2174-2184. https://doi.org/10.1111/jonm.12979

Carthon, J., Brom, H., Poghosyan, L., Daus, M., Todd, B., Aiken, L. (2020). Supportive Clinical Practice Environments Associated with Patient-Centered Care. *The Journal for Nurse Pracitioners, 16,* 294-298. https://doi.org/10.1016/j.nurpra.2020.01.019

Carthon, J., Hatfield, L., Bron, H., Houton, M., Kelly-Hellyer, E., Schlak, A., Aiken, L. (2020). System-Level Improvements in Work Environments Lead to Lower Nurse Burnout and Higher Patient Satisfaction. *Journal of Nursing Care Quality, 36,* 7-13. https://doi.org/10.1097/NCQ.0000000000000475

Chance, K. (1980,1997) The quest for quality: an exploration of attempts to define and measure quality nursing care. 1980. *Image Journal of Nursing Scholarship, 29,* 326-329. https://doi.org/10.1111/j.1547-5069.1997.tb01046.x.

Cho, S., Lee, J., You, S., Song, K., Hong, K. (2019). Nurse staffing, nurses prioritization, missed care, quality of nursing care, and nurse outcomes. *International Journal of Nursing Practice, 26,* 1-9. https://doi.org/10.1111/ijn.12083

Copanitsanou, P., Fotos, N., Brakalaki, H. (2017). Effects of work environment on patient and nurse outcomes. *British Journal of Nursing, 26,* 172-176.

Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., Sullivan, D., Warren, J. (2007). Quality and safety education for nurses. *Nursing Outlook, 55,* 122-131. https://doi.org/10.1016/j.outlook.2007.02.006

Crowe S., Howard, A., Vanderspank-Wright, B., Gillis, P., McLeod, F., Penner, C., Haljan, G. (2021). The effect of COVID-19 pandemic on the mental health of Canadian critical care nurses providing patient care during the early phase pandemic: A mixed method study. *Intensive & Critical Care Nursing, 63,* 1-8, https://doi.org/10.1016/j.iccn.2020.102999

Davis, J., Mengersen, K., Bennett, S., Mazerolle, L. (2014). Viewing systematic reviews and meta-analysis in social research through different lenses. *SpringerPlus, 3,* 1-9. http://www.springerplus.com/content/3/1/511

van Dischoeck, M., Looman, C., Styerberg, E., Halfens, R., Mackenbach, J. (2016). Performance indicators: the association between the quality of preventative care and the prevalence of hospital-acquired skin lesions in adult hospital patients.

Djukic M., Kovner, C., Brewer, C. (2013). Work environment factors other than staffing associated with nurses' ratings of patient care quality. *Health Care Manager Review, 38,* 104-114. https://doi.org/10.1097//hmc.0b013e3182388cc3

Dubois, C., D'Amor, D., Pomey, M., Girard, F., Brault, I. (2013). Conceptualizing performance of nursing care as a prerequisite for better measurement: a systematic and interpreted review. *BioMed Central, 12,* 1-20.

Ergezen, F., Bozkurt, S., Dincer, H., Kol, E. (2019). Patients Perceptions of Knowledge, Trust, and Connectedness in Nurses' Caring Behaviors. *Arastirma Research, 17,* 155-161. https://doi.org/10.5222/HEAD2020.24650

Fasoi, G., Patsiou, E., Stavropoulou, A., Kaba, E., Papageorgiou, D., Toylia, G., Goula, A., Kelesi, M. (2020). Assessment of Nursing Workload as a Mortality Predictor in Intensive Care Units (ICU) Using the Nursing Activities Score (NAS) Scale. *International Journal of Environmental Research and Public Health, 18,* 1-12. https://dx.doi.org/10.3390/ijerph18010079

Feather, J., McGillis, L., Russell, K., Trvbovich, P., Baker, G. (2018). An integrative review of nurses' prosocial behaviours contributing to work environment optimization, organizational performance and quality of care. *Journal of Nursing Management, 28,* 769-781. https://doi.org/10.1111./jonm.12600

Feliciano, E., Feliciano, A., Feliciano-Pena, L., Mejia, P., Osman, A. (2019). Competency of Nurses in the Context of Phillipine Healthcare. *International*

Journal of Caring Sciences, 12, 1402-1409. https://www.internationaljournalofcaringsciences.org

George, V., Haag-Heitman, B. (2015). Peer Review in Nursing: Essential Components of a Model Supporting Safety and Quality. *Journal of Nursing Administration, 45,* 398-403. https://doi.org/10.1097/NNA.0000000000000221

Ghahramanian, A., Rassouli, M., Zamanzadeh, V., Valizadeh, L., Asghari, E. (2020). Good nursing care: Rodgers' evolutionary concept analysis. *Nursing Practice Today, 7,* 12-20. https://searchebscohostcome.ezproxy.mtsu.edu/login.aspx?direct=tru&db=ccm&AN=141123586&site=eds-live&scope=site.Acessoem:23june.2022

Gunther, M., Alligood, M. (2002). A discipline-specific determination of high-quality nursing. *Journal of Advanced Nursing, 38,* 353-359. https://doi.org/10.1046/j.1365-2648.2002.02201.x

Gurkova, E., Zelenfkova, R., Friganovic, A., Uchmanowicz, I., Jarosova, D., Papastavrou, E., Ziakova, K. (2020). Hospital safety climate from nurses' perspective in four European countries. *International Nursing Review, 67,* 208-217. https://doi.org/10.1111/inr.12561

Halabi, J., Nilsson, J., Lepp, M. (2021). Professional Competence Among Registered Nurses Working in Hospitals in Saudia Arabia and Their Experiences of Quality of Nursing Care and Patient Safety. *Journal of Transcultural Nursing, 32,* 425-433. https://doi.org/10.1177/1043659621992845

Ispir, O., Duygulu, S. (2017). The Control over Nurse Practice Scale: Reliability and Validity of the Turkish Version of the Instrument. *International Journal of Caring Sciences, 10,* 647-656. https://doi.org/10.1111/ijn.12935

Izumi, S., Braggs, J., Knaft, K. (2010). Quality Nursing Care for Hospitalized Patients With Advanced Illness: Concept Development. *Research in Nursing & Health, 33,* 299-315. https://doi.org/10.1002/nur.20391

Delioette, Joint Commission. (2020). COVID-19 Lessons Learned A Resource for Recovery. *Joint Commission Resources*

Kear, T., Ulrich, B. (2018). A Window into the World of Nephrology Nursing: Nephrology Nurses' View of the Health and Safety of the Work Environments, the Impact on Patient Care and Opportunities for Improvement. *Nephrology Nursing Journal, 45,* 437-449.

Koithan, M., Kreitzer, M., Watson, J. (2017). Linking the Unitary Paradigm to Policy through a Synthesis of Caring Science and Integrative Nursing. *Nursing Science Quarterly, 30,* 262-268. https://doi.org/10.1177/0894318417708415

Koy, V., Yunibhand, J., Angsuroch, Y. (2016). The quantitative measurement of nursing care quality: a systematic review of available instruments. *International Nursing Review, 63,* 490-498

Koy, V., Yunibhand, J., Angsuroch, Y., Turale, S. (2017). Development and Psychometric Testing of the Cambodian Nursing Quality Care Scale. *Pacific Rim International Journal of Nursing Research, 21,* 267-279.

Lake, E., Narva, A., Holland, S., Smith, J., Cramer, E., Rosenbaum, K., French, R., Clark, R., Rogowski, J. (2021). *Journal of Advanced Nursing, 78,* 799-809. https://doi.org/10.1111/jan.15013

Lasater, K., Aiken, L., Sloane, D., French, R., Martin, B., Reneau, K., Alexander, M., McHugh, M. (2021). Chronic hospital nurse understaffing meets COVID-19: and observational study. *British Medical Journal of Quality & Safety, 30,* 639-647. https://doi.org/10.1136/bmjqs-2020-011512

Laschinger, H., Grau, A. (2012). The influence of personal dispositional factors and organizational resources on workplace violence, burnout, and health outcomes in new graduate nurses: A cross-sectional study. *International Journal of Nursing Studies, 49,* 282-291. https://doi.org/10.1016/j.ijnurstu.2011.09.004

Lee, J., Cho, H., Shin, S. (2021). Nursing strategies for the post-COVID-19 era. *International Nursing Review, 68,* 149-152. https://doi.org/10.1111/inr.12653

Lewin, K. (1951) Field Theory in Social Science: Selected Theoretical Papers (ed. Cartwrigh,D). New York: Harper & Row

Lindgren, M., Andersson, I. (2011). The Karen instruments for measuring quality of nursing care: construct validity and internal consistency. *International Journal for Quality in Health Care, 23,* 292-301. https://doi.org/10.1093/intqhc/mzq092

Liu, Y., Aungsuroch, Y. (2018), Factors influencing nurse-assessed quality nursing care: a cross sectional study in hospitals. *Journal of Advanced Nursing, 74,* 935-945. https://doi.org/10.1111/jan.13507

Liu, Y., Aungsuroch, Y., Gunawan, J., Sha, L., Shi, T. (2020). Development and psychometric evaluation of a quality nursing care scale from nursing perspective. *Nursing Open, 8,* 1741-1754. https://doi.org/10.1002/nop2.816

Liu, X., Liu, J., Liu, K., Baggs, J., Wang, J., Zheng, J., Wu, Y., Li, M., You, L. (2021). Association of changes in nursing work environment, non- professional tasks, and nursing care left undone with nurse job outcomes and quality of care: A panel study. *International Journal of Nursing Studies, 115,* 1-8. https://doi.org/10.1016/j.ijnurstu.2020.103860

Lu, H., Zhao, Y., While, A. (2019). Job satisfaction among hospital nurses: A literature review. *International Journal of Nursing Studies, 94,* 21-31. https://doi.org/10.1016/j.ijnurstu.2019.01.011

Lucero, R., Lake, E., Aiken, L. (2009). Variations in nursing care quality across hospitals. *Journal of Advanced Nursing, 65,* 2299-2310. https://doi.org/10.1111/j.1365-2648-2009.05090.x

Lv, C., Zhang, L. (2017). How can collective leadership influence the implementation of change in health care? *Chinese Nursing Research, 4,* 182-185. https://doi.org/10.1016/j.cnre.2017.10.005

Ma, C., Olds, D., Dunton, D. (2015). Nurse work environment and quality of care by unit types: A cross-sectional study. *International Journal of Nursing Studies, 53,* 1565-1572. https://dx.doi.org/10.1016/j.ijnurstu.2015.05.011

MacPhee, M., Waller, D., Fitzgerald, B., Li, C., Havaei, F., Larmet, J., Budz, B., Taverner, T. (2020). Nursing Care Delivery Redesign Using the Right Data to

Make the Right Decisions. *Nursing Leadership, 33,* 21-37. https://doi.org/10.12927/cjnl.2020.26240

Martins, P., Perroca, M. (2017). Care necessities: the view of the patient and nursing team. *Rev Bras Enferm, 70,* 1026-1032. http://dx/doi.org/10.1590/0034-7167-1026-0197

McHugh, M., Aiken, L., Eckenhoff, M., Burns, L. (2016). Achieving Kaiser Permanente quality. *Healthcare Management Review, 41,* 178-188. https://doi.org/10.1097/HMR.0000000000000079

McHugh, M., Aiken, L., Sloane, D., Windsor, C., Douglas, C., Yates, P. (2021). Effects of nurse-to-patient ratio legislation on nurse staffing and patient mortality, readmissions, and length of stay: a prospective study in a panel of hospitals. *Lancet, 397,* 1905-1913. https://doi.org/10.1016/S0140-6736(21)00768-6

Min, A., Kim, Y., Yoon, Y., Hong, H., Kang, M., Scott, L. (2021). Effects of Work Environments and Occupational Fatigue on Care Left Undone in Rotating Shift Nurses. *The Journal of Nursing Scholarship, 53,* 126-136. https://doi.org/10.1111/jnur.12604

Montalvo, I. (2007). The National Database of Nursing Quality Indicators. *The Online Journal of Issues in Nursing, 12,* 1-12.

Mrayyan, M. (2009). Differences of hospitals' organisational climates and nurses' intent to stay: Nurses' perspectives. *Journal of Research in Nursing, 14,* 465-477. https://doi.org/10.1177/1744987108094813

Milutinovic, D., Simin, D., Brkic, N., Brkic, S. (2012). The patient satisfaction with nursing care quality: the psychometric study of the Serbian version of PSNCQ

questionnaire. *Scandinavian Journal of Caring Sciences, 26,* 598-606. https://doi.org.10.1111/j.1471-6712.2012.00969.x

Nanstupawat, A., Nanstupawat, R., Kunaviktikul, W., Turale, S., Poghosyan, L. (2015). Nurse Burnout, Nurse-Reported Quality of Care, and Patient Outcomes in Thai Hospitals. *Journal of Nursing Scholarship, 48,* 83-90. https://doi.org/10.1111/jnu.12187

Nei, D., Snyder, L., Litwiller, B. (2015). Promoting retention of nurses: A meta-analytic examination of causes of nurse turnover. *Health Care Management Review, 40,* 237-253. https://doi.org/10.1097/HMR.000000000000025

NDNQI A Press Ganey Survey Solution (2018). 2018 NDNQI RN Survey with Practice Environment Scale.

Nightingale, Florence (1935). https://www.truthaboutnursing.org/press/pioneers/nightingale_pledge.html#gsc.tab=0

Norman, R., Sjetne, I. (2017). *BioMed Central, 16,* 1-15. https://doi.org/10.1186/s12912-017-0256-9

Nygardh, A., Sherwood, G., Sandberg, T., Rehn, J., Knutsson, S. (2017). The visibility of QSEN competencies in clinical assessment tools in Swedish nurse education. *Nurse Education Today, 59,* 110-117. http://dx.doi.org/10.1016/jnedt.2017.09.003

Olds, D., Aiken, L., Cimiotti, J., Lake, E. (2017). Association of nurse work environment and safety climate on patient mortality: A cross-sectional study. *International Journal of Nursing Studies, 74,* 155-161. http://dx.doi.org/10.1016/j.ijnurstu.2017.06.004

Oluma, A., Abadiga, M. (2020). Caring behavior and associated factors among nurses working in Jimma University specialized hospital, Oromia, Southwest Ethiopia, 2019. *BioMed Central, 19,* 1-7. https://doi.org/10.1186/s12912-020-0407-2

Ortiz, M. (2021). Best Practices in Patient-Centered Care: Nursing Theory Reflections. *Nursing Science Quarterly, 34,* 322-327. https://doi.org/10.1177/08943184211010432

Oshodi, T., Bruneau, B., Crockett, R., Kinchington, F., Nayar, S., West, E. (2019). The nursing work environment and quality care: Content analysis of comments made by registered nurses responding to the Essentials of Magnetism II scale. *Nursing Open, 6,* 878-888. https://doi.org/10.1002/nop2.268

Ozan, Y., Okumus, H., (2017). Effects of Nursing Care Based on Watson's Theory of Human Caring and Coping, When Fertility Treatment Fails: A Randomized Controlled Trial. *Journal of Caring Sciences, 6,* 95-109. https://doi.org/10.15171/jcs.2017.010

Palese, A., Bassi, E., Tommasini, C., Vesca, R., Falco, A., Lucia, P., Mulloni, G., Paoletti, F., Rissolo, R., Sist, L., Sanson, G., Guardini, L., Vressan, V., Mesaglio, M., Papastavrou, E., Blackman, I. (2019). Developing policies and actions in response to missed nursing care: A consensus process. *Journal of Nursing Management, 27,* 1492-1504. https://doi.org/10.1111/jonm.12835

Park, S., Hanchett, M., Ma, C. (2018). Practice Environment Characterstics Associated with Missed Nursing Care. *Journal of Nursing Scholarship, 50,* 722-730. https://doi.org/doi.101111/jnu12434

Pinto, V., Ferreira, S. (2017). Indicators for the assessment of the quality of nursing care: a descriptive-exploratory study. *Online Brazilian Journal of Nursing, 16,*140-151.

Rezaee, N., Ghaljeh, M., Salar, A. (2020). Barriers to Providing High-Quality Nursing Care in an Intensive Care Units: A Qualitative Study. *Medical Surgical Nursing Journal, 9,* 1-7. https://doi.org/10.5812/msnj.110265

Risser, N. (1975). Development of an instrument to measure patient satisfaction with nursing care in a primary care setting. *Nursing Research, 24,* 45-52.

Ryu, J., Kim, K. (2018). The influence of nursing care integration services on nurses' work satisfaction and quality of nursing care. *Journal of Nursing Management, 26,* 1023-1032. https://doi.org/10.1111/jonm.12629

Sadat-Hoseini, A., Khosropanah, A. (2017). Comparing the concept of carin in Islamic perspective with Watson and Parse's nursing theories. *Iranian, Journal of Nursing and Midwifery Research, 22,* 83-90. https://doi.org/10.4103/ijnmr,IJNMR_311_14

Schlak, A., Aiken, L., Chittams, J., Poghosyan, L., McHugh, M. (2021). Leveraging the Work Environment to Minimize the Negative Impact of Nurse Burnout on Patient Outcomes. *International Journal of Environmental Research and Public Health, 18,* 1-15. https://doi.org/10.3390/ijerph18020610

Seaback, W. (2013) Nursing process: concepts & applications Delmar Cengage Learning Clifton Park, NY

See, M., Chee, S., Rajaram, R., Kowitlawakul, Y., Liaw, S. (2020). Missed nursing care in patient education: A qualitative different levels of nurses' perspectives. *Journal of Nursing Management, 28,* 1960-1967. https://doi.org/10.1111/jonm.12983

Sermeus, W., Aiken, L., Heede, K., Rafferty, A., Griffiths, P., Moreno-Casbas, M., Busse, R., Lindqvist, R., Scott, A., Bruyneel, L., Brzostek, T., Kinnunen, J., Schubert, M., Schoonhoven, L., Zikos, D., RN4CAST consortium. (2011). Nurse forecasting in Europe (RN4CAST) design and methodology. *BioMed Central, 10,* 1-9. http://www.biomedcentral.com/1472-695/10/6

Sharif, S., Ahadzadeh, A., Nia, H. (2018). Mediating role of psychological well-being in the relationship between organizational support and nurses' outcomes: A cross-sectional study. *Journal of Advanced Nursing, 74,* 887-899. https://doi.org/10.1111/jan.13501

Sherwood, G., Nickel, B. (2016). Integrating Quality and Safety Competencies to Improve Outcomes. *Journal of Infusion Nursing, 40,* 117-122. https://doi.org/10.1097/NAN0000000000000210

Smith, J., Morin, K., Wallace, L., Lake, E. (2017). Association of the Nurse Work Environment, Collective Efficacy, and Missed Care. *Western Journal of Nursing Research, 40,* 779-798. https://doi.org/10.1177/0193945917734159

Stalpers, D., Brouwer, B., Kaljouw, M., Schuurmans, M. (2015). Associations between characteristics of the nurse work environment and five nurse-sensitive patient outcomes in hospitals: A systematic review of the literature. *International Journal of Nursing Studies, 52,* 817-835. https://dx.doi.org/10.1016/j.ijnurstu.2015.01.005

Stalter, A., Mota, A. (2018). Using systems thinking to envision quality and safety in healthcare. *Nursing Management,* 32-39. https://doi.org/10.1097/01.NUMA.0000529925.66375.d0

Stemmer, R., Bassi, E., Ezra, S., Harvey, C., Jojo, N., Meyer, G., Ozsaban, A., Paterson, C., Shifaza, F., Turner, M., Bail, K. (2022). A systematic review: Unfinished nursing care and the impact, on the nurse outcomes of job satisfaction, burnout, intention-to-leave and turnover. *Journal of Advanced Nursing, 00,* 1-14. https://doi.org/10.1111/jan.15286

Stimpfel, A., Sloane, D., McHugh, M., Aiken, L. (2015). Hospitals Known for Nursing Excellence Associated with Better Hospital Experience for Patients. *Journal of Nursing Administration, 49,* 1120-1134. https://doi.org/10.1111/1475-6773.12357

Thomas, D., Newcomb, P., Fusco, P. (2019). Perception of Caring Among Patients and Nurses. *Journal of Patient Experience, 6,* 194-200. https://doi.org/10.1177.2374.373518795713

Tonnessen, S., Scott, A., Nortvedt, P. (2020). Safe and competent nursing care: An argument for a minimum standard. *Nursing Ethics, 27,* 1396-1407. https://doi.org/10.1177/09697330209137

Turkel, M., Watson, J., Giovannoni, J. (2018). Caring Science or Science of Caring. *Nursing Science Quarterly, 31,* 66-71. https://doi.org/10.1177/0894318417741116

Ulrich, C., Rushton, C., Grady, C. (2020). Nurses confronting the coronavirus: Challenges met and lessons learned to date. *Nursing Outlook, 68,* 838-844. https://doi.org/j.outlook.2020.08.018

Waldman, J, Kelly, F., Arora, S., Smith, H. (2004). The shocking cost of turnover in health care. *Health Care Manage Review, 29,* 2-7. https://doi.org/10.1097/0000410-2004010000-00002

Wandelt, M., Stewart, D. (1975). *Slater Nursing Competency Rating Scale.* Appleton-Century Crofts, New York.

Watson, J. (1979, 2002) Nursing: The Philosophy and Science of Caring, Boston: Little, Brown

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

Weldetsadik, A., Gishu, T., Tekleab, A., Asfaw, Y., Legesse, T., Demas, T. (2019). Quality of nursing and Nursesa working environment in Ethiopia: Nursesa and physiciansa perception. *International Journal of Africa Nursing Sciences, 10,* 131-135. https://doi.org/10.1016/j.ijans.2019.03.002

White, E., Aiken, L., McHugh, M. (2019). Registered Nurse Burnout, Job Dissatisfaction, and Missed Care in Nursing Homes. *Journal of American Gerontology Society, 67,* 2065-2071. https://doi.org/10.1111/jgs.16051

Whittemore, R., Knafl, K. (2005). The integrative review: updated methodology. *Journal of Advanced Nursing, 52,* 546-553. https://doi.org/10.1111/j.1365-2648.2005.03621.x

Woo, B., Lee, J., Tam, W. (2017). The impact of the advanced practice nursing role on quality of care, clinical outcomes, patient satisfaction, and cost in the emergency and critical care settings: a systematic review. *Human Resources for Health, 15,* 1-22. https://doi.org/10.1186/s12960-017-0237-9

Wu, Y., Wang, J., Liu, J., Zheng, J., Liu, K., Braggs, J., Liu, X., You, L. (2020). The impact of work environment on workplace violence, burnout, and work attitudes for hospital nurses: A structural equation modeling analysis. *Journal of Nursing Management, 28,* 495-503. https://doi.org/10.1111/jonm.12497

Yan, X., Su, J., Luo, Z. (2019). The Role of Work Engagement on the Relationship Between Personality and Job Satisfaction in Chinese Nurses.

Yoo, S., Cho, H. (2020). Exploring the Influences of Nurses' Partnership with Parents, Attitudes to Families' Importance in Nursing Care and Professional Self-Efficacy on Quality of Pediatric Nursing Care: A Path Model. *International Journal of Environmental Research and Public Health, 17,* 1-13. https://doi.org/10.3390/ijerph17155452

You, L., Aiken, L., Sloane, D., Liu, K., He, G., Hu, G., Jiang, X., Li, X., Li, X., Liu, H., Shang, S., Lee, A., Sermeus, W. (2013). Hospital nursing, care quality, and patient satisfaction: Cross-sectional surveys of nurses and patients in hospitals in China and Europe. *International Journal of Nursing Studies, 50,* 154-161. https://dx.doi.org/10.1016/j.ijnurstu.2012.05.003

Younas, A., Rasheed, S., Sundus, A., Inayat, S. (2019). Nurses' Perspectives of self-awareness in nursing practice: A descriptive qualitative study. *Nursing and Health Sciences, 22,* 398-405. https://doi.org/10.1111/nhs,12671

Ywanich, N., Sandmark, H., Akhavan, S. (2016). Emergency department nurses' experiences of occupational stress: A qualitative study from a public hospital in Bangkok, Thailand. *Work, 53,* 885-907. https://doi.org/10.3233/WOR-152181

APPENDICES

APPENDIX A: SURVEY ITEMS

Demographics

1. What is your age?
2. Please indicate your gender.
3. What is your highest level of education?
4. What is your current work status?
5. What is your ethnicity?
6. How many years of your worked in your current profession?

APPENDIX B: SURVEY ITEMS

Environment Items

Agree or Disagree

1. Leadership is supportive of nursing.
2. Nursing controls its own practice on my unit
3. I have freedom to make important patient care and work decisions.
4. There is a lot of teamwork between nurses and doctors.
5. On my unit, patient care assignments foster continuity of care.
6. I have adequate support services to allow me to spend time with my patients.
7. I have enough time and opportunity to discuss patient care problems with other nurses.
8. On my unit, there are enough nurses on staff to provide quality patient care.
9. The nurse manager on my unit is a good manager and leader.
10. We have enough staff to get the work done.
11. My nurse manager supports the nursing staff in decision-making, even if the conflict is with a doctor.
12. Physicians and nurses have good working relationships.
13. On my unit, I am asked to do things against my professional judgement.
14. Information on the status of patients is available when I need it.
15. I receive information quickly when a patient's status changes.
16. Information regarding patient care is relayed without major delays.

APPENDIX C: SURVEY ITEMS

Environment Items Unit

1. My unit has constructive work relationships with other hospital units.
2. My unit does not receive the cooperation it needs from other hospital units.
3. Other hospital units seem to have a low opinion of my primary unit.
4. Inadequate working relationships with other hospital units limit the effectiveness of work within my primary unit.
5. When staff on my unit disagree, they ignore the issue, pretending it will go away.
6. Most conflicts occur with members from my own discipline.
7. Staff on my unit withdraw from conflict.
8. On my unit, all points of view are carefully considered in arriving at the best solution for the problem.
9. All staff on my work unit work hard to arrive at the best possible solution.
10. On my unit, staff involved in a disagreement or conflict do not settle the dispute until all are satisfied with the decision.
11. Most conflicts occur with members from other disciplines.
12. Everyone on my unit contributes from their experience and expertise to produce a high-quality solution for a conflict.
13. On my unit, disagreements between staff are ignored or avoided.

14. Staff involved in a disagreement or conflict settle the dispute by consensus.

APPENDIX D: SURVEY ITEMS

Quality

1. The shortage is worse than five years ago.
2. The shortage is not as bad as five years ago.
3. There has been no change.

Positive influence

1. Safety practices
2. Engagement of the team members
3. The used of an electronic health record
4. Effective leadership
5. Staffing levels

APPENDIX E: SURVEY ITEMS

COVID-19

1. How would you describe the impact of COVID-19 on your organization?
2. How would you describe the impact of COVID-19 on your individual job as a nurse?
3. What are the greatest challenges related to protocol, resources, or operations that your organization has faced as a result of the COVID-19 Pandemic? Please check all that apply.
4. Which of the following staffing changes has your organization experienced as a result of COVID-19 pandemic? Please check all that apply.

APPENDIX F: IRB APPROVAL

INSTITUTIONAL REVIEW BOARD
Office of Research Compliance,
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IRBN007 – EXEMPTION DETERMINATION NOTICE

Monday, June 13, 2022

Protocol Title	***Quality Nursing Care and the Work Environment Pre-COVID and Post- COVID Survey from the Nurses' Perspective***
Protocol ID	**22-1151 2q**
Principal Investigator	**Joyce A. Finch** (Student) *Faculty Advisor:* Angie S. Bowman
Co-Investigators	NONE
Investigator Email(s)	*joyce.finch@mtsu.edu; angie.bowman@mtsu.edu*
Department/Affiliation	Health and Human Performance

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXEMPT** review mechanism under 45 CFR 46.101(b)(2) within the research category

(2) Educational Tests, surveys, interviews or observations of public behavior

(Qualtrics Survey). A summary of the IRB action and other particulars of this protocol are shown below:

IRB Action	**EXEMPT from further IRB Review** Exempt from further continuing review but other oversight requirements apply		
Date of Expiration ☒ ☐	**5/31/2023**	*Date of Approval:* **5/27/22**	*Recent Amendment:* **6/13/22**
Sample Size	FIVE HUNDRED (500)		
Participant Pool	**Healthy adults (18 or older) – Practicing Beadside Nurses**		
Exceptions	Online consent followed by internet-based survey using Qualtrics is permitted (Qualtrics links on file).		
Type of Interaction	Non-interventional or Data Analysis Virtual/Remote/Online Interview/survey In person or physical– Mandatory COVID-19 Management (refer next page)		
Mandatory Restrictions	**1. All restrictions for exemption apply.** **2. The participants must be 18 years or older.** **3. Mandatory ACTIVE informed consent.** **4. Identifiable information, such as, names, addresses, and voice/video data, must not be obtained.** **5. NOT approved for in-person data collection.**		
Approved IRB Templates	*IRB Templates:* Online Informed Consent *Non-MTSU Templates:* Recruitment Email and Social Media Recruitment Script		
Research Inducement	NONE		
Comments	Approved informed consent not issued		

Summary of the Post-approval Requirements: The PI and FA must read and abide by the post-approval conditions (Refer "*Quick Links*" in the bottom):

- ***Final Report:*** The Faculty Advisor (FA) is responsible for submitting a final report to close-out this protocol before **5/31/2023**; if more time is needed to complete the data collection, the FA must request an extension by email. REMINDERS WILL NOT BE SENT. **Failure to close-out (or request extension) may result in penalties** including cancellation of the data collected using this protocol or withholding student diploma.
- ***Protocol Amendments***: IRB approval must be obtained for all types of amendments, such as:
  - Addition/removal of subject population and sample size.
  - Change in investigators.
  - Changes to the research sites – appropriate permission letter(s) from may be needed.
  - Alternation to funding.
  - Amendments must be clearly described in an addendum request form submitted by the FA.
  - The proposed change must be consistent with the approved protocol and they

must comply with exemption requirements.

- ***Reporting Adverse Events:*** Research-related injuries to the participants and other events , such as, deviations & misconduct, must be reported within 48 hours of such events to
- ***Research Participant Compensation:*** Compensation for research participation must be awarded as proposed in Chapter 6 of the Exempt protocol. The documentation of the monetary compensation must Appendix J and MUST NOT include protocol details when reporting to the MTSU Business Office.
- ***COVID-19:*** Regardless whether this study poses a threat to the participants or not, refer to the COVID-19 Management section for important information for the FA.

COVID-19 Management:

The FA must enforce social distancing guidelines and other practices to avoid viral exposure to the participants and other workers when physical contact with the subjects is made during the study.

- The study must be stopped if a participant or an investigator should test positive for COVID-19 within 14 days of the research interaction. This must be reported to the IRB as an "adverse event."
- The FA must enforce the MTSU's "Return-to-work" questionnaire found in Pipeline must be filled and signed by the investigators on the day of the research interaction prior to physical contact.
- PPE must be worn if the participant would be within 6 feet from the each other or with an investigator.
- Physical surfaces that will come in contact with the participants must be sanitized between use
- **FA's Responsibility:** The FA is given the administrative authority to make emergency changes to protect the wellbeing of the participants and student researchers during the COVID-19 pandemic. However, the FA must notify the IRB after such changes have been made. The IRB will audit the changes at a later date and the PI will be instructed to carryout remedial measures if needed.

Post-approval Protocol Amendments:

The current MTSU IRB policies allow the investigators to implement minor and significant amendments that would not result in the cancellation of the protocol's eligibility for exemption. ***Only THREE procedural amendments will be entertained per year*** *(changes like addition/removal of research personnel are not restricted by this rule).*

Date	Amendment(s)	IRB Comments
06/13/2022	A social media recruitment script has been added.	IRBA2022-372

Post-approval IRB Actions:

The following actions are done subsequent to the approval of this protocol on request by the PI or on recommendation by the IRB or by both.

Date	IRB Action(s)	IRB Comments
NONE	NONE.	NONE

Mandatory Data Storage Requirement:

All research-related records (signed consent forms, investigator training and etc.) must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data must be stored for at least three (3) years after the study is closed. Additionally,

the Tennessee State data retention requirement may apply (*refer "Quick Links" below for policy 129*). Subsequently, the data may be destroyed in a manner that maintains confidentiality and anonymity of the research subjects. **The IRB reserves the right to modify/update the approval criteria or change/cancel the terms listed in this notice**. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

- Post-approval Responsibilities: http://www.mtsu.edu/irb/FAQ/PostApprovalResponsibilities.php
- Exemption Procedures: https://mtsu.edu/irb/ExemptPaperWork.php
- MTSU Policy 129: Records retention & Disposal: https://www.mtsu.edu/policies/general/129.php