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Chaos is Not Rational: Nursing Leadership and Intuition in Disaster Preparedness and Response

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CHAOS IS NOT RATIONAL: NURSING LEADERSHIP AND INTUITION IN DISASTER PREPAREDNESS AND RESPONSE

by

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ABSTRACT

Nurses are looked upon as leaders in disaster preparedness and response. Charged with making life-altering decisions, experienced nurse leaders utilize analytical and intuitive strategies to manage crisis situations. Rarely recognized by upper-level management and educational institutions, intuition is our natural ability to know something without any evidence or validation. Intuition allows us to make decisions in ever-changing circumstances when solutions are not obvious. Though difficult to explain, intuition is a powerful skill that gives nurse leaders the confidence needed to make decisions based on their previous experience. Experienced nurse leaders utilize intuition to arrive at a solution without conscious awareness and are capable of quickly processing the situation and producing accurate responses with little information. Intuitive decision-making is incorporated into nursing practice on a daily basis; however, we do not know the depth in which intuition exists within the nursing profession and among nursing leadership.

Therefore, the purpose of this study was to examine the lived experiences of nursing leaders using intuition as part of the leadership approach in crisis situations. The qualitative study utilized an interpretative phenomenological approach to illustrate and understand the personal experiences of nurse leaders as they faced uncertain circumstances. The study population included nurses in public health or in the private sector who served in leadership roles in crisis situations. Nurses were recruited via telephone, email, and social media based on their current professional relationship with the researcher. Demographic data was collected through online surveys and one-on-one, semi-structured interviews were conducted via Zoom® with each participant. These

interactions between the interviewer and the interviewee revealed the meaning of their lived experiences and understanding of the world from the participant's point of view (Creswell & Poth, 2018). The findings of this study provide insight and understanding of the functional, real-life application of intuition by nursing leaders when dealing with complex and rapidly fluctuating situations.

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DEDICATION

This work is dedicated to the most important people in my life. Without you, I would be nothing.

To my daddy, the one for whom I started this journey, thank you for pushing me to be the best version of myself and for always reminding me that I can, unapologetically, be exactly who I am and not who people want me to be. My dream of being a doctor started with you and I hate that you aren't here to see that dream become a reality. Know that your legacy of hard work and determination lives on in your daughter and I hope I make you proud. This is in loving memory of you. I love you like nobody's business.

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ADN	Associate Degree in Nursing
AIDS	Acquired Immunodeficiency Virus
BSN	Bachelor of Science in Nursing
DNP	Doctor of Nursing Practice
EdD	Doctor of Education
CCT	Cognitive Continuum Theory
HIV	Human Immunodeficiency Virus
ICU	Intensive Care Unit
IPA	Interpretative Phenomenological Analysis
IRB	Institutional Review Board
MSN	Master of Science in Nursing
Ph.D.	Doctor of Philosophy
USM	The University of Southern Mississippi
VA	Veterans Health Administration

CHAPTER I – INTRODUCTION

Nurses are an integral part of the healthcare system. As key members and leaders, they can influence the beliefs, behaviors, and attitudes of their peers and subordinates. Nursing leaders serve as role models to motivate and inspire others to work together to meet the needs of their organizations and the communities in which they live. Effective leadership is an essential part of the nursing profession and is essential in managing change within an organization. Effective nursing leaders are those who exhibit honesty and integrity and value the strengths of those around them. Leaders take charge of the operation of the organization, set realistic goals, and steer the operation toward those goals through effective strategies (Hao & Yazdanifard, 2015). Effective leadership brings positive change to any situation. When leaders have a clear vision and set optimistic goals, they can change the trajectory of the organization. A leader's effectiveness is based on their natural leadership style and their ability to be flexible as the situation evolves. In times of crisis, with rapidly changing environments, nursing leaders are often charged with making critical decisions with little insight or information. By identifying risks, developing plans, and responding promptly, nurses can decrease the negative impacts that disasters have on individuals and communities.

For comprehensive disaster response, nursing leaders must be involved in every aspect from plan development to implementation (Al Harthi et al., 2020). Holistic disaster preparedness includes proper planning before the event, efficient response during the event, and participation in the recovery process. The World Health Organization (WHO) defines a disaster as an event or occurrence that could cause health-related harm or loss of life and requires a prompt response with significant resources, preparedness,

response, and recovery (Al Harthi et al., 2020). Disaster nursing dates as far back as the Crimean War. At the request of the British government, Florence Nightingale, the founder of modern nursing and nursing science, took a group of women with her to Turkey and assumed the responsibilities of the barracks hospital (Knebel et al., 2012). Disaster nursing gained significance during the 19th century with the American Red Cross's response to the yellow fever epidemic of 1888, the Johnstown flood of 1889, and the hurricane in Galveston in 1900 (Wall & Keeling, 2016). More recently, we recognize events such as September 11, 2001, Hurricane Katrina, and the COVID-19 pandemic in which nurses took on a pivotal role not only in the care of patients but in the management of the disaster. Every day nurses work across the span of healthcare in intensive care units, long-term care, public health, schools, and home health. The roles and functions of the nurse during a healthcare crisis encompass far more than patient care. Disasters, whether hydrological, climatological, biological, or meteorological, often result in displaced families, injuries, economic issues, and deaths. By adapting to the ever-changing conditions of the disaster, nurses aid victims and reduce life-threatening health risks (Emaliyawti et al., 2021).

For holistic response, nursing leaders must be involved in the planning and implementation of disaster management policies as well as the intensive training before, during, and after a crisis occurs. When disaster strikes, nurse leaders are responsible for both crisis management and crisis leadership and understand that the two roles are distinct from one another (Firestone, 2020). Crisis management is the proactive preparation prior to the disaster. Crisis management is a process of prevention, preparedness, response, and recovery. In order to lessen the damage inflicted by the

situation, crisis management requires systematic decision-making and the ability to predict potential threats (Fener & Cevik, 2015). During a crisis, it is easy for nurse leaders to be consumed by the complexity of the situation. Training and education prior to the event are crucial to the success of the team. It is the leaders' responsibility to quickly become familiar with the situation, understand the details, focus on the big picture, and communicate the plan effectively with their team. Proper planning will allow the nurse leader to convey their vision clearly without succumbing to the physical and mental demands of the situation.

Crisis leadership includes crisis management but extends beyond the planning process to fostering relationships and achieving the mission. Leaders provide a clear vision and influence others in a noncoercive manner while providing guidance and direction throughout the phases of the event (Knebel et al., 2012). Crisis leadership requires nurse leaders to model the behavior they expect from others, communicate clearly, and remain calm and confident in uncertain circumstances. The behavior and demeanor of the nurse leader influences others. Leaders should strive to meet others *where they are* emotionally and connect with their team on a very human level. Effective crisis leaders are empathetic and respond to the human needs and emotions of those experiencing the crisis (Knebel et al., 2012). Individuals are more likely to follow nurse leaders who are reassuring and remind them of their strengths. Nurse leaders must celebrate the successes of the team and create opportunities for others to express their fears and concerns.

Crisis management and disaster response reveal true leadership potential. Comprehensive disaster management requires nurse leaders to consider not only the

immediate crisis but also disaster preparedness and recovery (Knebel et al., 2012). It is imperative that nurse leaders adapt their leadership style to meet the needs of the situation and remain flexible during the response. Facing challenges outside of their control, strong leaders communicate openly, ask questions when appropriate, and hold themselves personally responsible for the success of the team. In high-stress, unpredictable situations, intuition is widely used by nursing leaders but is often underestimated when compared to analytical decision-making. The unconscious process of intuition is not validated by reliable measures but rather a process that draws on experiences. Intuition is obscure in nature and illogical. A well-known term though difficult to define, intuition is the ability to quickly recognize what is not clearly visible to others at that moment in time (Slater, 2009). Intuitive leaders have the innate ability to make critical decisions and act decisively in the most extreme circumstances. When faced with uncertainty, they act through instinct rather than rationalization and remain flexible in the changing environment.

Statement of the Problem

Nurses are looked upon as leaders in disaster preparedness and response. Charged with making life-altering decisions, experienced nurse leaders utilize analytical and intuitive strategies to manage crisis situations. Analytical thinkers are logical and method driven. An analytical approach to problem-solving involves a quantitative approach emphasizing facts and data and comparing pros and cons. This approach is logical and structured and, while largely beneficial, is also very impractical in crisis situations when time is of the essence. Analytical decisions are better suited for long-term strategic planning. Contrastingly, intuitive thinkers are driven by emotion and experience making

confident decisions by observing trends and patterns. Intuition generates controversy in scientific literature as it operates in the subconscious and is difficult to articulate (Okoli & Watt, 2018). With no distinct way of knowing where a person's intuition comes from, intuitive decision-making is often seen as unintentional and effortless.

There is a long-standing debate about the role of intuition in the decision-making process. Albert Einstein said, "the intuitive mind is a sacred gift, and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift," implying that our rational mind is only present to serve our intuition, (Van Der Vilet, 2015, n.p.). Einstein understood the value of intuition and the ability to quickly discard unimportant information in order to make the *best* decision. While intuition is often thought to be an uninformed *gut feeling* or a *sixth sense*, it does not occur independently of analysis. Intuition does not negate logical thinking but rather synthesizes years of experiences and transforms them into quick, habitual responses (Malewska, 2018).

Nurses are part of a complex discipline that requires various forms of knowledge to guide their day-to-day practice (Valenzuela, 2019). As senior leaders, they are exposed to complex, turbulent situations and move from one situation to the next based on the decisions that they make with the information that was presented at the time. Successful nursing leaders are intuitive decision-makers. They translate their past experiences and previous successes into action and integrate intuition into their daily work when making decisions in response to crises. This research explored the decision-making process of nursing leaders and how they integrate intuition into their daily work in response to crises and disaster management.

Significance

Leadership styles vary based on the current situation. A leader's ability to respond to change, be flexible and think quickly, and adapt to complex emotional and interpersonal demands determines their success in each situation. In unpredictable situations, including dynamic changes in the environment and excess or lack of information, the intuitive decision-maker will analyze and process current data while constantly seeking new information (Malewska, 2018). The ability to make decisions quickly and confidently in response to time constraints and pressure is the result of many years of training and experience.

This research was exploratory, seeking an understanding of how the utilization of intuition in the experience of nurse leaders reflects theoretical concepts of intuition as determined by literature. The practical implications of the research include conceptualizing how intuition influences the decision-making process of nursing leaders, based on their reported perceptions of their experiences using it. Nurses are deeply grounded in their knowledge developed in practice and their previous experiences. Exploring the experiences of nursing leaders with the use of intuition may lead to further research on how to better develop intuition and its usefulness.

Purpose of the Study

The purpose of this qualitative interpretive phenomenological study was to examine the lived experience of nursing leaders using intuition as part of the leadership approach in crisis situations. Specifically, the purpose was to discover how nursing leaders' preparedness for their roles in disaster preparedness, effective leadership characteristics, and outcomes of decisions made by these nurses in leadership roles occur

while managing stressful, unpredictable situations. This study contributes to the understanding of the functional, real-life application of intuition by nursing leaders when dealing with complex and rapidly fluctuating situations and public health emergency response.

Conceptual Framework

Intuition is defined as the ability to gain knowledge that cannot be obtained by inference or observation (Encyclopedia Britannica, 2012). It is a form of knowing based on experience and feelings and is seen largely as an unconscious form of knowledge. Complicated by limited information and the uncertainty of the circumstances, nurse leaders often rely on their intuition to make real-world decisions in response to crises. For the purpose of this study, the researcher explored both theoretical and philosophical influences that inspired this research. These influences provided insight into real-life intuitive decisions made by nurse leaders.

Phenomenology

To capture the subjective, first-person point of view of nurse leaders in crisis situations, the researcher explored a qualitative phenomenological approach. Phenomenology focuses on understanding lived experiences with the detailed recall of cognitive, emotional, and sensory components (Anderson et al., 2019). Initially articulated in the 20th century by German philosopher Edmund Husserl, the development of phenomenology was based on the concept of *intentionality* and our consciousness or awareness of the things in our environment. Husserl presented a transcendental or descriptive approach to phenomenology which assumed that reality was internal and appeared in the knowers' consciousness. According to Husserl, our consciousness is

composed of intentional acts, and they cannot be isolated because they are directly related to our experiences. The structures of consciousness include experiences such as thought, memory, perception, protention, emotion, and desire. Conscious experiences are unique in that we do not observe them but rather we live through them. They are experiences that we see, think, and do.

Early phenomenology did not come without controversy. In the late 20th century, Martin Heidegger, a former student of Husserl, introduced the idea of hermeneutic or interpretative phenomenology (Neubauer et al., 2019). Heidegger, unlike Husserl, was interested in the relationship between the individual and the world in which they live. This meant that the individual's conscious experience was not separate from their personal history but instead is the culmination of lived experiences and the culture in which they were raised (Neubauer et al., 2019). An interpretative phenomenological (hermeneutics) approach was chosen for this study because it explores the perspectives of those who have experienced the phenomenon both in terms of *what* they experienced and *how* they experienced it. To truly understand the phenomenon, we must *see* it through the eyes of those who have lived it.

From Novice to Expert Theory

The second theoretical framework used to guide this study was Patricia Benner's Novice to Expert model (Butts & Rich, 2018). Introduced in 1982, Dr. Patricia Benner's Novice to Expert model discussed how nurses gain knowledge and proficiency with experience. Derived from the Dreyfus Model of Skill Acquisition (Butts & Rich, 2018), it was adapted to provide a more objective way of evaluating nursing competency. She recognized that over time, a nurse's practice progressively improved with experience.

Benner acknowledged five levels of nursing practice including: (a) novice, (b) advanced beginner, (c) competent, (d) proficient, and (e) expert (Butts & Rich, 2018). Arguably, the novice nurse is a beginner and lacks situational experience while the expert nurse has extensive knowledge of situations which allows for intuitive decision-making. Through years of experience, there is a progression from novice to expert, as reflected in Figure 1. As a rule, individuals progress through each stage of proficiency rather than moving directly from novice to expert (Persky & Robinson, 2017).

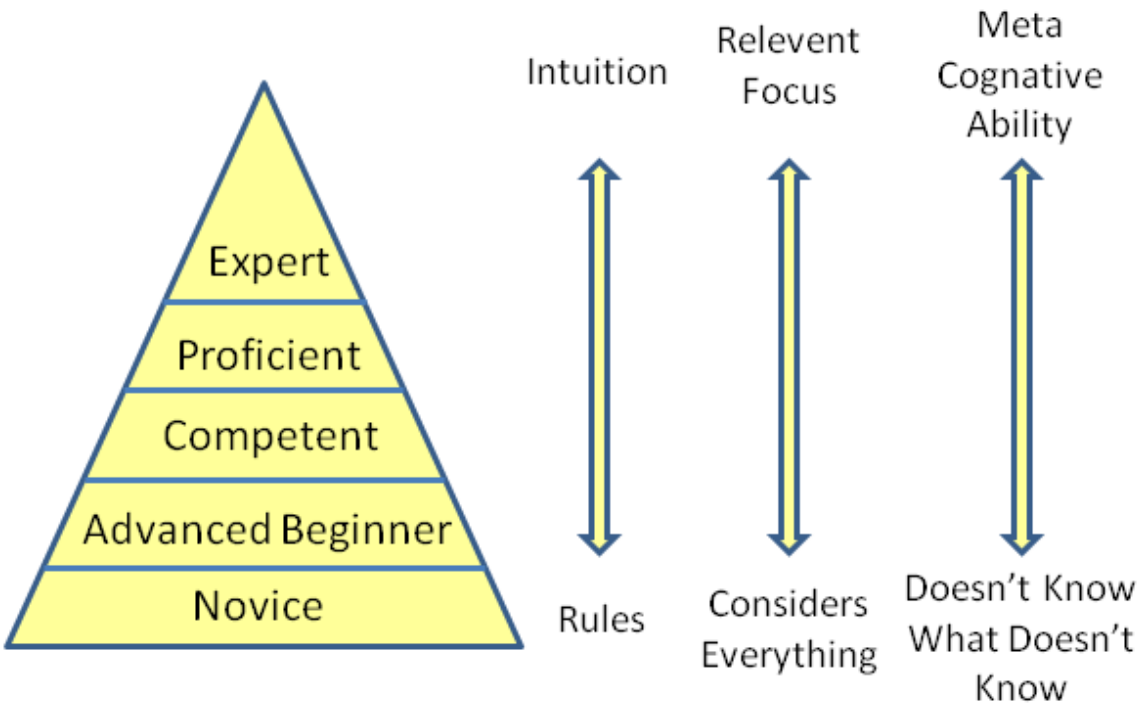

Figure 1. Five Levels of Proficiency.

The image above shows the capabilities of individuals at each level of proficiency and how they progress to the next level (Five Levels of Proficiency. (n.d.).

There are specific characteristics prevalent in each phase. In the novice phase, nurse leaders are learning the basics and follow rules and plans with little discretionary judgment. In the advanced beginner phase, nurse leaders recall basic information and

provide partial solutions or input into unfamiliar situations. The competent nurse leader begins to look at long-term goals. They have a consistent routine and emotional reactions to decision outcomes. As nurse leaders become proficient, decisions become more automatic, and they begin to develop intuition. They become increasingly more confident, and they have a greater understanding of the rules and alternative options in complex situations. As experts, nurse leaders will make intuitive decisions and accept responsibility for themselves, others, and the situation at hand.

As nurse leaders progress from novices to experts, they are more organized and have strong foundational knowledge. Because of their experience and recurrent retrieval of information, experts require less cognitive effort to make decisions. Experts are capable of solving problems by identifying patterns and forming mental representations which allow them to see the situation clearly and identify the best solution (Persky & Robinson, 2017). Decision-making capability improves with experience and expertise. Over time, pattern recognition becomes more refined and allows experts to make more intuitive decisions.

Transformational Leadership Theory

The term *transformational leadership* was first introduced by sociologist James V. Downton in 1973, however, it was leadership expert and political sociologist James MacGregor Burns who defined transformational leaders in his work titled *Leadership* in 1978 (Northouse, 2016). Transformational leadership emphasizes the relationship between the leader and their followers. Burns focused on the separation of leadership and power and argued that leadership is inseparable from the needs of the followers (Northouse, 2016). Effective transformational leaders practice self-awareness and remain

open-minded to new perspectives. They are adaptive, proactive decision-makers and are confident in their abilities while capable of admitting that they do not have all the answers. Strong communication and empathetic support from the leader will result in inspired employees who strive to exceed required expectations.

In the mid-1980s, researcher Bernard M. Bass expanded transformational leadership and developed what would later be referred to as Bass's Transformational Leadership Theory (Northouse, 2016). By extending the work of those before him, Bass suggested that transformational leadership could apply to all situations regardless of the outcome. His model included the following four components of transformational leadership.

Idealized Influence. Transformational leaders have high moral and ethical standards, are trustworthy, and serve as role models for those around them. Because of these traits, followers will emulate their behavior and accept their ideals.

Inspirational Motivation. Transformational leaders articulate their mission and vision clearly to the follower(s). Understanding that followers need the same passion for a shared vision, transformational leaders inspire and motivate their teams to fulfill their goals.

Intellectual Stimulation. Transformational leaders encourage followers to be creative and seek out learning opportunities. They support the innovative ideas of their followers and encourage critical thinking and problem-solving.

Idealized Consideration. Transformational leaders foster a supportive environment where clear communication is reciprocated. Followers are supported and encouraged to share ideas and are recognized for their unique contributions.

As open-minded, proactive problem-solvers, transformational leaders produce loyal, successful teams who are committed to the greater good of the organization. They inspire others by being responsive and are willing to take personal responsibility for themselves, the team, and the decisions made in any given situation.

Research Questions

Over the last decade, research on nursing leadership has increased substantially, but few researchers have studied the decision-making process. The vast majority of research surrounding nursing leadership pertains to clinical nursing in a controlled environment. There is a paucity of research on how nursing leaders navigate crises such as natural disasters and public health emergencies. The research question evolved from how effective intuition is for nursing leaders in decision-making and problem-solving. The research inquires: *What is the experience of nursing leaders using intuition in command leadership in crisis situations, such as public health emergencies?*

To focus on the perspectives of nurse leaders an interpretative phenomenological approach was chosen. The following open-ended questions were used to guide the conversation and explore the lived experiences of nurse leaders in crisis situations.

1. What is the lived experience and meaning of being a nurse leader in a crisis situation?
2. What effect has intuition had on nurse leaders' decision-making process and the outcome of the situation?

Operational Definitions

For the purpose of this study, the following variables were defined:

- Nurse: a licensed healthcare professional who cares for the sick and promotes health and well-being (Merriam-Webster, n.d.).
- Leader: a person who has authority or influence over a unit, group, or organization (Merriam-Webster, n.d.).
- Leadership: the ability of an individual to influence or inspire a group of individuals to achieve a common goal (Northouse, 2016).
- Intuition: a thought process; acquiring knowledge or cognition without rational reasoning (Merriam-Webster, n.d.).
- Supervisor: an individual in charge of a unit or operation (Merriam-Webster, n.d.).
- Crisis: an unstable situation or state of affairs with the distinct possibility of an undesirable outcome (Merriam-Webster, n.d.).
- Preparedness: measures to ensure organized mobilization of personnel, supplies, and funding to a safe environment for effective (disaster) relief (WHO, n.d.).
- Disaster: an occurrence that disrupts normal conditions often causing suffering to the affected community; an incident that could cause health-related harm or result in loss of life (WHO, n.d.).
- Response: activities implemented after the impact to reduce suffering and limit the consequences of the disaster (WHO, n.d.).

- Public Health Emergency: a natural or man-made event that poses a health risk to the public. These events include but are not limited to severe weather, disease outbreaks, contaminated drinking water, chemical threats, and radiological threats.

Assumptions

Assumptions in this study include:

1. Participants responded to interview and demographic questions truthfully and appropriately. While there is no way of knowing whether the participant's answers are completely factual, the researcher made every effort to establish a respectful, professional rapport encouraging honest responses.
2. Nurses participating in the study held a position of leadership during a crisis situation and they had executive decision-making capacity.
3. The researcher respected the confidentiality of the participant's information and the knowledge discovered.
4. The qualitative approach contributed to the understanding of the real-life application of decision-making by nurse leaders.
5. Nurse leaders made intuitive decisions when faced with crisis situations and public health emergencies.

Limitations

The research consisted of nurses who have at least a bachelor's degree and were/are in a supervisory position as indicated by the organizational hierarchy of the institution. This researcher analyzed the data solo which may have presented limitations

in the analysis of the data. Results were also limited if participant responses were dishonest or if they did not use an intuitive approach to decision-making.

Delimitations

Nurses who had not obtained at least a bachelor's degree (in nursing) were not included in the study. Questionnaires were not used in this study. Responses were limited to online demographic surveys and interviews conducted via Zoom®. Nurses who did not currently have a professional relationship with the researcher or are not referred to the researcher by another participant were not included.

Summary

The purpose of this study was to examine the lived experience of nursing leaders using intuition as part of the leadership approach in crisis situations and public health emergencies. There is an opportunity to expand knowledge related to the real-life application of intuition by nursing leaders when dealing with complex and rapidly fluctuating situations and public health emergency response. The conceptual framework, objectives, assumptions, limitations, and delimitations were addressed. Chapter II will provide an in-depth review of the current literature supporting intuition as a credible decision-making process.

CHAPTER II – REVIEW OF THE LITERATURE

Introduction

This qualitative research investigates the experiences of nursing leaders in command leadership in crisis situations, such as disasters and public health emergencies. Of particular interest is the use of intuitive decision-making in uncertain circumstances with limited information available. This literature review discusses the concept of intuition and how it compares to analysis in leadership decision-making. It also provides a detailed history of nursing leadership in disaster response dating back to Florence Nightingale in the mid-1800s.

An electronic search was conducted through The University of Southern Mississippi (USM) library system and Google Scholar to find scholarly manuscripts and nursing research applicable to the study. Keywords such as *intuition, nursing leadership, crisis, public health emergency, disaster, Novice to Expert theory, transformational leadership,* and *decision-making* were used to search for relevant articles and discover gaps in the research. To date, there is limited research into the functional, real-life application of intuition by nursing leaders when dealing with complex and rapidly fluctuating situations and public health emergency response.

History of Nursing Leadership in Disasters

Nurses in leadership roles date back to the mid-1800s. Florence Nightingale had notable accomplishments in statistics, sanitary reform, theology, and literature, it was her role in the foundation of modern nursing that served as her legacy. Nightingale, who is often remembered for her clinical work in nursing, served as an advocate, leader, and educator by leading a corps of nurses in caring for sick, injured, and fallen soldiers

(Knebel et al., 2012). Though Nightingale is known for her gallant clinical contributions, she also had a gift for mathematics and contributed greatly to the graphical depiction of statistics. During her time in the Barrack Hospital, Nightingale discovered that hospital conditions were less than sanitary, and soldiers were more likely to die of diseases such as typhus or cholera than they were to die from battlefield wounds. She collected and organized data and brought her statistics to life with the creation of her Polar Area Diagram (Knebel et al., 2012). This graphical representation would later be used to present her findings and, ultimately, improve the conditions not only in military hospitals but also in civilian hospitals. Her leadership skills and willingness to serve led to a substantial decline in mortality during the Crimean War.

While her contributions are numerous, Nightingale's legacy is her role in the foundation of the nursing profession. Nightingale was a pioneer during a time when nursing wasn't a well-respected career choice. Following the Crimean War, Nightingale wanted to ensure a highly skilled nursing workforce. In 1860 she established The Nightingale Training School at St. Thomas Hospital to provide women with professional nurse training and formal education in ethics, professionalism, anatomy, and sanitation (Encyclopedia Britannica, 2022). Nightingale set the standard for nursing education and quality patient care.

Nightingale's efforts were followed by the likes of nurse and teacher, Clara Barton. Though she never had formalized nursing education, Barton earned the name *Angel of the Battlefield* by providing nursing care to wounded soldiers on both sides of the battlefield during the Civil War. Following the war, Barton's humanitarian work flourished as she volunteered with the International Committee of the Red Cross and ran

the Office of Missing Soldiers. Barton discovered thousands of unanswered letters to the War Department about missing soldiers and requested permission from President Lincoln to formally answer them (Boelhouwer, 2021). With the blessing of the president, Barton and her assistants spent 4 years writing replies and identifying soldiers who were killed or missing in action. Through her efforts, more than 20,000 Union soldiers were laid to rest with marked graves (Boelhouwer, 2021).

Barton returned to the United States in 1873. Worried that the U.S. would again the face tragedy of war and disasters such as hurricanes and earthquakes, she set out on what would be a 17-year project to gain awareness for future relief efforts. In 1881, Barton gained the recognition of the U.S. government and founded the American Red Cross (Knebel et al., 2012) The American Red Cross received its first congressional charter in 1900 and remains committed to providing services to members of the armed forces as well as providing disaster relief in the U.S. and around the world (American Red Cross, 2022). Barton served as president of the American Red Cross for 23 years before retiring in 1904. It was her innovation and leadership that brought nursing to the front lines.

Over the years, the role of nurses has evolved from bedside care to supervision and leadership. Nurse leaders are responsible for identifying problems and formulating solutions while working in collaboration with providers, stakeholders, and upper-level administration. Nurses in positions of clinical leadership during disasters date back as far as the Spanish influenza outbreak in 1918. In a time when one in every four Americans was contracting the disease, the American Red Cross and the U.S. Public Health Service appealed to nurses to care for the sick and dying (Knebel et al., 2012). Nurses, even those

retired or with limited experience, responded to the call of service. In 1989 when Hurricane Hugo devastated St. Croix, nurses demonstrated leadership by treating victims and caring for patients. In 1992 when Hurricane Andrew made landfall as a Category 4 hurricane, disaster management teams, including more than 600 nurses, were deployed to care for those in the areas of devastation (Knebel et al., 2012).

Nurses have also risen to the occasion during times of domestic terrorism. Perhaps some of the most devastating attacks have taken place on U.S. soil where nurses responded to terrorism-related disasters. In 1995, the Murrah Federal Building in Oklahoma City was perpetrated by anti-government militant Timothy McVeigh and his co-conspirator Terry Nichols. The powerful explosion left 168 people dead, including 19 children, and hundreds more injured (Federal Bureau of Investigation [FBI], 2016). The response of the medical community in the wake of the Oklahoma City bombing was unprecedented but it was the act of terrorism at the hands of Al-Qaeda terrorists that forever changed the nation. On September 11, 2001, 19 terrorists hijacked four commercial airliners and flew them into the World Trade Center towers (New York City, New York), the Pentagon (Arlington, Virginia), and an empty field in Shanksville, Pennsylvania, short of its intended target in Washington, D.C. (Knebel et al., 2012). The attacks claimed the lives of 2,977 innocent people and set into motion the largest emergency response ever conducted by Health and Human Services as the U.S. Public Health Service (PHS) Commissioned Corps nurses responded after the attack on September 11 and highlighted the uniformed service and leadership potential of more than 6,000 health care professionals (Knebel et al., 2012).

Nurse leaders are faced with health threats and catastrophic, emotion-laden circumstances. It is their ability to manage these situations that makes them effective leaders. Successful leaders are those who communicate well and strive for excellence. They are role models for their peers and influence their followers to accomplish a common goal. While nursing education and clinical skills have evolved over time, the overarching goal of protecting the health and safety of the community remains the same. Nurses who were once limited to bedside care now serve as leaders in developing policies and preparedness plans while providing core public health services on the frontlines during disaster response (Knebel et al., 2012).

Concept of Intuition

The concept of intuition involves translating an individual's experience into action assuming that, either consciously or unconsciously, individuals are deeply rooted in a continuous flow of first-hand experiences over the course of their lifetime (Okoli & Watt, 2017). Developing intuition is a gradual, experience-based process and the level of confidence in making intuitive decisions and the quality of an individual's intuition comes with experience and expertise. Intuitive decision-making is incorporated into nursing practice on a daily basis but is rarely recognized by upper-level management and educational institutions. Often difficult to articulate, intuition is considered an unreliable, untrustworthy concept, and its' legitimacy is questioned due to its complex, abstract nature (Abdi et al., 2016).

The difficulty with intuition is that there is no clear way to define it as a concept or where it comes from (Okoli & Wyatt, 2018). Intuition is described as a *gut feeling* or a *sixth sense* and is a phenomenon that we rely on frequently in our daily lives. Intuition is

our natural ability to know something without any evidence or validation. Intuitive thoughts come to mind quickly and require little reflection. It is an inexplicable feeling of certainty allowing us to make decisions when solutions are not obvious. Our intuition is what makes us turn around in a crowd when we feel like we are being watched and the *little voice* that tells us when something is right or wrong. Seemingly spontaneous and without rational thought, intuition often carries a negative connotation because it provokes a physical and/or emotional response and is thought to be illogical (Hallo & Nguyen, 2021). Though difficult to explain, intuition is a powerful skill that gives us the confidence needed to make decisions based on our previous experiences.

As the result of years of experience and expertise, intuition is more than an uninformed *gut feeling* and has a proper role in the decision-making process (Miller, 2018). When time is of the essence and information is limited, intuition gives leaders the confidence needed to take immediate action. As an individual moves from novice to expert in their field, they utilize intuition more frequently in their decision-making process. Experienced intuitive decision-makers arrive at a solution without conscious awareness and are capable of quickly processing the situation and producing accurate responses with limited information. By recognizing patterns of behaviors and subconsciously processing past experiences, they expeditiously navigate the course of action.

Intuition vs Analysis

Effective decision-making is a critical skill for nurse leaders to possess. Researchers agree that there are two qualitatively different thinking modes when processing information and making decisions: 1) a deliberate/analytical mode which is

calculated and rule-based, requiring time to process and is much slower in nature, and 2) an intuitive mode which is effortless, automatic, and associative in nature (Rusou et al., 2013). Analytical thinking is measurable and focuses on the details. Processes, workflows, and past performances help analytical thinkers move forward and try to make sense of the situation. Analytical decisions are precise and justifiable and are suited for long-term strategy or research when leaders have time to follow a step-by-step problem-solving process (Ruosou et al., 2013).

Intuitive thinking is a subconscious process. It is the ability to make decisions based on previous experiences and pattern recognition, but it should not be viewed as contradictory of analysis. Intuitive decisions are flexible and suited for situations when leaders are expected to act quickly and decisively in ever-changing circumstances. Leaders are often presented with situations that require them to make decisions with an incomplete set of facts. It is important to acknowledge that some decisions demand more time and attention to detail than others. Leaders must ask themselves; *How much information is necessary to make a sound decision? Does the situation warrant waiting for more information, or should I trust my intuition?* In crisis situations and public health emergencies, the speed of the decision impacts the success of the team. Relying on intuition allows leaders to make effective decisions quickly even though they may not fully comprehend the analysis behind their intuition.

Cognitive Continuum Theory

In 1981 Kenneth Hammond, a prominent figure studying the psychology of human judgment and decision-making, introduced the Cognitive Continuum Theory (CCT). Hammond's theory explains the reciprocity between the analytical and intuitive

systems and categorizes task characteristics into *analysis-inducing* or *intuition-inducing* arguing that the nature of the task determines the decision-making strategy (Okoli & Watt, 2018).

The CCT has three important claims or assumptions. The first assumption is that analysis and intuition are poles or extremes on a continuum and presents the idea that quasi-rationality lies between deliberative (analytical) and intuitive thinking. At the analytical pole, there are a specific set of rules which must be followed allowing only small amounts of information to be processed simultaneously (Custers, 2013). Cognition is fully retraceable and each step in the process can be defended or justified. In opposition, at the intuitive pole, cognition is rapid and implicitly associated with a feeling of conviction (Custers, 2013). Arguably, intuition is an outcome rather than a process as individuals struggle to justify their decisions.

The second assumption is that the requirements of the task, as perceived by the individual performing the task, determine whether the individual will take an analytical or intuitive approach to the task at hand (Custers, 2013). It can be inferred that both cognitive processes and cognitive tasks are gauged on the continuum. Tasks that prompt processing at the analytical pole are those that contain few characteristics that are objectively measurable. They are essential tasks presented without time constraints. In contrast, tasks that contain a multitude of characteristics that are perceptual in nature, contribute proportionally to the solution and are presented simultaneously under time constraints, prompt processing of the intuitive pole (Custers, 2013). These tasks are capricious in relation to the solution and are often redundant.

The third assumption is that in order to achieve optimal task performance, the cognitive approach must be appropriate for the requirements of the task. The nature of the task dictates whether the approach will be analytical or intuitive. An inconsistency between cognitive approach and task properties occurs if the individual uses an intuitive approach on a task that requires an analytical approach, and vice versa (Custers, 2013). It is the connection between the processing mode and the task features that facilitates optimal problem-solving.

Effective decision-making is crucial to the success of nurse leaders. Hammond's Cognitive Continuum Theory provides the theoretical framework to explain nurse leaders' decision-making process. Figure 2 shows the CCT model as it pertains to nursing decisions.

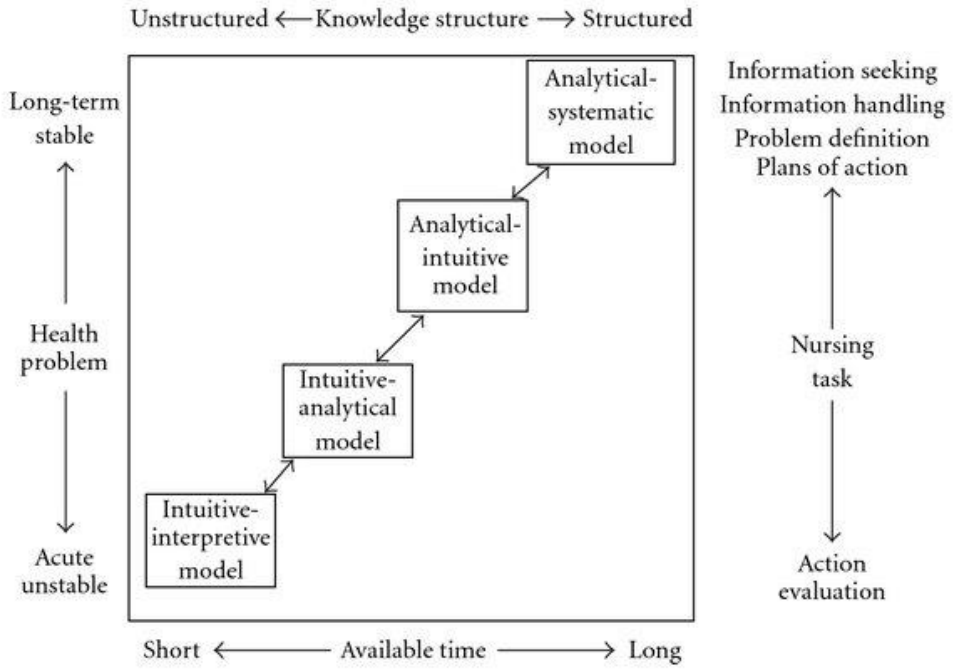

Figure 2. Cognitive Continuum in Nursing Decision-Making

The Cognitive Continuum Theory model explains the reciprocity between intuitive and analytical processes. (Hamilton, 2011).

Summary

There is a long-standing debate over the optimal application of intuition and analysis and the relationship between them when making decisions (Hallo & Nguyen, 2021). As nurse leaders become more proficient over time, their ability to analyze subjective and objective data improves. Nurse leaders are held accountable for the decisions that they make with the time and information that they are given. Problem-solving is rarely entirely analytical or entirely intuitive and it becomes inherently difficult to separate the two. Leaders must be decisive regardless of the circumstances and should be empowered to move between analytical and intuitive thinking. Both analysis and intuition are important components of leadership and decision-making. In crisis situations and public health emergencies, leaders should rely heavily on their intuition and focus on making the *best* decision rather than making the *right* decision. Seasoned experts in high-stakes situations are likely to use rationality only when absolutely necessary.

CHAPTER III – METHODOLOGY

Chapter III presents the design of the research methodology and gives an in-depth explanation of the underlying theory. The circumstances of participant selection and sampling, the setting for the study, procedures for data collection, and data analysis are also discussed. Finally, the role of the researcher and ethical considerations are also discussed. This qualitative interpretative phenomenological (hermeneutics) study examined the individual decision-making process and the role of intuitive judgment as a factor in disaster preparedness and response. Phenomenological research broadens our understanding of an individual's lived experiences and creates opportunities for us to learn from the experiences of others (Neubauer et al., 2019). The researcher also explored the conceptual framework of transformational leadership in conjunction with Benner's *Novice to Expert* theory to provide a better understanding of the meanings applied to the lived experiences of intuition among nursing leaders.

Research Design

The research design refers to the framework of the study. There are types of inquiry within the approach (qualitative, quantitative, mixed methods) that provide specific guidance for procedures in the research study (Creswell & Creswell, 2018). The researcher used a qualitative approach to better understand the behaviors, beliefs, and interactions of the participants. Data was obtained through first-hand observations and semi-structured interviews. The philosophy of hermeneutics behind the design of this study allowed for a holistic observation and interpretation of the lived world of nurse leaders as they experienced crisis situations and public health emergencies. The intent of

phenomenology is to illustrate the meaning of human experience in terms of *what* the individual experienced and *how* they experienced it (Neubauer et al., 2019).

Interpretative Phenomenology

For this study, an interpretative (Hermeneutic) phenomenological approach was used to illustrate and understand the personal experiences of nurse leaders as they faced crises. The researcher began by identifying a phenomenon to direct the study and then investigated the lived experiences of the participants, identifying themes that characterize the participant's experience with the phenomenon (Neubauer et al., 2019). Interpretative phenomenology was chosen as a method to explore intuition as a valid form of *knowing* and how previous experiences and patterns guide the decision-making process.

The Hermeneutic Circle. The researcher applied hermeneutics to the study through interpretative phenomenology using the hermeneutic circle. Conceived by German philosopher Martin Heidegger, the hermeneutic circle represents an iterative cycle of analyses. The concept of the hermeneutic circle is to visualize the *whole*, while deliberately considering the interconnectedness of the *parts* creating a cyclical interpretation (Neubauer et al., 2019). Figure 3 illustrates the hermeneutic circle and the process of rigorous exploration. The researcher developed an understanding of lived experiences by reading the data, formulating a vague understanding, writing reflectively, and re-engaging with a revised understanding of the phenomenon (Neubauer et al., 2019).

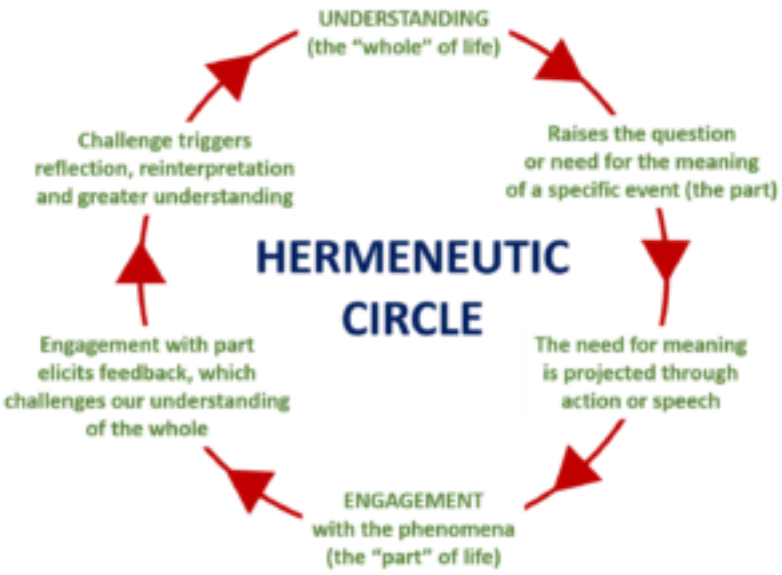

Figure 3. The Hermeneutic Circle

(Ernste, 2018).

Role of the Researcher

According to Sutton & Austin, qualitative research helps researchers access the thoughts and feelings of the study participants, which enables the development of an understanding of the meanings that people ascribe to their lived experiences (2015). Qualitative researchers are charged with the task of reflection, both before and during the research process as a way of providing context and understanding for the reader. As with any research, the role of the researcher includes monitoring and reducing bias, developing competence in research methods, collecting and analyzing data, and presenting the findings. The researcher removed their own beliefs and attitudes in order to focus on the lived experiences of the participants.

The researcher is considered a data collection instrument in this study whose responsibilities include the identification of assumptions, personal values, and biases

prior to beginning the study (Creswell & Creswell, 2018). The researcher recruited participants and ensured they had a positive, safe environment during the interview process. The researcher was the primary investigator responsible for conducting interviews, gathering data from the participants, and observing behaviors and nonverbal communication. The researcher established trustworthiness and always conducted themselves in a professional manner. The interviewer asked open-ended questions, encouraging participants to provide honest feedback as they reflect on their personal experiences. The goal of the researcher was to ascertain an interpretation of intuitive decision-making by nurse leaders in crisis situations such as public health emergencies.

Data collection and analysis are critical. The researcher conducted qualitative, semi-structured interviews. These interactions between the interviewer and the interviewee revealed the meaning of their lived experiences and understanding of the world from the participant's point of view (Creswell & Poth, 2018). To ensure accuracy, interviews were audio recorded, and the researcher was responsible for the transcription and storage of data. The researcher reflected upon the participant's answers during the interview and provided a brief summation before concluding the interview. The researcher was careful to consider their own personal experiences and recognize potential biases so as not to influence the participant's responses.

Research Questions and Interview Prompts

The researcher conducted semi-structured interviews, asking participants a series of open-ended questions, and following up with probe questions to further explore the phenomenon. Semi-structured interviews consist of a dialog between the interviewer and the participant and allow the researcher to dive deeply into the participants' personal

beliefs and explore their thoughts and feelings about the phenomenon (DeJonckheere & Vaughn, 2019). To focus on the perspectives of nurse leaders an interpretative phenomenological approach was chosen. The following two research questions were identified for this study:

1. What is the lived experience and meaning of being a nurse leader in a crisis situation?
2. What effect has intuition had on nurse leader's decision-making process and the outcome of the situation?

These questions were open-ended and focused on the general understanding of the phenomenon (Creswell & Poth, 2018). To provide the opportunity for in-depth interviews, the following open-ended questions were used to guide the conversation and explore the lived experiences of nurse leaders in crisis situations.

- How would you define leadership?
- Are leadership skills something that you are “born with” or are they acquired?
- Does your leadership style vary based on the situation?
- How would you define intuition?
- What are your experiences using intuition in daily decision-making?
- How often do you rely on your intuition when making decisions?
- What effects do your decisions have on your colleagues?
- Tell me about decisions that you have made and their results or unintended consequences.
- How would you define “crisis” or a crisis situation?
- What does it mean to you to be in a leadership position in a time of crisis?

- How did you prepare for your role in crisis management?

These content questions served as sub-questions in the study providing different facets of the central phenomenon (Creswell & Creswell, 2018). Each was explored by the interviewer and prompts such as "Could you explain…" and "Tell me more about…" were provided when necessary.

Ethical Considerations

The ethical protection of the participants was the top priority of the researcher. To protect the study participants and the anonymity of data, approval from The University of Southern Mississippi (USM) Institutional Review Board (IRB) was obtained through the submission of the proposed study (Protocol #22-1561), see Appendix B). The research proposal was reviewed to ensure that the research involving human subjects met all federal guidelines. Before conducting research, a thorough description of the planned research questions, method of data collection, and intended use of the participant data was provided to the participants. Consent to participate in the study was assumed when: 1) participants sign the informed consent, 2) complete and submit the demographic survey, and 3) receive follow-up contact, by phone or email, from the researcher for an interview. Before beginning interviews, participants were informed that their participation in the study was voluntary and may be withdrawn at any time. Interviews were conducted in an environment (via Zoom®) where participants felt comfortable discussing their experiences. All interviews were conducted in private (those done virtually via Zoom® were password-protected) and recorded for ease of transcription and data analysis. All recordings, notes and interview transcription were secured on the researcher's personal, password-protected computer.

Participant Sampling

Criteria

Participants were selected based on organizational hierarchies and participation in the study was voluntary. The researcher recruited participants via telephone, email, and social media based on current professional relationships with the researcher. Purposeful sampling was used to recruit nurses in public health or in the private sector who served in leadership roles in crisis situations and disaster management. Participants completed a demographic survey where age, gender, race, ethnicity, educational background, total nursing experience, and total supervisory experience were recorded. Sampling continued until data saturation was achieved resulting in the repetition of participants' responses during interviews. The data saturation point was 11 participants to achieve an in-depth narrative and understanding of their lived experiences.

Inclusion and Exclusion Sampling Criteria. Inclusion criteria included: (a) nurses working in public health including local health departments or in the private sector who were in supervisory roles during an emergency response situation, (b) nurses who work for disaster response agencies such as the American Red Cross or Samaritan's Purse, (c) nurses within Veterans Health Administration, and (d) nurses with previous military service. Participants were selected based on the following inclusion and exclusion criteria. Inclusion criteria consisted of the following:

1. A valid nursing license.
2. A leadership position based on the hierarchy of the institution.
3. A current or previous position of leadership with executive decision-making capabilities.

4. A minimum of a Bachelor of Science in Nursing (BSN).

Exclusion criteria include the following:

1. An invalid nursing license for any period of time during their (active) nursing career. This excludes nurses who have retired from the profession.
2. Nurses who did not graduate from nursing school with at least a bachelor's degree.
3. Nurse leaders who do not have previous experience in disaster management.
4. Nurse leaders who do not have the autonomy to make executive decisions.

Justification for Sampling Criteria. A valid nursing license must have been held during the participant's active nursing career to ensure that the participant was legally able to perform the duties of the job for the entirety of the experience. Participants who have retired from nursing remained eligible to participate. The researcher included participants who have experience in disaster preparedness and response including disaster management during public health emergencies, natural disasters, and military service response. The criteria of having graduated with at least a bachelor's degree in nursing was chosen to exclude those with limited decision-making capabilities.

Data Collection

The accuracy and credibility of the study depends on its authenticity in addressing the phenomenon. Once consent was obtained and the participant demographic survey was complete, data collection was performed using first-hand, semi-structured in-depth interviews. Semi-structured interviews allowed the researcher to guide the pace of the interview and use a conversational tone to adjust the questions if necessary (DeJonckheere & Vaughn, 2019). Before beginning interviews, participants were

reminded that interviews were being recorded for accuracy of transcription and that he/she/they could have terminated the interview at any time. Interviews were conducted in an environment where participants felt comfortable discussing their experiences and were initiated using open-ended questions. Interviews were completed in no less than 30 minutes and no longer than two hours and were audio and video recorded via Zoom® for accurate, verbatim transcription by the researcher. Transcriptions were secured on the researcher's personal password-protected computer. While listening to participant responses, the researcher took notes on body language and emotional responses observed during the interviews. There were an equal number of interactions with each participant.

Data Analysis

According to Creswell and Creswell (2018), data analysis in qualitative research requires following sequential steps. The researcher began by transcribing interviews and typing up field notes. To ensure accuracy, the researcher then listened to the recordings again while reading the interview transcript. The transcriptions were reviewed in their entirety several times to allow the researcher to immerse themselves in the data and reflect on the overall meaning. As the researcher read the transcript, she made notes in the margin, recording general thoughts about the data. After reviewing the transcriptions, the researcher began coding recurrent themes for analysis, making note of similar thoughts and words expressed by participants. Thematic analysis generated major findings for use as headings in the findings section of the study.

Hermeneutics allowed the researcher to expose hidden meanings and required the researcher to interpret the human experience until they reach sensible meanings of the experience that are free from inner contradiction (Dangal & Joshi, 2020). The researcher

used a *circular process* (hermeneutic circle) to analyze the data, questioning prior knowledge and expanding into new meanings. Phenomenological data analysis required the researcher to set aside all predispositions toward the phenomenon and keep their subjectivity to a minimum.

Quality and Rigor

According to Gray, Groves, and Sutherland (2016), rigorous qualitative researchers are characterized by openness and flexibility while ensuring the data collection methods coincide with the underlying philosophical perspectives. It was the responsibility of the researcher to ensure that data collection was comprehensive and that the analysis yielded the perspective of the participants. To minimize the risk of bias and maximize the credibility of the research, the researcher recorded data objectively and comprehensibly.

Summary

The purpose of this study was to explore the lived experiences of nurse leaders using intuition as part of the leadership approach in crisis situations. Guided by interpretive phenomenology, the researcher conducted interviews, collected data, and looked for common themes. This chapter discussed the population for the research, the role of the researcher, and the process by which data was collected and analyzed. Chapter IV will discuss research findings and analysis of the data.

CHAPTER IV – PRESENTATION AND ANALYSIS OF DATA

The results from the qualitative analysis will be reviewed in this chapter and the researcher will describe the data analysis process used to provide a descriptive summary of the real-life application of intuition when dealing with rapidly fluctuating situations. The purpose of this qualitative interpretative phenomenological study was to examine the lived experiences of nursing leaders using intuition as part of the leadership approach in crisis situations and disaster management. In review, the open-ended interview questions were aimed at answering the following primary research questions:

1. What is the lived experience and meaning of being a nurse leader in a crisis situation?
2. What effect has intuition had on nurse leader's decision-making process and the outcome of the situation?

Description of Sample

The sample population was recruited by distributing a brief explanation of the study via email and social media to nurses who had a current professional relationship with the researcher. Purposeful sampling was used to recruit nurse leaders in public health and in the private sector who served in leadership roles in crisis situations. The 11 study participants represent a variety of nursing leadership roles and experiences. Each participant was selected based on their organizational hierarchies and study inclusion criteria. Participants completed a demographic survey where gender identity, current age, ethnicity, marital status, educational background, total nursing experience, and total supervisory experience were assessed. All interested nurse leaders who met inclusion

criteria were invited to participate in the study. Table 2 below presents basic demographic information on the study participants.

Table 1

Participant Demographics

Demographics	**Choices Provided**	**Number of Participants**
Gender Identity	Female	8
	Male	3
	Non-binary	0
	Transgender	0
	Prefer not to answer	0
Current Age in Years	18-24	0
	25-34	2
	35-44	2
	45-54	3
	55-64	3
	65-74	1
	75+	0
Race/Ethnicity	American Indian or Alaskan Native	0
	Asian	0
	Black or African American	0
	Hispanic or Latino	0
	Native Hawaiian or Pacific Islander	0
	White or Caucasian	11
	Prefer not to answer	0
Marital Status	Divorced	0
	Domestic Partnership	0
	Married	9
	Single	1
	Widowed	1
	Prefer not to answer	0
Highest Level of Education	Bachelor's Degree	3
	Master’s Degree	5
	DNP	1
	EdD	0
	Ph.D.	2

Table 1 (continued).

Highest Level of Education	**Bachelor's Degree**	**3**
	Master's Degree	5
	DNP	1
	EdD	0
	PhD	2
Highest Level of Nursing Education	Bachelor's Degree	4
	Master's Degree	4
	DNP	1
	EdD	0
	Ph.D.	2
Years of Experience as a Nurse	0-5	1
	6-10	0
	11-15	3
	16-20	1
	20+	6
Years of Experience in a Leadership Role	0-5	1
	6-10	5
	11-15	0
	16-20	1
	20+	4

Four additional nurse leaders expressed interest in the study and completed the demographic survey but failed to follow-up with the researcher to schedule an interview. Their demographic information was eliminated from the reported information in the table above. Of the sample population (N=11), eight identified as female, three identified as male, and all 11 are currently working within the nursing profession in leadership roles. The ages of the nurses ranged from 25 to 74 years old with a wide range of nursing experience from three to 20+ years. All study participants were of White/Caucasian race/ethnicity. Four of the participants hold a BSN, four hold and MSN, one holds a DNP, and two hold a Ph.D. as their highest level of nursing education. three of the participants hold degrees outside of nursing including: (1) Master of Public

Administration, (1) Master of Health Care Administration, and (1) Associate of Applied Science in Emergency Medical Services. Also noteworthy is that two participants have military experience in the United States Air Force and the United States Army.

During the interviews, participants were encouraged to take their time and provide honest responses about their leadership experience and the decision-making process. The researcher established trustworthiness by conducting themselves in a professional manner and assuring the participants that the environment was a safe space to share their responses.

Process of Gathering Data

The researcher is considered a data collection instrument in this study. Serving as the primary investigator, responsibilities of the researcher included the identification of assumptions, personal values and biases prior to beginning the study (Creswell & Creswell, 2018). The role of the researcher included monitoring and reducing bias, conducting interviews for data collection, and analyzing data and field observations. The researcher was mindful of their own beliefs and attitudes as to focus on the lived experiences of the participants.

For this study, the researcher conducted qualitative, semi-structured interviews, asking participants a series of open-ended questions and followed up with probe questions when needed. Participants were recruited via email and social media (Facebook) utilizing a recruitment flyer designed by the researcher (see Appendix C). Nurse leaders who expressed interest in the study were sent further information and inclusion criteria via email. Once inclusion criteria were met and upon completion of the demographic survey, participants were contacted to schedule a virtual Zoom interview at

their convenience. Prior to interviews, participants completed an electronic consent form which reminded them that participation was voluntary and could be terminated at any time. Interviews were conducted until data saturation was met which resulted in eleven interviews. Interviews lasted an average of 30 minutes and were conducted in an environment where participants felt comfortable discussing their experiences. Interviews were audio and video recorded via Zoom® for accurate, verbatim transcription. Interviews were exported from Zoom® into Microsoft Word® documents. Recordings were listened to no less than twice by the researcher as the Zoom® transcriptions were reviewed and verified for accuracy. Data emerged from interview transcriptions and field notes. Field notes were handwritten during interviews and accrued over the course of data collection. The researcher took notes on body language and emotional responses observed during the interviews and while reviewing recordings.

Following transcription of each interview, the researcher utilized interpretative (Hermeneutic) phenomenology to understand and reflect upon the personal experiences of the participants. The interpretive work of hermeneutic phenomenology is not constrained by a particular set of analytical techniques; instead, it is a process involving multiple analytical activities (Neubauer et al., 2019). The *circular process* (hermeneutic circle) of analyzing data allowed the researcher to identify recurring themes from each nurse's responses to the interview questions. The researcher began by identifying intuition as a form of *knowing* as the phenomenon and then progressed to the descriptive phase where data was obtained from in-depth interviews and close observation of the participants. Emerging themes were categorized in Excel® and color coded for ease of reference. The coding document was used to organize the nurse's responses and

determine the best approach to address each research question. The quotes were copied into the Excel® document under each corresponding interview question and theme. Interview questions and participant responses will be reviewed in the sections to follow.

Description of the Findings by Interview Question

The findings of this study are organized by significant statements within the interview question responses. The purpose of phenomenological research is to reduce the individual experiences of the participants with a phenomenon to a description of the universal essence (Creswell & Poth, 2018). For this study, the phenomenon, or the object of human experience, is the utilization of intuition as part of the decision-making process. The findings of this study are organized by the following predetermined coding categories: leadership, crisis and crisis situations, intuition, and decision-making. Subcategories or themes for each category were identified from participant responses and interview quotes. The following themes emerged when defining the lived experience and meaning of being a nurse leader in a crisis situation: trust, competency, attentiveness, and confidence. When discussing the effect that intuition has on nurse leader's decision-making process, participants revealed that intuition comes with experience, and it is a driving force when making decisions in uncertain circumstances. These themes were supported by Hammond's Cognitive Continuum Theory and Patricia Benner's Novice to Expert model. These themes will be described in greater detail in the following section.

Leadership

How Would You Define Leadership? The first question asked the participants to define the term *leadership.* Definitions of leadership varied, but several themes emerged. The first overarching theme that was identified by all the participants was trust.

Recognizing that leadership is a process that occurs between the leader and their followers (Knebel et al., 2012), Participant 3 said, “it’s the ability to gain the trust of people. You gain enough trust to follow your lead.” Other participants made statements such as, “Leadership is the ability to connect with others” (Participant 4), and “Leadership is someone who can not only lead, but also guide and push others to excel,” (Participant 5). Participant 7 stated, “Making sure that they trust you, and they know that they can come to you about anything without feeling like you’re going to degrade them.”

The second theme identified by participants was competency. Participant 2 stated, “I think trust and competency in the leadership role go hand-in-hand,” while Participant 11 stated, “Leadership is the ability to support your staff and establish the trust with your staff that if you make a decision, knowing that sometimes you’ll be right and sometimes you’ll be wrong, that they trust you.” Some participants spoke about leadership qualities and the type of leader that they aspire to be which included statements such as, “I’m very democratic. I want to hear the voices of other nurses, especially those that are more experienced than me in the nursing field,” (Participant 1) and “As a leader, you don’t ever ask somebody to do something that you are not willing to do yourself,” (Participant 3). Participant 4 reported that he wanted clear communication stating, “I like direct feedback. I like to know what the expectations are and the accountabilities.”

Participants also reported that they wanted leaders who were attentive to the situation and the needs of the team. Participant 5 stated, “You want a leader who can see things not only from the bottom level, but also at 30,000 feet. Someone who listens to everybody from the bottom to the top.” Participant 6 stated, “I aspire as a leader to be a really good listener. I aspire as a leader to be a really good observer.”

The last theme that emerged was confidence. Participants voiced that they wanted a confident leader and that they wanted to be confident leaders. Being trustworthy was something that they looked for in a leader but also something that they aspired to be for their followers. Participant 9, a United States Air Force veteran, stated, “Our leaders should be confident. Being friendly and confident were characteristics that really made an impression on me.” Participant 3, a United States Army veteran, stated, “Having their trust. In that, they provide me the autonomy to do what I feel is best in the moment. Right, wrong, or indifferent.”

Do You Think Leadership Style Varies Based on The Situation? Participants were asked to discuss the adaptability of their leadership style based on the situation at hand. Participants agreed that leadership must adapt to the ever-changing situation and that it fluctuates based on the team with whom they are working. Participant 2 stated, “Absolutely. I adapt to the situation, to the circumstance, and to the people involved.” Other participants stated, “I feel like it has to,” (Participant 3) and “ I think, absolutely depending on the circumstance, it can change,” (Participant 1). Experienced nurse leaders cited experience and versatility as a critical component of their transformational leadership. Participant 10 stated, “My leadership, I will say, has changed as I’ve experienced different situations.” Participant 4 stated, “I would completely agree that you have to be able to be versatile and be able to adapt in the moment and change leadership styles to the circumstances that you’re presented.”

Participants also felt like it was important to “know your audience.” Participant 2 recognized that “you need to know how hard you can push and when you need to pull back.” Participant 3 stated, “You have to know and understand who you’re talking to, the

motives of yourself, as well as the motives of the party that you're with." When asked about adaptations to leadership style, Participant 3, a United States Army veteran, stated, "Particularly in the difference between the military and nursing leadership. In the military, I outrank you. You're going to do what I told you to do. That doesn't work in the civilian world."

Are Leadership Skills Something That You Are "Born With" or Are They Acquired? This question was posed as a follow-up to the previous questions where participants defined leadership qualities that they possessed and valued. When asked if they felt leaders were *born* or *made*, many participants suggested that it was a combination of the two. Participant 2 stated, "I can't imagine you're born with everything that you need in life so I think if you're open to learning, you will learn it along the way." Participant 4 agreed stating, "I think there are some innate leadership qualities. People that just stand out. But I think there are definitely some leadership qualities that are learned along the way," and Participant 8 told the researcher, "I think you learn some characteristics that good leaders have or from people around you."

Two participants expressed that they felt leadership qualities were innate. Participant 5 stated, "I think in many ways leaders are born. Some just have the natural ability to lead," and Participant 3 stated, "I think in some very rare circumstances it can be learned and/or taught and I think a lot of it has to do with the repetitive nature of training." Overall, all participants felt that leadership qualities could be improved with time and experience.

Crisis and Crisis Situations

How Would You Define a Crisis or a Crisis Situation? Participants of the study include nurse leaders from the private and public sector and represent a variety of nursing specialties including critical care, public health, pediatrics, disaster management, and education. When asked to describe a crisis situation, many participants referenced the COVID-19 pandemic stating, "None of us knew anything. That was something new. It was different. We were fighting the elements," (Participant 2) and "When COVID sprang up I had a huge issue of keeping staff as well as having staff that is competent enough to take care of ICU level COVID-19 patients," (Participant 1). Participant 10 stated, "In the beginning of it (COVID-19) it got my blood pumping because this is what we do. This is public health." She later admitted, "I do not think we did a good job of saying, 'Okay, we've been reacting. We have to stop and regroup as a leadership team and figure out how we're going to manage this'." The external crisis that was the COVID-19 pandemic, created internal struggles for nursing leadership. Participant 10 reported, "I had public health nurses working weekends and working 21 days in a row without a day off," while Participant 1 stated, "There came a point where nurses who were charge nurses and unit leaders had to step in and fill bedside nursing jobs because we didn't have the staff," Participant 10 remembered the magnitude of the situation stating, "Our culture of 'work till you die' truly, truly hurt us." She elaborated further by saying, "I remember laying on my floor in here (my office) because I felt literally responsible for the life of every person in my county."

Other nurse leaders cited events such as staffing shortages, conflict in the workplace, and natural disasters when speaking of crisis situations. Participant 4 stated, "I think we all work from crisis to crisis." He elaborated by stating, "it could be not

having enough nurses or having a tragedy on the unit like losing a child unexpectedly." In response to the crisis at hand he stated, "I try not to go to that crisis state because, as the leader, folks are looking at me. If I enter that emotional state of crisis, I think I lose my focus on leading folks through it." Participant 5 spoke of her deployments with the American Red Cross. She told the story of responding to an earthquake in California stating, "We are nurses. We are adaptable. I went there and I met the needs of the people in the shelter." Responding to the needs of a shelter where more than 250 people were housed, she stated, "I didn't know any of the policies. Didn't know the paperwork. I just did what I had to do." Participant 9 spoke of early days in his nursing career stating, "The first crisis I encountered was HIV/AIDS." He went on to say, "It was my first public health emergency. It was out of the ordinary and different than our usual work. It scrambled our day-to-day activity." He recalled the process of counseling and testing patients for the communicable disease stating, "We had to take them into a room and sit them down and explain to them that they were positive and that was like telling them they were going to die." He verbalized that the work was "really interesting. It was really challenging and really rewarding work."

One common theme among the leaders was that crisis situations, at some point, began to feel like "normal work." Participant 9 told the researcher, "With a crisis, it just turns everything upside down and it changes how you do your regular normal day-to-day activities." Participant 3 stated, "What some of my coworkers defined as a crisis, I defined as 'okay, here we go again.' I don't think it's numbing. I just think you get a perspective or have a certain reference point that changes with experience." He also commented on the perceived response to uncertain circumstances stating, "I feel like

people respond in three ways to a crisis situation: (1) they run toward the crisis to affect the change, (2) they stand around frozen, unable to act, and (3) they flee."

How Did You Prepare for Your Role in Crisis Management? Participants were asked how they prepared for their role in crisis management and if they truly felt as if they were prepared for their role. Some participants felt that with proper training and experience, leaders can go into a situation with confidence. Participants stated, "I think past experience is probably the biggest one for me when going out on disasters," (Participant 5), "I think emotionally, you're not ready. But I think having an algorithm to follow and having a structure in place is important," (Participant 4), and "I do believe it's important that you know the preparedness stuff. There is a reason for the plans," (Participant 10). Participants 1 and 11 felt differently. Participant 1 stated, "We have policies in place for crisis situations, however, I'm not sure how well they were carried out when we were actually put into the position." She expanded by stating, "Everything is different on paper. Paper is perfect. But it is hard to implement those things when you don't actually have all the requirements to carry out those plans on paper." Participant 11 agreed stating, "No, I didn't feel prepared and still some days I am probably not prepared."

Intuition

How Would You Define Intuition? Participants were asked to define intuition as a concept. One overarching theme was that intuition is a feeling. Participants stated, "It's a very physical response," (Participant 11), "I would say it doesn't have a clear definition. I would describe it as an internal feeling that I act on," (Participant 10), "For me, it's a feeling that either says, 'yeah this is the right thing to do,' or 'oh no, don't do that,'"

(Participant 2), and “It’s a feeling and it’s a vision. A feeling of needing to act in a certain way because you feel like something is coming,” (Participant 4). Participant 11 stated, “Even though this may not be the decision that everybody else is making at the time, your heart or your stomach or your body is telling you to do this.” She expanded by saying, “Your brain, whether it’s pulling on a memory or on an experience in the past or it’s pulling on data that your brain can’t even assess at that time, it's telling you to listen.”

Another theme that emerged was experience as a driving force for intuitive decision-making. Participants agreed that intuition comes with experience. Participant 9 stated, “After you’ve been working in a profession long enough, you have enough background and experience to know when you might be getting snowed by people.” Participant 10 reported, “I use my intuition based on experiences that I have had,” and Participant 4 stated, “It’s emotional intelligence. It’s situational awareness and experience.” Participant 3 shared, “I feel like intuition comes from experience. Lived experience. Not so much from referred experiences where you hear about somebody else.” He went on to say, “I think that intuition comes from actually doing. It sort of becomes that mental muscle memory to some degree.” However, he cited the COVID-19 pandemic as an exception to that theory. He explained, “COVID was the real equalizer in turning that theory on its’ head.” As an ICU nurse, he remembered relying on what he knew about medications, lab values, and critically ill respiratory patients to get him through the ever-changing situation even though he had no prior experience with that specific virus or a global pandemic.

What Are Your Experiences Using Intuition in Daily Decision-Making?

Participants were encouraged to share their experiences utilizing intuition in their

decision-making process. Participant 3 shared his experience as a squad leader and non-commissioned officer with the United States Army. He recalled working in long-range surveillance, operating as part of a three-man team. The three-man teams consisted of one person cross-trained medical, one person cross-trained communications and intelligence, and one person cross-trained engineering and demolition. As the medical member of the team he states, "you're out there on this three-man team. You don't have anybody else." Remembering the lack of available resources he stated, "You have to be able to make decisions on the fly and you have to be able to support the decisions that you make. You're making decisions that these two other people with you rely on you for. My decisions kept us alive or didn't put us in harm's way."

Participant 4 who serves as the Director of Nursing in pediatrics recalls, "We had a really, really heavy respiratory season early on and ended up bring in a whole bunch of travelers (nurses) because the intuition was that it was going to be a bad winter." He describes his previous experience with similar situations stating, "You bring in history. You bring in data. You bring in trends and then the more knowledgeable that you can be on patterns and structure because things repeat themselves." As a leader he stated, "we can look at our data in pediatrics and I can tell you exactly what my busiest days are. I can tell you when I'm going to spike seasonally." He followed up by stating, "Knowing and seeing and forecasting all of that is being intuitive. You're using the data at the same time you've got your gut feeling, your intuition. You're bringing it all together."

Decision-Making

How Often Do You Rely on Your Intuition When Making Decisions? When discussing how nurse leaders make decisions, participant 2 stated, "I use data. I know the

rules and regulations, but I also remember that I am dealing with human beings. That's where my intuition plays in because I never ever want to forget the human side of what we do." Participant 11 echoed stating, "I feel like I have a variety of experience to draw on and even if you don't recall all of the facts, you can recall the feelings or the reactions of whoever you were talking to or dealing with." As participants expanded further, they spoke about whether or not they trusted their intuition. Nurse leaders stated, "I've been a nurse a nurse for 18 years. I will listen and guide anybody to listen to their intuition above data any day of the week," (Participant 11), and "The times that I have not listened to it in my personal life and somewhat in my work life, it has come back to bite me," (Participant 2). Participant 3 stated, "I use my intuition a lot and I very much trust my intuition." Participant 3 was confident in his intuition stating, "I am much more apt to trust my intuition than most. I don't know of a time when my gut said that something was wrong, that I was incorrect."

Participant 1 who was the youngest participant and had the least amount of nursing experience, when asked about utilizing her intuition she stated, "I've been shot down multiple times, especially by upper-level management." She revealed that her willingness to voice her opinion and her intuition depends largely on with whom she is working. She admitted that her lack of experience is problematic stating, "It's 50/50 that I trust it. In a clinical decision, I am very confident in my recommendations. But, in a more administrative viewpoint, I'm more 50/50 on what I bring up because I get shot down a lot more."

What Effects Do Your Decisions Have on Your Colleagues? Participants were asked to consider the effects that their decisions had on their colleagues, peers, and direct

reports. Participant 1 reported being the president of Unit Practice Council, representing her staff when presenting necessary changed to hospital administration and upper-level management. She admitted that she is willing to put her own feelings aside for the good of the unit stating, “I put it on the sidelines because I don’t want it to hinder me in being the voice of the unit in the hospital.” She elaborated by stating, “I’m taking on that role and standing up. If I back down, they’re (the unit staff) not really getting a true leader.”

Participant 7, who currently works as a Clinical Safety Specialist, stated, “I feel like my intuition has to be up a notch to make sure that I’m looking at everything appropriately and getting all the information that I need.” In her role, she reviews adverse events involving patients that occur within the hospital. She stated, “In my role, I am reviewing charts and it is my responsibility to determine if it warrants further investigation or a Root Cause Analysis.” She went on to say, “We may actually realize it’s a certain employee. Nurses are busy. They’re trying to help others and things occur. Errors happen.” She explained that her decisions and investigations directly affect her coworkers. She stated, “we do a lot of second victim education. We look at the ‘what if’ and ask what we could have done differently.”

Tell Me About Decisions That You Have Made and Their Results or Unintended Consequences. Participants were asked to recall instances in their careers when the decisions that they made had unintended consequences. One nurse leader, Participant 5, spoke of a medication error that occurred while making rounds with a student. She stated, “As a clinical instructor, I told my group, ‘If I am doing medications, don’t talk to me and don’t talk to the student’ because we are very, very vulnerable at that time.” She admits to going against her own policy and allowing other students to approach her with

questions during medication administration. She stated, “I answered their questions and turned back to the student preparing meds. We went through the medication administration report and gave the patient her medicine.” After administering medications, the student and the instructor verified medications given and realized that the patient was given an incorrect dosage of Lasix. She states, “I immediately went and checked the patient, and I owned the error and made it a teaching moment for students.” She went on to say, “In post-conference we talked about it, and it was the only med error I’ve ever made in my career.” The participant realized that the decision she made, by going against her own personal policy, resulted in a medication error that could have had adverse effects for the patient.

Participant 11, a nurse leader in public health shared, “COVID was hard on everyone here. I had two nurses, our nursing supervisor, and our provider leave in a short span of time.” She spoke of a negative atmosphere that was taking its’ toll on the employees in the department. She recalled a staff meeting where the Health Director approached the staff about their satisfaction within the agency. She stated, “she very calmly said, ‘hey if you’re not loving your job or at least happy enough to want to come to work every day and treat your patients and our clients well, we don’t hold that against you.’” She said the Health Director continued by saying, “Maybe it’s time for you to make a change and I just want you to know that that’s okay.” The unintended consequence of that conversation was the resignation of six employees within a two-week time period. The participant stated, “I saw her reflect on that and I saw her struggle with that. But I was able to support her 100% and tell her that I thought she had done the right thing.” She went on to say, “she wasn’t ugly, she didn’t call anyone out, she didn’t pick

on anyone in particular. She just told them that if they weren't here for public health, then she understood." Looking back, the participant realized that the situation was difficult at the time but, in the long run, the change has been good.

Participant 10 who is currently serving in a leadership role in public health, spoke of the COVID-19 pandemic and how the decisions that were made during that time had unintended consequences for herself and her staff. She stated, "before and during the pandemic we had many discussions about being reactive." She acknowledged that a change in leadership contributed to the reactivity and their modeling of behavior directly impacted her staff. She spoke of a leadership team that she classified as "high functioning, high performing perfectionists. We were telling our staff that they needed to take their weekends, but our behavior was not showing it." She became emotional as she reflected on her staff members during the height of the pandemic. With her head in her hands she stated, "I have seen staff have mental health crisis from this. We are part of the community. It was happening to all of our staff, and I do not think that we talked about it or acknowledged it." Realizing that there was work to be done and the community needed care, she felt that they did not adequately care for their staff. She revealed, "We had this work to do, and we had staff whose mother was dying of COVID and who had children at home because there was no childcare." She admits that those were unintended consequences of making decisions for the rest of the community.

Leadership in Crisis Situations

What Does it Mean to You to be in a Leadership Position in a Time of Crisis? The last interview question elicited an emotional response from participants as they explored their leadership role during a crisis situation. When asked what their role meant to them

and if they were glad that their peers looked to them for leadership, Participant 8 stated, "I truly am. If I could demonstrate to the team that we can make this work. We can do this together. We can rely on the team. You can come to me with what you need, and I'll make it happen." Participant 6 stated, "I would use the word humble. I would use the word grateful. Because I have had the lived experience of being able to work with some of the greatest leaders ever," and Participant 10 reported, "I am proud. We did amazing work, and I am very, very proud of it. I could create a list of all the different things we have done that make me very, very proud and I feel like our community benefitted. I wouldn't change it." Participant 4 stated, "It's a privilege is what it is. To have folks look to you and lean on you. You're in a position to have a great deal of impact on many lives." He went on to say, "In my world of pediatrics, I've got little lives here in my hands. I'm expected to set the quality and safety standard and to uphold it. It's a place of vulnerability. It's a big position but it's a privilege."

Summary

Chapter IV included a review of the qualitative data analysis. Semi-structured interviews were conducted with 11 participants exploring their lived experiences of being nurse leaders in crisis situations. Each interview was carefully analyzed by the researcher and the findings were organized by significant statements within the interview question responses. Each interview question in the study was reviewed and participant results were listed. Chapter V will provide discussion of the conclusions of the study and recommendations for further research.

CHAPTER V – DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

In this final chapter, the results of this qualitative interpretative phenomenological (hermeneutics) study will be discussed. Each research question will be addressed, and applicable findings will be explored. The purpose of the study was to examine the individual decision-making process and the role of intuitive judgment as a factor in disaster preparedness and response. The 11 participants were nurses working in public health or in the private sector who served in leadership roles in crisis situations. The study participants represent a variety of nursing leadership roles and experiences. Each participant was selected based on their organizational hierarchies and study inclusion criteria. The research questions used to explore the lived experiences of nurse leaders in crisis situations include:

1. What is the lived experience and meaning of being a nurse leader in a crisis situation?
2. What effect has intuition had on nurse leader's decision-making process and the outcome of the situation?

11 open-ended interview questions corresponded with the two research questions. Questions were answered voluntarily by participants, indicating that the questions were applicable to the research topic and nurse leader's experiences. The data resulting from one-on-one, semi-structured interviews was transcribed, reviewed, and analyzed rigorously. The findings were organized by significant statements within the interview question responses.

The literature review revealed that intuition, as it pertains to the decision-making process, had not been empirically investigated in a group of nurse leaders. For that reason, the purpose of this study was to explore the lived experiences of nurse leaders using intuition as part of the leadership approach in crisis situations. Chapter V discusses the conclusions of this study's findings, limitations, implications for nursing practice, and recommendations for future research in this area.

Discussion

What is the Lived Experience and Meaning of Being a Nurse Leader in a Crisis Situation?

Qualitative data analysis was utilized to address research question one and examine the lived experiences of nurse leaders in crisis situations. To capture the subjective, first-person point of view of nurse leaders, the researcher used a phenomenological approach by conducting semi-structured interviews via Zoom®. Participants were asked a series of open-ended questions and spoke about their leadership experiences in times of uncertainty. An interpretative phenomenological (hermeneutics) approach was chosen for this study because it explores the perspectives of the participants who have experienced the phenomenon.

Nurses participating in the study were verbally expressive about their roles in leadership and field observations revealed nonverbal responses elicited by interview questions. At times, many participants struggled to find the words to adequately describe their experiences which resulted in the repetition of questions by the researcher, long pauses by the participant, and noticeable changes in body language. Within the interviews, participants were provided adequate time and opportunity to answer honestly

and thoughtfully. Participants were asked to describe what their role in leadership meant to them. The following conclusions are inferred based on the findings of the study and significant statements within participant responses:

1. Participants associated great leadership with the ability to develop and maintain trustworthy relationships.
2. Participants agreed that confidence in their leadership abilities develops over time.
3. Participants felt having "soft skills" such as emotional intelligence create a better working environment. Listening to staff and being kind are skills that are often overlooked but prove to be very important.
4. Participants are proud of their role in leadership and realize the magnitude of their decisions and how they affect others.
5. All of the participants reported that they never set out to be in a position of leadership.

Trustworthy Relationships and Transformational Leadership. Nurse leaders participating in the study associated great leadership with the ability to develop and maintain trustworthy relationships. Leaders are responsible for communicating their vision for the future through their words and actions (Wagner, 2018). In accordance with this research's findings, participants recognize that trusting relationships must be built prior to crisis response. When faced with emotion-laden circumstances, nurse leaders must understand emotions and apply that understanding to the situation. Researchers suggest that leaders who are more sensitive to their emotions and the impact that their emotions have on others will be more effective leaders (Northouse, 2016). Participants

agreed that emotional intelligence plays a significant role in the success of their team. In crisis situations, nurse leaders must be mindful of their actions and model good behavior. Responses by nurse leaders indicated that in uncertain circumstances and crisis response, caring for their staff was overlooked and admit that emotional intelligence was a missing piece of the puzzle. Participant 10 shared her experience with overworked staff and how she offered them time off and even free mental health counseling to deal with the emotions of a global pandemic. She stated, "I offered them help and they wouldn't take it because they felt like they couldn't stop working." She then realized that the behavior that she was modeling was not the culture that she wanted to create. She stated, "It took me a year and a half into the pandemic to realize that I had to change me." Emotional intelligence utilizes self-awareness, self-regulation, and motivation to persist in the face of frustration and regulate one's mood to keep stress and distress from overwhelming the ability to think (Wagner, 2018).

Having worked through crisis situations, participants of the study reported a sense of pride and accomplishment in their roles as nurse leaders. As leaders in the nursing profession, they recognize the importance of analyzing a situation quickly, formulating a plan, and implementing strategies for success. Participants reported that their leadership skills adapted based on the situation at hand. Many of the participants admitted that there were times during a crisis that they did not have a clear understand of *what's next.* This lack of clear direction forced them to become transformational leaders. Emphasizing the relationship between the leader and their followers, transformational leadership motivates followers to do more than what is expected of them by (a) raising the followers' level of consciousness about the importance of the goal, (b) convincing follower to move beyond

their self-interest for the sake of the team, and (c) move followers to acknowledge higher-level needs (Northouse, 2016). In times of uncertainty, participants in the study focused on the relationships they built with their teams to carry them forward. These transformational leaders could see the situation in its' entirety and recognizing that change needed to occur. They understood the extent of the crisis and evaluated all available information before responding. Participants stressed the importance of connecting with their teams in that moment, adequately conveying their purpose for choosing a particular path, and providing as much information as possible. Participant 4 stated, "You cannot build a house on sand. Anytime you are going to ask others to go with you or follow you, I think you have had to go through a period of gaining their trust."

Accountability and Innate Leadership Qualities. Nurse leaders are accountable for the decisions that they make with the time and information that they are given. They are role models for their peers and have an overarching goal to protect the health and safety of the community. Leadership can be observed in behaviors, and it can be learned through lived experiences (Northouse, 2016). Though the researcher found very few studies incorporating nursing leadership in crisis situations, findings from the study suggest that leadership roles may be emergent rather than assigned. The individuals participating in this study were confident in their performance and willing to lead others in uncertain circumstances which encompasses leadership as both a trait and a process. Each participant had unique inborn qualities that make them leaders, but all were willing to learn from the process to make them more effective in their leadership abilities.

One commonality among all eleven participants indicated that they did not set out to be leaders. Some individuals are leaders because of their formal position withing their organization, and others are leaders because of the way people respond to them (Northouse, 2016). Participants spoke about leadership qualities that they possess and the type of leaders that they aspire to be but when questioned about the trajectory of their career, unanimously they responded that being a leader was not a goal of theirs. Participant 3 reported being content in his nursing role stating, "I was going to be an ICU nurse for 25 years. I could have cared less about being in nursing leadership or nursing management." Participant 6 stated, "I graduated with my BSN and swore that I would never go back to school. Now I have a Ph.D. I love to mentor, and I think that's something else with leadership." Participant 8 reported discontent with former leaders stating, "I came into this position because I had a bad experiences with somebody who was my leader. I wanted to be the difference and I wanted to support my staff," while Participant 11 told the researcher, "Oh gosh, no! I was perfectly happy being a worker bee. I was kind of put into a role and it ended up being a lot bigger job than I anticipated but I wouldn't trade anything for that experience now." While all of the participants are identified as leaders based on the organizational hierarchy of their agency, their leadership qualities are easily recognizable. When others perceive an individual as an influential member of the organization, regardless of their title, the individual acquires emergent leadership through others who acknowledge and support that individual's behavior (Northouse, 2016).

What Effect Has Intuition Had on Nurse Leader's Decision-Making process and the Outcome of the Situation?

Qualitative data analysis was utilized to address research question two and examine the effects intuition had on nurse leader's decision-making process and the outcome of the situation. The concept of intuition involves translating a continuous flow of lived experiences into action (Okoli & Wyatt, 2017). Developing intuition is a gradual process that comes with experience, and it is an inexplicable feeling of certainty allowing us to make decisions when solutions are not obvious. A review of the literature reveals intuition as a thought process that occurs automatically and nearly unconsciously (Malewska, 2018). In times of crisis, the speed and accuracy in which leaders make decisions directly impact the success of the mission. Participants in the study are experienced intuitive decision-makers. Their ability to arrive at a solution without conscious awareness shows the correlation between experience and decision-making. This allows them to quickly process the situation and produce accurate responses with limited information.

In reference to Table 1 in Chapter IV, nursing leadership experience varied greatly among participants. Of the 11 nurse leaders, one participant had zero to five years of leadership experience, five participants had six to10 years of leadership experience, one participant had 16-20 years of leadership experience, and four participants had more than 20 years of leadership experience. This information is key when considering the overall perception of the participants. Each participant reported that when making intuitive decisions, experience matters. Nurse leaders in the study have built a substantial knowledge base on what they observe and can respond swiftly when presented with

information. Novice nurses are beginners and lack the situational experience that allows for intuitive decision-making. Experts develop through years of experience and by actively engaging in increasingly complex problems (Persky & Robinson, 2017). Participants agreed that the ability to make intuitive decisions is beneficial when time is of the essence.

The nursing literature reviewed in Chapter II, discusses Kenneth Hammond's Cognitive Continuum Theory (CCT). Hammond's theory explains the reciprocity between the analytical and intuitive systems. Task characteristics are categorized into "analysis-inducing" or "intuition-inducing" arguing that the nature of the task determines the decision-making strategy (Okoli & Watt, 2018). Nurse leaders agree that they must find a balance between analysis and intuition. Each method has its strengths and weaknesses, and the decision-making process depends on the nature of the situation. Based on the assumptions of the theory, the requirements of the task, as perceived by the individual performing the task, determine whether the individual will approach the task analytically or intuitively (Custers, 2013). In other words, problem solving is rarely fully intuitive or fully analytical. Often times, intuitive decision-making involves "knowing without knowing how," (Okoli & Wyatt, 2017). Participant 7 reported, "intuition can be emotionally driven. I think you have to meet that with rationale and make a plan. I think it all has to come together." Participants agreed that their ability to make intuitive decisions served them well in fluid situations when time was a critical factor.

Participants found it difficult to define intuition but described as a "feeling" or a "driving force" that lets them know when something is right or wrong and allows them to expeditiously navigate the course of action. Intuition often carries a negative connotation

because it provokes a physical and/or emotional response and is thought to be illogical (Hallo & Nguyen, 2021). Participant 11 stated, “It is a very visceral response. It’s like your whole body just stops. For that moment, when my intuition is kicking in, it has my full attention.” Participants in the study admitted to utilizing their intuition in their daily decision-making process. Though unable to pinpoint exactly where intuition comes from, participants consistently cited lived experiences and mental muscle memory as sources to draw from. Participant 11 went on to say, “Whether it’s pulling on a memory or pulling on an experience in the past or it is pulling on data that your brain can’t even access at that time, it’s telling you to listen.” While intuitive decision-making can be valuable, it can also be easily influenced by emotions and biases. Previous experiences that give leaders the confidence to make intuitive decisions, can also be a hindrance and lead to errors in judgement.

The theoretical framework used to guide this study was Dr. Patricia Benner’s Novice to Expert model. She acknowledged that a nurse’s practice and decision-making capability progressively improved with experience. Benner acknowledged five levels of nursing practice including: (a) novice, (b) advanced beginner, (c) competent, (d) proficient, and (e) expert (Butts & Rich, 2018). Nurse leaders have a progression through the stages from novice to expert. In the novice stage, nurses can follow clearly defined processes (Persky & Robinson, 2017). This is also the case for new nurse leaders. Participant 1, the youngest participant in this study, verified this by stating, “In a clinical decision, I am very confident. I am more 50/50 when it comes to administrative decisions.” As a nurse leader with less than five years of experience, she is often unsure of herself and reported, “I have been shot down multiple times,” when questioned about

the utilization of intuition in her daily decision-making. Conversely, nurses in the expert phase can make timely intuitive decisions (Persky & Robinson, 2017). The participants in this study with more than 10 years of experience reported trusting their intuition often. Participant 3 stated, "I trust myself more than I trust other people. I don't view that as hubris or pride. I view that as confidence." He went on to say, "It's confidence built on experience." As nurses become experts, knowledge becomes conditional. This conditional knowledge allows nurse leaders to retrieve needed information selectively based on the circumstances (Persky & Robinson, 2017). Participants who rely on their intuition consider unconventional approaches to problem-solving and offer their teams creative solutions.

Benner described nursing as holistic and relationship dependent and therefore could not be adequately described with words (Butts & Rich, 2018). Participants described their intuition in a similar manner and the literature review for this study supports intuition as a *gut feeling* or a *sixth sense*. That initial inclination is the result of both personal and environmental factors (Hallo & Nguyen, 2012). Relying on intuition allows nurse leaders to make effective decisions even when they may not fully comprehend the analysis behind their intuition. Arguably, intuition is an outcome rather than a process and nurse leaders struggle to justify their decisions. The findings from this study correlate with the literature in that intuition is pattern recognition. Participants referred to intuition as *mental muscle memory* and a *gut feeling* that is powerful. Participants who had extensive nursing and leadership experience reported that they were willing to trust their intuition even when information was limited. Nurse leaders in this study trusted themselves and their ability to make intuitive decisions in crisis situations.

Participants also reported that they were willing to share their intuition with others as an explanation for why they are choosing a particular path. When discussing how nurse leaders convinced others to follow their intuition, Participant 4 stated, “You have to had shown yourself as a proven leader and that your values are in the right place and the reason that you are choosing or not choosing a particular path.” Participant 8 expanded stating, “My staff will trust my intuition, but I need to explain the ‘why’ behind it.” Nursing leaders agreed that it was crucial to have trusting relationships with their team prior to the crisis. Participant 10 stated, “I don’t think people are actively trusting me in that situation. I feel like that is built over time and people see me in my actions.”

Limitations

The study revealed multiple limitations. One limitation was that the study was restricted to nurses who had obtained at least a BSN in nursing and were/are in a supervisory position as indicated by the organizational hierarchy of the institution. This limitation may not generalize nurses who have obtained an ADN or those who have supervisory experience that is not recognized by their organizations’ hierarchy. Nurses who have experience with organizations such as the American Red Cross often step into leadership roles that are not recognized as supervisory roles. Another limitation to the study was that all 11 participants identified as White or Caucasian. According to an article published by the American Association of Colleges of Nursing (2022), the population of registered nurses in 2020 was primarily (80.6%) White/Caucasian. Less than 20% of registered nurses were from minority backgrounds. The research participants were also predominantly female. Within the study results eight (73%) participants

identified as female, and three (27%) participants identified as male. However, in 2020 men accounted for only 9.4% of the registered nurse workforce (AACN, 2022).

The method in which the researcher recruited participants was also identified as a potential limitation. Questionnaires were not used in this study. Responses were limited to online demographic surveys and interviews conducted via Zoom®. Nurses who did not currently have a professional relationship with the researcher or were not referred to the researcher by another participant were not included. Additionally, it is assumed that participants responses were truthful and accurate. To promote honesty, the researcher engaged with the participants and established a good rapport with each of them prior to the interviews.

Implications for Nursing Practice

The findings from this study show that intuition is widely regarded by nurse leaders when making decisions. However, the research indicates that much of the leadership world has been focused on rational analytical thinking. Therefore, the recommendation from this research focuses on recognizing intuition as a valid form of knowing.

Intuitive decision-making is incorporated into nursing practice on a daily basis but is rarely recognized by senior management and educational institutions. The findings call for a change in nursing practice, specifically nursing leadership. Based on the findings of the study, the recommendation would be for nurse leaders to consider the reliability of their intuition when making decisions. Intuition incorporates learning and experience. Nurses know when they are making sound decisions and they know when things are not

quite right. Experienced nurse leaders should be empowered to utilize their intuition, especially in uncertain circumstances when there is little time for logic and analysis.

The answer is not to move away from analytical decision-making all together but to find a balance between logic and intuition. Intuition often provokes recommendations for analytical thinking in the form of feelings and intentions, and that analytical thinking confirms them and transforms them into actions and beliefs (Hallo & Nguyen, 2021). Nurse leaders can develop their intuitive ability as they are repeatedly exposed to information. They are aware of the impacts of their decisions and utilize both logic and intuition to make the best decision with all available information.

Recommendations for Future Research

To put it simply, further research is needed on the use of intuition in the decision-making process by nurse leaders, both in nursing practice and in crisis situations. Intuitive decision-making was found among clinical nursing practice but how it is utilized in nursing leadership is unknown. Additionally, this research should be replicated to include a more diverse sample and verify the study's validity. Further, the findings of this research suggest a gap in knowledge regarding the use of intuition in crisis situations by nurse leaders. The use of intuition within the nursing profession needs further investigation, both empirically and theoretically.

Conclusions

Intuition is our natural ability to know something without any evidence or validation. It is often described as a *gut feeling* and is a phenomenon that we rely on in our daily lives both personally and professionally. The result of years of experience, intuition is more than an uninformed feeling and has a proper role in the decision-making

process (Miller, 2018). The outcomes of this study reinforce Brenner's (1982) Novice to Expert Model regarding the ability for nurses to gain knowledge and proficiency through experience. Nursing leaders who utilize their intuition, do so based on pattern recognition and with little to no information processing. Intuitive individuals are able to quickly integrate multiple reasons into their decision-making process (Okoli & Wyatt, 2018). The study found the prevalence of intuitive decision-making among nurse leaders in crisis situations. The next step is to further investigate the use of intuition among nursing leaders and take measures to ensure that it is recognized as a valid form of knowing.

APPENDIX A – Interview Questions

To focus on the perspectives of nurse leaders an interpretative phenomenological approach was chosen. The following two research questions were identified for this study:

1. What is the lived experience and meaning of being a nurse leader in a crisis situation?
2. What effect has intuition had on nurse leaders decision-making process and the outcome of the situation?

To provide the opportunity for in-depth interviews, the following open-ended questions will be used to guide the conversation and explore the lived experiences of nurse leaders in crisis situations.

- How would you define leadership?
- Are leadership skills something that you are "born with" or are they acquired?
- Does your leadership style vary based on the situation?
- How would you define intuition?
- What are your experiences using intuition in daily decision-making?
- How often do you rely on your intuition when making decisions?
- What effects do your decisions have on your colleagues?
- Tell me about decisions that you have made and their results or unintended consequences.
- How would you define "crisis" or a crisis situation?
- What does it mean to you to be in a leadership position in a time of crisis?
- How did you prepare for your role in crisis management?

Each will be explored by the interviewer and prompts such as “Could you explain…” and “Tell me more about…” will be provided when necessary.

APPENDIX B – IRB Approval Letter

Office *of*
Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

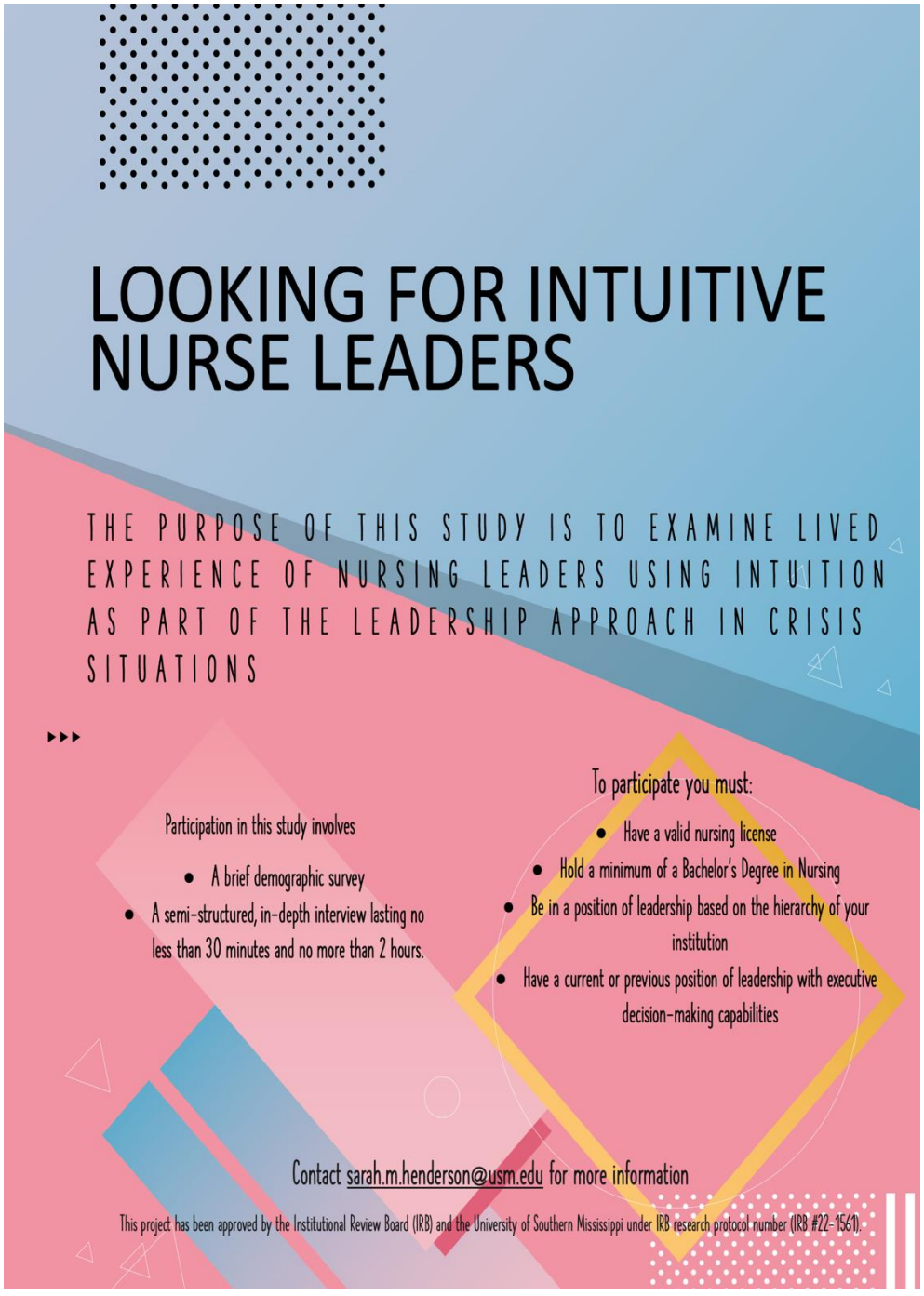
The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident submission on InfoEd IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER:	22-1561
PROJECT TITLE:	Chaos is Not Rational: Nursing Leadership and Intuition in Disaster Preparedness and Response
SCHOOL/PROGRAM	Systems Leadership & Health Outcome
RESEARCHERS:	PI: Sarah Henderson Investigators: Henderson, Sarah M~Jordan, Marti~
IRB COMMITTEE ACTION:	Approved
CATEGORY:	Expedited Category
PERIOD OF APPROVAL:	08-Dec-2022 to 07-Dec-2023

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

APPENDIX C - Recruitment Flyer



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