YOUNG ADULT NURSE WORK-RELATED WELL-BEING, CONTEMPORARY PRACTICE WORLDVIEW, RESILIENCE, AND CO-WORKER SUPPORT DURING THE COVID-19 PANDEMIC

by

Chloé Olivia Rose Littzen

Copyright © Chloé Olivia Rose Littzen 2021

A Dissertation Submitted to the Faculty of the COLLEGE OF NURSING
In Partial Fulfillment of the Requirements For the Degree of DOCTOR OF PHILOSOPHY
In the Graduate College THE UNIVERSITY OF ARIZONA

2021
THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

As members of the Dissertation Committee, we certify that we have read the dissertation prepared by Chloé Olivia Rose Littzen, titled Young Adult Nurse Work-Related Well-Being, Contemporary Practice Worldview, Resilience, and Co-Worker Support During the COVID-19 Pandemic and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

Pamela G. Reed

Date: May 12, 2021

Pamela G. Reed, PhD, RN, FAAN

Jessica Rainbow, PhD, RN

Date: May 12, 2021

Cindy Rishel, PhD, RN, OCN, NEA-BC

Date: May 12, 2021

Final approval and acceptance of this dissertation is contingent upon the candidate’s submission of the final copies of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

Pamela G. Reed

Date: May 12, 2021

Pamela G. Reed, PhD, RN, FAAN
Dissertation Committee Chair
College of Nursing
ACKNOWLEDGMENTS

One of the greatest lessons from my doctoral work is that through collective action we are stronger than we are alone. As such, I would not have been able to accomplish my doctoral work without the unwavering support of the amazing humans in my life. I would like to begin by extending my deepest gratitude to Dr. Pamela Reed who exemplifies what it means to be a nurse, an educator, a scholar, a mentor, an advocate, a colleague, and a friend. I am forever grateful to have had the opportunity to be your advisee, and I hope to carry the lessons you have gifted me to my future students. Thank you for being who you are, and promoting such a safe and welcoming space to learn and develop knowledge as the individual I am. To my committee, Dr. Cindy Rishel and Dr. Jessica Rainbow, thank you for your kindness and critical eyes throughout my doctoral education. Both of you were such a source of strength and support throughout my doctoral work.

To Brittany Honer, Dr. Jessica Dillard-Wright, the Nursology Theory Collective, and the Philosoraptors, thank you for your endless cheerleading, laughs, support, and learning moments. You all have enriched my life in so many ways, and I look forward to co-creating with all of you in the future. To my family, especially my mother and father, thank you for supporting me unconditionally to be the human that I aspired to be – even it didn’t quite make sense all the time. To my husband, Dr. Robert Brown, thank you for your endless encouragement and support throughout my doctoral education and beyond. Whether it was making me a coffee, or having philosophical discussions over dinner, you always went above and beyond to support my success and well-being. There is no one else I would have wanted to travel through my doctoral education with, thank you for being such a big part of this journey.
DEDICATION

To all the nurses who lost their lives due to the COVID-19 pandemic.
TABLE OF CONTENTS – Continued

Sampling and Setting ........................................................................................................... 52
Procedure .............................................................................................................................. 52
Data Collection ..................................................................................................................... 55
Quantitative Measures........................................................................................................ 55
The Nursing Practice Worldviews Scale (N-WVS Scale) ................................................. 56
Generational Differences in Practice Worldviews Questionnaire ..................................... 57
The Hospital Nurses’ Perceived Co-worker Support Scale (NWB-Scale) ......................... 58
The Connor-Davidson Resilience Scale (CD-RISC-10) ................................................... 58
Well-being Index (WBI) ...................................................................................................... 59
Sociodemographic and Occupational Factors .................................................................... 61
Qualitative Measures.......................................................................................................... 61
Semi-Structured Interview Tool ......................................................................................... 61
Data Analysis ....................................................................................................................... 63
Quantitative Analysis ......................................................................................................... 63
Qualitative Analysis ........................................................................................................... 63
Mixed Methods Integration and Analysis ......................................................................... 64
Rigor and Trustworthiness ................................................................................................. 65
Rigor .................................................................................................................................. 65
Trustworthiness .................................................................................................................. 66
Data Management ............................................................................................................... 67
Privacy and Confidentiality ................................................................................................. 67
Summary .............................................................................................................................. 69

CHAPTER 4: RESULTS ....................................................................................................... 70
Sample Characteristics ......................................................................................................... 70
Missing Data ......................................................................................................................... 75
Psychometrics ..................................................................................................................... 76
Tests of Normality ............................................................................................................... 77
Research Questions .............................................................................................................. 78
Research Aim 1 .................................................................................................................... 78
Research Aim 2 .................................................................................................................... 82
Additional Analysis ............................................................................................................ 96
Mixed Methods Metainferences ......................................................................................... 99
Summary .............................................................................................................................. 103

CHAPTER 5: DISCUSSION ............................................................................................... 104
Introduction .......................................................................................................................... 104
Young Adult Nurse Work-related Well-being .................................................................... 106
Contemporary Practice Worldviews .................................................................................. 108
Generational Differences in Practice Worldviews .............................................................. 111
Co-worker Social Support ................................................................................................. 113
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>114</td>
</tr>
<tr>
<td>Updated Theoretical Framework</td>
<td>114</td>
</tr>
<tr>
<td>Implications</td>
<td>117</td>
</tr>
<tr>
<td>Research</td>
<td>117</td>
</tr>
<tr>
<td>Education</td>
<td>118</td>
</tr>
<tr>
<td>Practice</td>
<td>118</td>
</tr>
<tr>
<td>Policy</td>
<td>118</td>
</tr>
<tr>
<td>Strengths and Limitations</td>
<td>119</td>
</tr>
<tr>
<td>Conclusion</td>
<td>120</td>
</tr>
</tbody>
</table>

APPENDIX A: THE UNIVERSITY OF ARIZONA INSTITUTIONAL REVIEW BOARD DETERMINATION LETTER, STUDY DISCLOSURE, AND PARTICIPANT CONSENT FORM ................................................................. 121

APPENDIX B: INSTRUMENTS FOR DATA COLLECTION ......................................................... 129

REFERENCES .............................................................................................................. 145
LIST OF FIGURES

Figure 1  Model Diagram of the Theoretical Framework of Young Adult Nurse Work-related Well-being .................................................................30

Figure 2  Flow of Information during State of the Science Literature Review Stage........34

Figure 3  Procedural Diagram of the Research Design Flow .............................................51

Figure 4  Variable and Instrument Matching for Quantitative Data Collection.................62

Figure 5  Model Diagram of the Updated Theoretical Framework of Young Adult Nurse Work-related Well-being .................................................................116
LIST OF TABLES

Table 1  Tenets of the Philosophy of Nursing Science and Practice: Intermodernism ......15
Table 2  Sociodemographic Factors and Young Adult Nurse Work-related Well-being.....26
Table 3  Occupational Factors and Young Adult Nurse Work-related Well-being ..........28
Table 4  Frequencies and Percentages for Participants Socio- and Occupational Demographics .................................................................71
Table 5  Descriptive Statistics for Included Scales ........................................................76
Table 6  Frequencies and Percentages for Young Adult Nurse Work-related Well-being .80
Table 7  Bivariate Correlations Significantly Related to Young Adult Nurse Work-related Well-being .........................................................81
Table 8  Regression of Variables Resilience, Magnet® Designation, Perceived Similarities in Practice Worldviews with Co-workers of a Different Age, and COVID-19 on Young Adult Nurse Work-related Well-being .........................................................82
Table 9  Codes and Salient Quotes for the Category, “The Moral Dimensions of Young Adult Nurse Work-related Well-being.” .................................................89
Table 10 Regression of Variables Contemporary Practice Worldview, Perceived Similarities in Practice Worldviews with Co-workers of a Different Age, Managers Practice Worldviews, and COVID-19 on Young Adult Nurse Work-related Well-being ...........................................................................98
Table 11 Bivariate Correlations Significantly Related to Contemporary Practice Worldviews ................................................................................99
Table 12 Joint Display for Mixed Methods Metainferences ...........................................101
ABSTRACT

**Purpose:** The purpose of this mixed-methods study was to describe and examine the type and significance of factors significantly related to young adult nurse work-related well-being.

**Background:** Nurse well-being is an important factor related to organizational and patient safety concerns in practice. Young adult nurses have the lowest work-related well-being, highest turnover intentions, and lowest overall job satisfaction across practicing nurses.

**Research Design:** A convergent mixed methods design.

**Methods:** A purposive sample of 110 young adult nurses completed a 72-item online survey. A subgroup of 15 young adult nurses were randomly selected to complete a semi-structured interview. Data were merged for mixed methods integration and analysis to provide a comprehensive understanding of young adult nurse work-related well-being.

**Results:** Sixty-seven percent had suboptimal work-related well-being. Initial regression analysis revealed that resilience, Magnet® designation, perceived similarities in practice worldviews with co-workers of a different age, and COVID-19 explained 38% of the variance in young adult nurse work-related well-being. Regression analysis with resilience removed resulted in nurses’ contemporary practice worldview, co-workers’ practice worldviews of different age, managers’ practice worldviews, and COVID-19 explained 31% of the variance in young adult nurse well-being. Content analysis supported three categories, 1) the contemporary practice worldview, 2) the moral dimensions, and 3) facilitators and inhibitors. Mixed methods metainferences generated potential explanations about young adult nurse work-related well-being beyond that possible through either quantitative or qualitative methods alone.
**Implications:** Young adult nurses experience significant levels of work-related distress that place them at heightened risk for burnout, fatigue, patient care errors, and intent to leave in the next 24 months. The moral dimension of nursing is especially relevant to young adult nurse work-related well-being, as are the nurse’s contemporary practice worldview and perceived similarities with co-workers’ and managers’ practice worldviews.
CHAPTER 1: INTRODUCTION AND PURPOSE

Statement of the Problem

Nurse well-being is an important factor related to organizational concerns such as nurse turnover and patient safety concerns such as medication errors (Brunetto et al., 2013; Melnyk et al., 2018). Research on nurse well-being has primarily drawn from the generalization that all nurses have equitable factors impacting their work-related well-being, despite findings supporting the likelihood that these factors may differ across certain groups of nurses. In particular, work-related well-being is influenced by sociodemographic characteristics such as age or generational membership (Brunetto et al., 2013; Stevanin et al., 2018). Of today’s practicing nurses, millennial nurses, also referred to as young adult nurses, have been reported to have the greatest suboptimal well-being in comparison to any other developmental cohort of nurses (Stevanin et al., 2018). One factor that may be relevant to a developmental cohort in professional nursing is the nurse’s philosophical view of contemporary nursing practice, and its congruence with the views of others within their work setting. Thus, while work-related well-being has been studied in reference to various work conditions, this study examines their practice worldview in addition to other relevant factors that may impact the work-related well-being of young adult nurses. The purpose of this study was to describe and examine factors potentially related to young adult nurse work-related well-being.

Background and Significance

Young adult nurses, defined as currently practicing nurses between the ages of 18-30, suffer from greater suboptimal work-related well-being more often than nurses from other developmental cohorts (Brunetto et al., 2012; Stevanin et al., 2018). Similarly, young adult
nurses have the highest rates of turnover intention, with one-third expected to leave their current job within two years, and two-thirds within five years (Dols et al., 2019), as well as the lowest overall job satisfaction (Smith, 2013; Wieck et al., 2010; Wilson et al., 2008). Adding to this concern is an aging patient population and the fact that 1 million of the currently practicing 3.9 million nurses in the United States (US) are greater than 50 years of age and reaching retirement (Haddad & Toney-Butler, 2020). Together, these concerns compound the current nursing shortage in the practice environment, while downstream inhibiting the development of future nurse educators and scientists. Young adult nurses will inevitably shape the practice environment in the future, and similarly, become the educators and scientists of our discipline. Given these concerns, it is relevant to focus research on young adult nurses in the practice setting. Research is needed to study certain unexamined but potentially relevant factors impacting their work-related well-being, in order to develop appropriate strategies to help maintain and enhance their well-being, and ultimately the future of the nursing workforce.

**Philosophical Perspective on Nursing Science**

Philosophy has been claimed to be the beginning and the end of all knowledge (Reed, 2018b). Our philosophical perspectives thus shape who we are and how we experience the world, from birth to death. Philosophical perspectives are composed of our individual views about ontology and epistemology, along with our values and life experience (Reed, 2018b). The author’s philosophical perspective guiding this inquiry has been primarily influenced by the epistemological perspective of intermodernism (Reed, 1995, 2006, 2019), and experiences as a young adult millennial female registered nurse in the practice environment. The following
paragraphs will describe the author’s epistemological and ontological perspectives, along with influential individual values and life experiences.

**Epistemology**

*Epistemology* is defined as the nature of knowledge and truth and focuses on what is considered justified knowledge (Stanford Encyclopedia of Philosophy, 2020). *Intermodernism*, initially labeled as neomodernism, is a contemporary epistemological nursing perspective that promotes a pluralistic approach to knowledge development (Reed, 1995, 2006). Situated among modern and postmodern perspectives of science, intermodernism embraces the middle way among traditional, and some would claim unorthodox, ways of thinking (Reed, 2018a, 2019). This middle way becomes the bridge where knowledge development occurs among extremes, facilitating the recognition of patterns in the universe through scientific construction.

Intermodernism asserts 11 tenets, denoted by the acronym *intermodern*. Most notable is the ninth tenet, *epistemology*, where intermodernism claims the practice environment as both a source and a repository of knowledge (Reed, 2018a). This inclusive claim facilitates a collaborative approach to knowledge building, bringing together nursing as a discipline and as a professional practice, enhancing the theoretical developments of the discipline (Reed, 2019). Table 1 provides a summary of the key tenets and description of the philosophical perspective of Intermodernism (Reed, 2018a), particularly as applied to practicing nurses.
<table>
<thead>
<tr>
<th>Tenet</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inbetweenness</strong></td>
<td>Nurses work in-between modernism and postmodernism, between extremes and contradictions, and outside of traditional methods. Thinking can be radical and eccentric without being revolutionary or trivial.</td>
</tr>
<tr>
<td><strong>Nursing</strong></td>
<td>Nursing is both a practice and a scientific body of knowledge. Defined ontologically as “inherent processes of well-being within and among human systems” (Reed, 1997); these processes can be external, intrapersonal, and internal.</td>
</tr>
<tr>
<td><strong>Truth</strong></td>
<td>Nurses define truth by the coordination of multiple theoretical ideas focused on addressing a similar problem. Local truths and external. Corrective paradigms are utilized in determining what is emancipating, good, healthful, or of value in nursing.</td>
</tr>
<tr>
<td><strong>Empiricism</strong></td>
<td>Nurses include both objective and subjective data, while valuing the perspectives of patients and their families as right knowledge. Both human and non-human sources of information are used for knowledge development.</td>
</tr>
<tr>
<td><strong>Reality</strong></td>
<td>Nurses are both practical and innovative. Reality emerges through the nurse’s theories, interactions, and actions. They acknowledge the existence of underlying patterns in the universe.</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td>Nursing practice and science are both systematic and messy.</td>
</tr>
<tr>
<td><strong>Openness</strong></td>
<td>Nurses are open to critique, self-correction, and change with ongoing reflection for knowledge development. Aligns with the self-organizing nature of human systems in process with their environment.</td>
</tr>
<tr>
<td><strong>Discovery</strong></td>
<td>Nurses use abductive reasoning to construct their understanding of nursing practice and science.</td>
</tr>
<tr>
<td><strong>Epistemology</strong></td>
<td>Nurses, and the practice of nursing, is both a source and a repository of knowledge development.</td>
</tr>
<tr>
<td><strong>Romanticism</strong></td>
<td>Nurses value both epistemic (cognitive, logic) and non-epistemic (social, cultural, emotional, spiritual) aspects to life, as human beings are too complex to understand by observation based on objective data.</td>
</tr>
<tr>
<td><strong>Nightingale</strong></td>
<td>Nurses strive to operate from their unique disciplinary perspective, build upon historical nursing knowledge, and rise above limits from other disciplinary practitioners who marginalize nursing knowledge and the process of nursing.</td>
</tr>
</tbody>
</table>
Ontology

Ontology, often referred to interchangeably as metaphysics, is defined as the nature of being according to the substantive focus in a discipline (Reed, 2018b). In the scientific discipline of nursing, ontology refers to the nature of human beings, knowledge, health, change, the environment, nursing practice (Fawcett, 1993; Reed, 2018b) and some claim the role of the nurse (Parse, 1987; Terry, 2018). As they are accepted today, ontological perspectives in nursing are based upon a synthesis of nursing and non-nursing scholars perspectives (Newman et al., 1991; Newman et al., 2008; Parse, 1987, 2015; Pepper, 1942; Reese & Overton, 1970), also referred to as philosophical worldviews by Fawcett (1993). The three customarily prescribed worldviews consist of the reaction, reciprocal interaction, and simultaneous action (Fawcett, 1993). Based upon the author’s epistemological perspective of intermodernism, the ontological perspective maintained is pluralistic with blending among the reciprocal interaction and simultaneous action worldview. In this blended worldview, humans are both a part of their environment and unitary in process, change is both probable and unpredictable while being influenced by multiple factors, and scientific endeavors focus on empirical concerns, processes of becoming, and pattern recognition. Congruent with this pluralistic worldview, the author also identifies with the contextual-developmental worldview of life-span developmentalists (Overton & Reese, 1973; Reese & Overton, 1970). In this worldview, human beings are influenced in part by their sociohistorical context, where there is no ideal form, and what we see is dependent upon when and where we look at it (Overton & Reese, 1973; Pepper, 1942; Reese & Overton, 1970).
Values and Life Experiences

As a white-cis-hetero-woman, settler-colonizer, Anglo-Canadian who grew up within a large Franco-Canadian family, the author spent the first 11 years of her life outside of the US. During this time, the author was diagnosed with a chronic health condition, which influenced her decision to go into nursing, and eventually specialize in pediatrics. As a new graduate, and later a novice young adult millennial nurse, the author practiced within the acute care environment and ultimately experienced diminished well-being and burnout. This experience inspired the author to assist young adult nurses to understand and advocate for their well-being, as well as work towards the development of strategies to prevent negative consequences of suboptimal well-being in the workplace.

Theoretical Framework

The theoretical framework for this inquiry is informed by key identified concepts from the nursing literature related to nurse well-being, the epistemological nursing perspective of intermodernism, and life span development metatheory. These concepts include young adult nurse work-related well-being, contemporary practice worldview, generational differences in practice worldviews, perceived co-worker social support, and resilience. The following paragraph will describe the purpose and rationale for the theoretical framework. Subsequent paragraphs will then define each concept, their relationships, and the rationale for their significance. Relevant sociodemographic and occupational factors will also be described. Figure 1 depicts a model of the theoretical framework.

Research has revealed significant differences among the work-related well-being for different developmental cohorts of nurses in practice (Brunetto et al., 2012; Lavoie-Tremblay et
al., 2008; Santos & Cox, 2000; Stevanin et al., 2018). Theory-informed research is needed to examine the work-related well-being of individual developmental cohorts of nurses to develop strategies and prevent negative consequences of and for nurses work-related well-being. Young adult nurses, compared to other developmental cohorts of nurses, reportedly have the greatest suboptimal work-related well-being (Stevanin et al., 2018). Therefore, the purpose of this theoretical framework is to identify and define factors, namely generational differences in philosophical worldviews, perceived co-worker social support, resilience, and relevant sociodemographic and occupational factors proposed to be related to the young adult nurses work-related well-being.

Nursing as a discipline studies many processes of human well-being. In this study, work-related well-being is the particular well-being process of focus. As a concept, well-being is influenced by multiple factors, and thus no single measurement can capture its essence (Seligman, 2012). This notion is supported by life span development metatheory which purports that individual development, or ontogenesis, is influenced by what is referred to as contextualism as paradigm. Contextualism as paradigm refers to three influences that impact an individual’s development: normative age-graded, normative history-graded, and non-normative influences (Baltes, 1987). Individual development, and subsequently well-being, is ultimately impacted by the dynamic interaction among these influences over the lifespan. Comparably, the epistemological perspective of intermodernism purports that well-being as a process may occur externally through actions and interactions, intrapersonally, or internally such as through psychosocial or biological processes (Reed, 2018a). These internal, external, and intrapersonal
processes of well-being can be seen as analogous to the contextual influences outlined by life
span development metatheory.

In this theoretical framework, work-related well-being is the dependent (or outcome)
variable, as influenced by these three processes of well-being. Work-related well-being is
defined here in reference to level of emotional distress and meaning experienced at work. The
internal influence on well-being is represented by the young adult nurse’s contemporary practice
worldview (specifically the degree to which the young nurse holds a contemporary practice
perspective of nursing practice and the perceived difference between young nurse and co-worker
practice worldview); the external concept is perceived co-worker social support; and the
intrapersonal concept is resilience.

**Young Adult Nurse Work-related Well-being**

*Young adult nurse work-related well-being*, the primary concept of this framework, is
defined as a positive emotional and experiential state (e.g., low level or absence of distress) in a
work context for the young adult nurse. Well-being was conceptualized based upon relevant
literature on nurse well-being, including the hospital nurses’ well-being at work scale (Päätalo &
Kyngäs, 2016), the epistemological perspective of intermodernism, and life span development
metatheory (Baltes, 1987). The well-being of nurses has been supported in research as an
important correlate for both patient and system-based outcomes (Brunetto et al., 2013; Melnyk et
al., 2018).

**Contemporary Practice Worldview**

For this theoretical framework, the *contemporary practice worldview* refers to the general
perceptions and beliefs about nursing practice held by the young adult nurse. Historically, in the
discipline of nursing, philosophical worldviews about nursing have been described as the values
and beliefs on the nature of human beings, knowledge, health, change, the environment, and
nursing practice (Reed, 2018b). Moreover, three philosophical worldviews have been generally
accepted in nursing: the reaction worldview, the reciprocal interaction worldview, and the
simultaneous action worldview (Fawcett, 1993). These views are based on a synthesis of
worldviews from scholars within nursing, including Parse (Parse, 1987, 2015) and Newman
(Newman et al., 1991; Newman et al., 2008), as well as scholars outside of nursing (Pepper,
1942; Reese & Overton, 1970).

In a critical inquiry of philosophical perspectives underlying nursing research on acute
coronary syndrome, Terry (2018) identified a significant overlap among the philosophical
worldviews of nurse researchers, specifically with the simultaneous action and reciprocal
interaction worldview. Terry argued for consideration of a more comprehensive philosophical
perspective in nursing to address this gap, such as intermodernism (Reed, 1995, 2018a). Echoing
Terry’s argument, Fitzpatrick, Reed, Smith, Smith, and Roy (2019) purported that a more global
view of nursing as a discipline exists based upon nursing knowledge from clinical practice,
education, and research. Together, they proposed a disciplinary perspective for nursing,
including the foci of unitary human-environment-health processes and healing relationships
(Fitzpatrick et al., 2019). This disciplinary view along with Reed’s (2019) philosophy of nursing
science and practice were the conceptual bases for formulating the contemporary practice
worldview and its measure in this study.

While not previously defined or measured, the degree to which a young adult nurse
endorses a contemporary practice worldview may have a relevant role in their work-related well-
being. Specifically, it can be hypothesized that the greater the endorsement of a contemporary practice worldview a young adult nurse has, the greater their work-related well-being may be. The rationale for this hypothesis is based upon the aspect that the contemporary practice worldview may support the young adult’s identity formation internally, as well as externally as a “group of belonging” (Fadjukoff, 2007; Kroger, 2007) within the discipline of nursing. Identity formation has been considered one of the major developmental challenges that young adults’ must face (Erikson, 1968). Moreover, alignment with a contemporary practice worldview may infer that a young adult nurse may have a more stable commitment to the discipline of nursing, and see themselves as an important member of the healthcare team. According to McAdams and Cox (2010), the young adult is in a stage of development which their self-concept must be patterned into a whole that provides life with meaning and purpose, while simultaneously situating themselves within a culturally specific psychosocial niche (p. 170). A young adult nurse who endorses a contemporary view of nursing practice may find meaning and purpose within the discipline and nursing, and simultaneously find social-cultural identity or belonging, ultimately enhancing their work-related well-being.

**Generational Differences in Practice Worldviews**

*Generational differences in practice worldviews* are defined as the characteristic variations between distinct cohorts who are separated by an era or date of birth, which in turn marks certain sociocultural, environmental, and historical events that occur across the lifespan, and may influence an individual’s philosophical worldview about oneself and one’s work. For this theoretical framework, the philosophical worldview of interest is the contemporary disciplinary view of the practice of nursing. Generational differences in nurses have been
measured empirically since the early 2000s. Santo and Cox (2000) were among the first to examine the role of generational differences in nursing, revealing their relationship to occupational adjustment and workplace stress. Different generations of practicing nurses have since been found as having variable perceptions on their unit-based climates, specialties, work ethic, methods of practice such as the use of nursing theory, nursing values including ideals and visions, occupational stress, burnout, and well-being (Crowther & Kemp, 2009; Farag et al., 2009; Jobe, 2014; Lavoie-Tremblay et al., 2014; Palese et al., 2006; Stevanin et al., 2018). Many of these findings may be relevant to understanding how nurses perceive the practice environment, but there is a gap in understanding if these perspectives operate from nursing’s disciplinary perspective.

In 2011, Welcher explored how values, beliefs, and attitudes of four generations of practicing nurses working alongside one another resulted in conflict. Findings revealed that orientation to change, a specific component of philosophical worldviews in nursing, was found to be a consistent cause of conflicts among nurses (Welcher, 2011). Future research has been recommended to build an understanding of variations in perception to change in practicing nurses across generations (Welcher, 2011). Aside the concept of change, the remaining components of philosophical worldviews about nursing have previously not been examined. An examination of all the components of philosophical worldviews about nursing may be beneficial to understanding how nurses perceive nursing, and similarly, may reveal how deviations in those perceptions impact nurse work-related well-being and ultimately organizational and patient outcomes.
Perceived Co-worker Social Support

*Perceived co-worker social support* is defined as the perception that one has the companionship needed from co-workers within the work environment. From the moment that novice nurses enter into practice, their knowledge development is dependent on the support they receive from their colleagues; therefore making co-worker support integral to the success of all nurses, and ultimately their work-related well-being. This notion is supported by Patricia Benner’s (1982) theory from novice to expert, and Marlene Kramer’s (1974) postgraduation nurse socialization theory. In Benner’s theory, practice-based knowledge is gained through what is taught to the novice by other nurses. This practice-based knowledge is unique, meaning that, it cannot be gained without situational experience (Benner, 1982). Similarly, in Kramer’s theory, socialization, which is the process where a nurse learns how to perform various roles adequately, is claimed as integral to the postgraduate nurse’s success in nursing. Kramer notes the role of socialization agents which includes from most to least importance: nurse’s aides, orderlies, licensed vocational nurses, physicians, and head nurses (Kramer, 1972, p. 164); not mentioned in Kramer’s theory is the role of the nurse co-worker in the socialization process. Historical influences may have since impacted, or changed, the interactions of each of these socialization agents. For example, the model of education nursing uses today does not resemble the hospital schools of nursing, or the apprenticeship model, where hospital administration and medicine were the sources of approved knowledge (Ashley, 1976).

**Empirical Support**

Previous research supports the role of perceived co-worker social support in both nursing students’ and practicing nurses’ work-related well-being. In 2016, Paatalo and Kyngas reported
that having a “helpful, supportive and respectful work community” (p. 581), was integral in the well-being at work of graduating nursing students’ in Finland. This perception of social support was further exposed to impact the graduating nursing students decision whether to ask for help from experienced nurses and similarly, the awareness if they accepted members of the unit based community (Paatalo & Kyngas, 2016). In aging hospital nurses (nurses aged 45-55 years with at least 10 years of hospital working experience), the core process of their well-being at work was centered around their nurse-to-nurse relationships, as well as patient-to-nurse relationships (Utriainen et al., 2009). Lastly, in the psychometric testing of the hospital nurses’ well-being at work scale, the importance of social relationships with nurses played an integral role in nurses of all ages well-being at work (Pääätalo & Kyngäs, 2016).

**Resilience**

*Resilience* is defined as the capacity to moderate negative experiences and remain optimistic about the future. Commonly accepted by scholars across disciplines to describe a combination of an individual’s abilities and associated characteristics that interact dynamically, resilience allows individuals to bounce back, successfully cope, and function in spite of hardship or substantial stress (Rutter, 1993; Tusaie & Dyer, 2004). While increasingly a focus in the discipline of nursing, the concept of resilience is rooted in research on coping in psychology and aspects of stress in physiology (Tusaie & Dyer, 2004). Connor and Davidson (Connor & Davidson, 2003), the developers of the *Connor-Davidson resilience scale* (CD-RISC), claim that resilience may be a useful measure of an individual’s stress coping ability, and similarly be an important target of anxiety, depression, and stress reactions. Resilience has also been claimed as useful as a qualitative categorical construct, in addition to a quantitative measure of adaptation or
successful experiences (Tusaie & Dyer, 2004). It was thus proposed for this study that resilience may moderate the negative experiences regarding perceived social support from colleagues in the practice setting.

**Empirical Support**

In nursing, resilience is considered a vital trait for nurses to adapt and face their everyday work (Tusaie & Dyer, 2004). Research on resilience in newly licensed nurses indicated that insufficient levels are correlated with intention to leave, turnover, decreased job satisfaction, and negatively impacts patient safety (Concilio et al., 2019). Levels of resilience significantly vary dependent on a nurse’s age, gender, mother’s educational level, working experience, hours of work, perceived social support, and job satisfaction for clinical nurses in Turkey (Oksuz et al., 2019). Concerning nurse well-being, resilience has a significant direct and indirect effects on well-being through burnout, compassion satisfaction, as well as job satisfaction in clinical nurses in South Korea (Kim et al., 2019). According to Gao et al. (2017), general well-being in nurses, which was not clearly defined in their study, is a significant predictor of resilience and mental health for clinical nurses in China. Results also indicated that general well-being may moderate or mediate the relationship between resilience and mental health (Gao et al., 2017). Lastly, Lanzs and Bruk-Lee (2017) showed that low levels of resilience increase the effects of interpersonal conflict on turnover and burnout, and recommend resilience as an important correlate to explore related to the negative effects of social stressors in practicing nurses.

**Sociodemographic and Occupational Factors**

Sociodemographic and occupational factors have been found to influence the well-being of nurses, yet many remain unexamined in young adult nurses. Aside from developmental age,
which has previously been argued for, the sociodemographic factors selected for measurement include chronological age, race/ethnicity, biological sex, marital status, and education level. See Table 2 for definitions and empirical support for the selected sociodemographic factors. For occupational factors, shift type, years of experience, length of time in position, number of jobs as a registered nurse, and hospital accreditation were selected for measurement. See Table 3 for definitions and empirical support for the selected occupational factors.

Sociodemographic factors are a combination of social and demographic characteristics of a group of people, or an individual within a group of people. No studies have been located examining young adult nurses’ well-being and the selected sociodemographic factors. The following table is a summary of the selected sociodemographic factors, their definitions, and empirical support for their measurement.

**Table 2**

*Sociodemographic Factors and Young Adult Nurse Work-related Well-being*

<table>
<thead>
<tr>
<th>Sociodemographic Factor</th>
<th>Definition</th>
<th>Empirical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronological Age</td>
<td>The number of years since birth.</td>
<td>Research in population health is recommended to report younger and older age groups separately due to variations brain development, health disparities, and well-being (&quot;Young Adult Health and Well-Being: A Position Statement of the Society for Adolescent Health and Medicine,&quot; 2017).</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>A sociopolitical and legal construct based on perceived physical differences (e.g., skin color, facial features and hair type), rather than biological differences (Yoo et al., 2018)</td>
<td>Ethnic minorities report more detrimental effects of direct nursing on their physical, emotional, occupational and social well-being (Boateng et al., 2019).</td>
</tr>
</tbody>
</table>
Table 2 - Continued

<table>
<thead>
<tr>
<th>Sociodemographic Factor</th>
<th>Definition</th>
<th>Empirical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sex</td>
<td>An individual’s physical sexual characteristics at birth.</td>
<td>Biological sex as it is socially referred to is a specific predictor of nurse well-being; males have been reported to have lower scores (Oates et al., 2017).</td>
</tr>
<tr>
<td></td>
<td>Also referred to as “sex” or “sex at birth.”</td>
<td></td>
</tr>
<tr>
<td>Gender Identity</td>
<td>An individual’s attitudes, feelings, and behavior’s within a sociocultural context regarding their gender (Vijilbrief, Sharso, &amp; Ghorashi, 2020).</td>
<td>Gender identity has been revealed as a specific predictor of health outcomes and impacts access to care (Pinto et al., 2019). Biological sex and gender identity are not interchangeable as concepts (Vijbrief, Saharso, &amp; Ghorashi, 2020, p. 91). Gender identity has not been examined in nurses, or in relation to young adult nurse work-related well-being.</td>
</tr>
<tr>
<td>Marital Status</td>
<td>An individual’s state of being single, married/living with partner.</td>
<td>Being single has been found to negatively influence burnout and the subjective well-being of nurses (Kim &amp; Yeom, 2018; Qu &amp; Wang, 2015)</td>
</tr>
<tr>
<td>Educational Level</td>
<td>An individual’s level of education measured in number of years.</td>
<td>Lower education levels have been found to negatively influence nurses levels of burnout and subjective well-being (Kim &amp; Yeom, 2018; Qu &amp; Wang, 2015).</td>
</tr>
</tbody>
</table>

Occupational factors are work-related characteristics of a group, or an individual within a group. No studies have been located examining young adult nurses’ well-being and the selected occupational factors. The following table is a summary of the selected occupational factors, their definitions, and empirical support for their measurement.
Lastly, due to the occurrence of the novel coronavirus (COVID-19) pandemic, a factor was included to assess for its potential influence on young adult nurse work-related well-being, as well as other relevant proposed factors in this study. Health care workers, including nurses, have been shown to experience physical and mental fatigue, stress and anxiety, as well as burnout related to COVID-19 (Adams & Walls, 2020; Sasangohar et al., 2020). Moreover, variations in burnout frequency have been found in frontline physicians and nurses in Wuhan, China, compared to those working usual wards during the COVID-19 pandemic (Wu et al., 2020). No studies have been located examining the work-related well-being of any nurses as it relates to COVID-19.

Table 3

Occupational Factors and Young Adult Nurse Work-related Well-being

<table>
<thead>
<tr>
<th>Occupational Factor</th>
<th>Definition</th>
<th>Empirical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift Type</td>
<td>The typical shift, either day or night that a nurse works in their place of employment.</td>
<td>Working night shift negatively impacts job satisfaction, health effects, and psychological well-being in nurses compared to day shift (Ferri et al., 2016; Verma et al., 2018).</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>The number of years an individual has worked in the discipline of nursing.</td>
<td>Less years of experience have been found to negatively influence burnout and subjective well-being (Kim &amp; Yeom, 2018).</td>
</tr>
<tr>
<td>Length of Time in Current Full-Time RN Position</td>
<td>The number of years the individual has worked in their current place of employment.</td>
<td>Length of time in present position is negatively related to nurse well-being (Boer et al., 2017).</td>
</tr>
<tr>
<td>Number of Jobs as a Registered Nurse</td>
<td>The number of jobs an individual has had as a registered nurse.</td>
<td>30% of new nurses leave their first position within 1 year, and 57% leave after 2 years (Bowles &amp; Candela, 2005).</td>
</tr>
</tbody>
</table>
Table 3 - Continued

<table>
<thead>
<tr>
<th>Occupational Factor</th>
<th>Definition</th>
<th>Empirical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnet® Designation</td>
<td>A recognition that a healthcare organization receives focused on nursing excellence and patient outcomes.</td>
<td>Magnet designation has been associated with significant improvements in job satisfaction, intention to leave, and turnover in nurses when compared to non-Magnet hospitals, but there are concerns of methodological rigor (Dariel &amp; Regnaux, 2015).</td>
</tr>
</tbody>
</table>

Relationships among Concepts

The model of the theoretical framework is presented in Figure 1. Within the theoretical framework, there are six sets of relationships. First, a young adult nurse who endorses a contemporary practice worldview in nursing is proposed to be positively associated with young adult nurse work-related well-being. This relationship infers that if a young adult nurse strongly identifies with contemporary beliefs and values about nursing practice, their work-related well-being will be positively influenced. Second, generational differences in practice worldviews are proposed to be negatively associated with young adult nurse work-related well-being. This relationship implies that as generational differences in practice worldviews increase, the work-related well-being of the young adult nurse will be negatively influenced. Third, perceived co-worker social support is proposed to be positively associated with young adult nurse work-related well-being. For the young adult nurse, this relationship implies that if there is a perception that co-workers are supportive companions in the work environment, their well-being will be increased. Fourth, resilience is proposed to function as a moderator between perceived co-worker social support and young adult nurse work-related well-being, such that resilience may moderate (strengthen) the relationship between perceived co-worker social support and
young adult nurse work-related well-being. Also, the two variables together may have a greater influence on well-being than does either one separately. This relationship implies that the level of resilience in the young adult nurse will impact the perception of perceived co-worker social support at work, and ultimately their work-related well-being. Lastly, sociodemographic and occupational factors are depicted in the model with a +/- to indicate that variations in the relationship to young adult nurse work-related well-being may be found as it relates to specific factors.

**Figure 1**

*Model Diagram of the Theoretical Framework of Young Adult Nurse Work-related Well-being*
**Research Aims and Questions**

The aims of this study are based upon the key identified concepts related to young adult nurse work-related well-being as presented above. The following research aims and questions were addressed:

**Research Aim 1**

Examine the type and significance of factors related to young adult nurse work-related well-being.

1. What is the relationship between level of endorsement of a contemporary practice worldview and young adult nurse work-related well-being?
2. What is the relationship between young adult nurse work-related well-being and level of perceived differences between young adult nurse and co-worker practice worldviews?
3. What is the relationship between perceived co-worker social support and young adult nurse work-related well-being?
4. What is the relationship between resilience and young adult nurse work-related well-being?
5. Does resilience moderate the relationship between perceived co-worker social support and young adult nurse work-related well-being?
6. What sociodemographic (chronological age, race/ethnicity, biological sex) and occupational (shift type, years of experience, length of time in position, COVID-19) factors significantly relate to young adult nurse work-related well-being?
7. What significant factors together best explain young adult nurse work-related well-being?
**Research Aim 2**

Describe practice worldviews and their relationship to young adult nurse work-related well-being as identified by currently practicing young adult nurses.

1. How do young adult nurses describe their views about human health, nursing practice, and nursing knowledge?
2. How do young adult nurses describe the relationship to their practice worldview and their work-related well-being?
3. What differences, if any, in practice worldviews do practicing young adult nurses perceive among other generations of nurses? What, if any, influences do these differences have on their work-related well-being?
4. How do young adult nurses describe their work-related well-being and factors that influence it?

**Summary**

This chapter presented the need for research examining the work-related well-being of young adult nurses. To initiate this investigation, a theoretical framework with the purpose to identify and describe the relationship among contemporary practice worldviews, generational differences in practice worldviews, perceived co-worker social support, and resilience with young adult nurse work-related well-being was proposed. The following chapter will provide a review of related literature in on the work-related well-being of young adult nurses.
CHAPTER 2: LITERATURE REVIEW

The purpose of this literature review was to examine the state of the science of young adult nurse work-related well-being, and the relationship among the proposed factors with young adult nurse work-related well-being. No articles were found that aligned with the purpose of the literature review. The following paragraph provides a summary of the completed literature review.

A literature search was completed from January – February 2020 via the electronic databases the Cumulative Index to Nursing and Allied Health Literature (CINAHL) Plus and PsycINFO. CINAHL was selected as it is considered a top nursing database containing a wide range of topics, and provides access to research instruments, nursing dissertations, and standards of practice, (EBSO, 2020). PsycINFO was selected in addition to CINAHL as it is considered the most comprehensive library of social and behavioral sciences (APA, 2020). The key search terms “young adult” AND “nurse” AND “well-being” OR “wellbeing” OR “well being” were used. Inclusion criteria for articles consisted of, 1) the English language, 2) full text availability, and 3) peer reviewed. No time restrictions on articles were selected in order to provide a comprehensive overview. Exclusion criteria consisted of any articles focused on the population of emerging adults, as this study is on young adult nurses in the practice environment. The searched terms generated 223 articles from CINAHL (n=91) and PsycINFO (n=132). Of the 223 articles, 23 were duplicates and removed. The author screened each abstract, introduction, and purpose statement independently to determine the relevancy of the articles with the goal of the literature search and research questions. Some 200 articles were identified as related literature.
Figure 2 below describes the flow of the information during the state of the science literature review. A related literature review will thus be provided in the following paragraphs.

**Figure 2**

*Flow of Information during State of the Science Literature Review Stage*

Related Literature Review

No articles were found identifying or describing the work-related well-being of young adult nurses or the proposed factors related to young adult nurse work-related well-being. Two-hundred related articles were located on the related topic of nurse well-being in other contexts. The following paragraphs will provide a critical review of related articles, including how they relate to the focus of the study, and the proposed theoretical framework.

Related Literature on Nurse Well-being

As a concept, well-being has been defined and applied in diverse, and as some have claimed, inconsistent ways, limiting knowledge and theory development in nursing (Wang & Shieh, 2001). In an integrative review of the concept of well-being, Kiefer (2008) purports that there is a lack of clarity for the definition of well-being in the nursing literature. Examining the concept of nurse well-being reveals a similar state, including multiple subtypes of nurse well-being with variable definitions. For example, across 37 studies, eight different subtypes of nurse well-being, including subjective well-being, psychological well-being, spiritual well-being, emotional well-being, social well-being, physical well-being, generalized well-being, and less frequently, well-being at work were found. The most commonly cited subtype of nurse well-being was subjective well-being. Among 10 studies on nurses subjective well-being, nine different definitions were described. Moreover, within these definitions, the word well-being was also applied, adding confusion to the concepts epistemic state (Altun et al., 2014). Most consistent in the literature was the definition of nurse well-being at work. For example, Alves, Neves, Coleta, and Oliveira (2012) defined nurse well-being at work as “a psychological state with positive affective links towards work and also towards organization.” Comparably, Paatalo
and Kyngas (2016), defined nurse well-being at work “as a positive viewpoint and experience in a work context.”

Other definitions of nurse well-being subtypes indicate a similar focus to nurse well-being at work, without overtly referring to nurse well-being at work conceptually. For example, in the study by Brunneto et al. (2013) in examining the importance of supervisor-nurse relationships, teamwork, affective commitment, and retention of North American nurses, nurses’ psychological well-being in the workplace was defined as “employees’ attitudes and feelings about their work context” based upon the scholarly work of Diener (2000). A similar definition was used by Utriainen, Kyngas, and Nikkila (2011) where nurse well-being at work “refers to an individual’s positive view, conditions, and emotions, which are manifested in the work context.”

Review of these definitions utilized in research on nurse well-being, and nurse well-being at work, reveals that there is an emphasis on the well-being of nurses in the work context, even if not explicitly stated. Additionally, a gap is revealed in the conceptual basis of nurse well-being at work, or as referred to in the theoretical framework, work-related well-being. Research is needed to examine and describe what the work-related well-being is to nurses in practice, in order to refine the concept in its current state. Furthermore, Kiefer (2008) argues that there is a need to examine how individuals define and conceptualize their well-being, including what their major facilitators and barriers are based upon the individual’s perspective.

**Impact of Nurses’ Work-related Well-being**

The work-related well-being of nurses in practice negatively contributes to organizational and patient safety outcomes (Brunetto et al., 2013; Melnyk et al., 2018). In a quantitative cross-sectional descriptive study examining nurses (n=1790) mental and physical health in the
workplace, after adjusting for age, gender, race/ethnicity, marital status, education, hours of work, and shift, Melnyk et al. (2018) found that half of the nurses reported suboptimal physical and mental health, and in comparison to nurses with better health, had a $26\% - 71\%$ higher likelihood of a medical error. The investigators concluded that the well-being of nurses and healthcare providers should be a top priority for organizational systems to optimize clinician health; enhance patient care; and decrease the likelihood of preventable, costly, and sometimes fatal medical errors.

Similarly, in a quantitative cross-sectional descriptive study of 730 North American nurses, Brunetto et al. (2013) demonstrated that almost half of the participants’ commitment to their hospital and intentions to leave could be explained through supervisor-nurse relationships, teamwork, and well-being. Furthermore, a generational effect where Baby Boomer nurses (i.e., those born between 1943-1960), perceived higher levels of well-being, commitment, and lower intentions to leave were found (Brunetto et al., 2013). Comparably, Generation Y nurses (i.e., those born between 1976 and 2000), also referred to as millennials, had the lowest levels of commitment and the highest turnover intentions. This finding is similar to previous research in Australian nurses (n=900), where Generation Y’s attachment to work impacted their intention to continue working the most (Shacklock & Brunetto, 2012).

**Generational Differences and Nurses’ Work-related Well-being**

While Melnyk et al. (2018) controlled for age, the studies by Brunetto et al., (2013) and Shacklock and Brunetto (2012) emphasize that variations in well-being, and both organizational and patient safety outcomes in nurses, are impacted by generational membership. However, overemphasizing generational membership has been argued to aid in generational stereotypes
both in and outside of nursing, and similarly, and may ignore essential individual age-related concerns important to human development (Christensen et al., 2018; Parry & Urwin, 2011). In a recent systematic review, it was recommended as conflicting findings and methodological limitations are found across studies on generational differences in nursing, research should be undertaken to examine if generational differences are relevant at all, or, if they simply reflect age-related concerns and/or familiarity with the nursing role (Stevanin et al., 2018). Future research is also needed to examine if variations in the work-related well-being of nurses are primarily impacted by generational differences, or if it is truly a factor of age-related differences across the lifespan. This is not to say that generational differences do not exist, but, that a developmental perspective may explain some of the differences found in the work-related well-being of nurses.

In a mixed-methods systematic review on generational characteristics of nurses, Stevanin, et al., (2018), demonstrated that levels of work engagement and factors affecting work-place well-being and satisfaction vary across generational cohorts. Specifically, Baby Boomer and Generation X nurses exhibit different degrees of work engagement and factors impacting their well-being, job satisfaction, and retention in comparison to Generation Y nurses. Stevanin et al., (2018) recommended future research on the nursing workforce to consider if these variations in well-being, job satisfaction, and retention are related to generational membership, or if they simply reflect age. Brunetto et al., (2013) found similar generational effects, where Generation Y nurses had lower levels of well-being and commitment and higher turnover intentions compared to Baby Boomer nurses.
Results from research by Shacklock and Brunetto (2012), in a quantitative cross-sectional study of 900 private sector hospital nurses in Australia, identified six significant variables in hospital nurses intention to continue working across generations: work-family conflict, perception of autonomy, attachment to work, importance of working to the individual, supervisor-subordinate relationships and interpersonal relationships at work. Using the meaning of working theoretical framework, significant differences were found across generational cohorts of nurses. Specifically, in Generation Y nurses the variable attachment to work explained greater than 40% of the variance to their intention to continue working. Shacklock and Brunetto (2012) argue that generation Y nurses may not be as committed to their place of work, and instead, seek work wherever the greatest meaning can be found. Alternatively, Shacklock and Brunetto (2012) offer that Generation Y nurses may not be in a stage across the lifespan where they have found balance in their life, underpinning a need for future research in this age group.

**Young Adult Nurse Work-related Well-being**

As previously described, young adult nurses, whether described as millennials or Generation Y, suffer from the greatest suboptimal work-related well-being compared to any other developmental cohort (Stevanin et al., 2018). As no literature was located describing factors specifically impacting the work-related well-being of young adult nurses, the following related literature provides an overview for support of the proposed factors within the theoretical framework.

**Generational Differences in Practice Worldviews**

While no literature was located on generational differences in practice worldviews, generational differences among nurses in the practice environment have been found to influence
nurses perceptions of their nurse colleagues of different generations (Santos & Cox, 2000), unit based climates (Farag et al., 2009), specialties (Crowther & Kemp, 2009), and how they understand and react to the work environment (Lavoie-Tremblay et al., 2014). Values, ideals, and visions also vary across young and older nursing staff (Palese et al., 2006). Specifically, younger nurses have claimed to have differing perspectives regarding concepts about nursing practice in comparison to their older colleagues (Palese et al., 2006). These younger nurses also assert the existence of conflicting methods among younger and older nurses in the practice environment, such as the use of nursing theory (Palese et al., 2006).

Similarly, in a phenomenological study, Welcher (2011) examined generational conflict between four generations of nurses (N=20) in Georgia, along with their values, beliefs and attitudes, revealed that conflict exists specifically among older and younger generations of practicing nurses. Welcher (2011) reported that the most cited source of conflict among older and younger generational cohorts was related to their perceptions of the concept of change, a specific concept found within nursing philosophical worldviews. In comparison to younger nurses, older nurses were perceived as resistant to change by the younger nurses, which resulted in a challenging work environment (Welcher, 2011). The younger nurses perceived that the older nurses held different perceptions and beliefs about nursing practice, and as a result, tried to find a “middle ground” working with older nurses in order to accomplish goals (Welcher, 2011, p. 88). The author concludes by recommending that future research is needed to explore variations on the perceptions of change among currently practicing nurses of different generations. Examining philosophical worldviews on nursing, which has been described as the contemporary practice worldview, would appropriately fill this gap on the concept of change. Additionally, insight on
other potentially influential concepts contained within philosophical worldviews may be found to influence the practice environment, and ultimately, young adult nurse work-related well-being.

Lastly, in comparing the theoretical model of aging nurses’ well-being at work, Paatalo and Kyngas (2016) exposed different perceptions, orientations, and values toward nursing work among nurses of different age groups (Utriainen et al., 2011). Utriainen et al., (2011) demonstrated an important divergence where graduating nursing students do not emphasize the significance of patients or patient care in their well-being at work. Paatalo and Kyngas (2016), purport that this divergence may imply that as nurses’ age in the career, factors impacting their well-being shift to a more inner focus for nursing work, versus more externally focused in the younger years. Previous knowledge developed in lifespan development research supports this notion, where younger adults have a tendency to be more extrinsically motivated with their goals in comparison to older generations (Mackenzie et al., 2018; Riediger et al., 2005), further emphasizing the need to examine work-related well-being in nurses from a perspective of development.

**Perceived Co-worker Social Support**

Practicing nurses perceived co-worker social support influences several work-related outcomes including the following: intentions to continue working (Lavoie-Tremblay et al., 2008; Shacklock & Brunetto, 2012); turnover (Hurtado et al., 2018), job satisfaction (McCloskey, 1989), organizational commitment (Brunetto et al., 2013), and well-being at work (Paatalo & Kyngas, 2016; Päätaalo & Kyngäs, 2016; Utriainen et al., 2015; Utriainen et al., 2009; Utriainen & Kyngäs, 2011; Utriainen et al., 2011), with new and younger nurses being more negatively
impacted by a lack of social support compared to any other cohort of practicing nurses (Kramer, 1974; Lavoie-Tremblay et al., 2002; Lavoie-Tremblay et al., 2008).

In a quantitative cross-sectional descriptive study using Karasek’s *job strain* model (Karasek & Theorell, 1990) and Siegrist’s *effort-reward imbalance* model (Siegrist, 1996), Lavoie-Tremblay et al., (2002) examined the relationship between the psychosocial work environment and the intention to quit nursing among a new generations of nurses (N=1,002) in Quebec, Canada. With an average age of 22.6 years (SD=1.28), and an age range of 20–25, the authors found that 61.5% of new nurses intended to quit their job for another job in nursing, with a lack of social support as a key contributing factor influencing their intention to quit. Comparably, in a prospective observational study of early career nurses (N=39) from medical surgical and intensive care units in a critical access community hospital in Oregon examining the relationship among social support and turnover, nurses who stayed in their positions claimed they had more peers for safe patient handling advice, compared to those who quit (6.76 peers vs. 3.83 peers, P<0.01) (Hurtado et al., 2018). For each peer who was nominated as a source of safe patient handling, the risk of quitting decreased by 15% (Hurtado et al., 2018). The authors argued that nurses within the first two years of employment who report fewer peer support resources for safe patient handling have a greater risk of quitting, in comparison to nurses who had a greater amount of supportive peers, suggesting an association between lower co-worker support for safe patient handling and a higher risk of turnover (Hurtado et al., 2018). The average age of the sample was 40.9 years, and no additional details were provided related to age groups, or the balancing of groups. The authors recommend for research to be completed examining the role of peer safety support in reducing turnover among new hires. Due to the lack of clarity
regarding the sociodemographic characteristics, research is also be needed to develop knowledge on the role of age and other sociodemographic factors with social support. Additionally, there was no mention of the effects of social support on the work-related well-being of nurses across both studies, potentially influencing the occurrence of turnover in early career, or young adult nurses.

Similarly, in a 16 month study of 150 midwestern US new graduate nurses’ job satisfaction, organizational commitment, work motivation, and intention to stay, McCloskey (1989) found that both autonomy and social integration are important concepts for practicing nurses. Social integration was defined as “the degree or level of supportive relationships with coworkers” (p. 141). McCloskey argued that when new graduate nurses have both high autonomy and social integration, they have increased job satisfaction, organizational commitment, work motivation, and intentions to stay. In addition, McCloskey found that reports of level of autonomy and/or social integration differed depending on the unit in which participants worked. For example, participants who worked in non-intensive care units reported the least autonomy and/or social integration, and thereby the lowest job satisfaction. Comparably, when both autonomy and social integration were reported as low, new graduate nurses employed at one year had significantly lower job satisfaction, even when controlling for other variables. McCloskey (1989) argued that if one of these factors, whether autonomy or social integration, were high and the other was low, the negative effects of the lower than average factor were ultimately tempered by the above average factor. Similarly to Hurtado et al. (2018), McCloskey argues in favor of examining the relationship for new graduate nurses between social context and intentions to stay. Inconsistent between the studies was the age of the
participants. The average participant age in McCloskey’s study was 27, with more than half (59%) between 20 and 23. In contrast, the average participant age of Hurtado et al.’s study was 40.9. McCloskey recommends future research on the relationship with unit characteristics to autonomy and social integrations, but no mention is made regarding the influence age, development, or work-related well-being.

Having nurse colleagues who were dependable, collegial, open, and respectful of each other were factors that promoted the well-being at work for Finnish young graduating nurses (N=16) in the qualitative descriptive research by Paatalo and Kyngas (2016). This study found that nurse to nurse interactions impacted the young adult graduating nursing students’ ability to ask for help, and feel accepted in their place of work. Similarly, in a quantitative cross-sectional design guided by social exchange theory by Brunetto et al., (2013) results indicated that for nurses (N=730) located in the US, workplace relationships and perceptions of well-being explained almost half of nurses’ commitment to their hospitals and turnover intentions; workplace relationships included both supervisor to subordinate and colleague to colleague relationships.

Results of a grounded theory study with 21 nurses at a University hospital in Northern Finland, Utriainen, Kyngas, and Nikkila (2009), indicated that the core process for the well-being of ageing hospital nurses (i.e., nurses 45-55 years old), was reciprocal nurse colleague relationships and patient interactions. Unique to this study, Utriainen, Kyngas, and Nikkila operated under the assumption that every age group of nurses has differing perspectives on work and work ethics. Reciprocal nurse colleague relationships were underpinned as “taking account of another human being in a two-way process” that included communality, sharing, and allowing
particularity and emotional freedom (Utriainen, Kyngas, & Nikkila, 2009, p. 152). Reciprocal nurse colleague relationships were also described as related to the concept of social capital, which refers to the connection among individuals, underpinning the importance of social relationships to nurse well-being. Similar findings were found in the psychometric testing of the hospital nurses well-being at work scale, Paatalo and Kyngas (2016), where 67-items and 12 sections were developed through surveying hospital nurses (N=233) in Finland. Of the 67-items, 29-items and five sections related to social relationships among nurses in the work environment, revealing that the work community to the individual nurse is significant for their well-being at work. These factors included communication and assistance among nurses, nurses cooperation, togetherness, freedom to express feelings, and informal social intercourse.

Lastly, findings from a quantitative cross-sectional descriptive study of early career registered nurses (N=747) indicated that that friend and coworker support had a significant positive direct effect on self-efficacy, self-efficacy had a significant direct effect on resilience, and co-worker social support did not directly influence resilience (Wang et al., 2018). Previous research by Taylor and Reyes (2012) similarly showed that higher levels of self-efficacy contributes to a sense of accomplishment, ultimately assisting in maintenance of psychological well-being. Further research is needed to examine the role of perceived co-worker social support with resilience and work-related well-being.

Resilience

As a concept, resilience has been identified in the discipline of nursing as an important factor to enhancing the sustainability of the health care workforce and overall quality of patient care (Epstein & Krasner, 2013; Manomenidis et al., 2019). As a protective mechanism, resilience
significantly influenced decreased nurse turnover (McAllister & McKinnon, 2009), post-traumatic stress disorder (PTSD) (Mealer et al., 2012), emotional exhaustion (Manzano & Calvo, 2012), supportive coping behaviors (Dolan et al., 2012), burnout (Arrogante & Aparicio-Zaldivar, 2017), quality of life (Glass, 2009), and improved health (Gillespie et al., 2007), while also increasing nurses’ positive attitudes towards patients and overall perceived quality of care (Williams et al., 2016). Moreover, Melnyk, Hrabe, and Szalacha (2013) argue that resilience is an important factor in buffering the negative effects of workplace stress by promoting a positive view of self in the work environment for new graduate nurses.

As an interaction variable, resilience has been found to influence the relationship among interpersonal conflict and job outcomes in nurses. Low levels of resilience increased the magnitude of the indirect effects of interpersonal conflict on job outcomes, as found in a quantitative cross-sectional descriptive study examining the relative effects of interpersonal conflict and workload on job outcomes (i.e., turnover intentions, burnout, injuries), and the moderating effects of resilience in 97 US nurses (Lanz & Bruk-Lee, 2017). Comparably, in nurses who had high levels of resilience, this effect was weakened; these nurses also appeared more controlled over emotional experiences.

In describing interpersonal conflict, Lanz and Bruk Lee (2017) specifically emphasized nurse-to-nurse social interactions. The authors argue that the social context of nurses is an important stressor to consider impacting nurse well-being, and future research should examine the social environment of nurses at work. Additionally, while Lanz and Bruk Lee (2017) also argue that further research is needed to assess if resilience affects some nurses more than others, they did not find any significant differences in age, tenure, conflict, workload, or resilience
among the participant groups. In their study, the average age of participants was 46.5 years (SD=12.7) and tenure was 10.7 years (SD=9.6), creating concern for the sociodemographic variation of the sample being representative of different age groups. Moreover, there is also a concern for uneven groups due to the absence of description, highlighting the need for further research to examine the role of sociodemographic variables, such as developmental age, with resilience as an interaction variable.

In an integrative review of resilience in nurses, Hart, Brannan, and De Chesnay (2014) similarly argue that inconsistencies are found in the sociodemographic characteristics that impact nurses’ resilience, underpinning a need for more rigorous research as it relates to the role of sociodemographic variables and resilience. Comparably, in a quantitative cross-sectional descriptive study examining the impact of individual characteristics, external factors, and coping strategies on nurses (N=1,012) resilience in Greece, variations were found in nurses who were better educated, had lower anxiety, and utilized mental preparation strategies prior to their shift (Manomenidis et al., 2019). A significant difference was also found whereby nurses who were less educated and worked on an internal medicine ward had lower levels of resilience. Related to the role of mental preparation strategies in nurses, the authors highlighted the strategy of social interactions with colleagues having a positive association with resilience.

Previous research by Cameron and Brownie (2010), supports the finding that colleague support can enhance nurses’ resilience, but neither study discusses the role of resilience as a potential protective factor for a perceived lack of social support from co-workers in the workplace. Additionally, in the study by Manomenidis, Panangopoulou, and Montgomery (2019), no rationale for the age categories, which were preselected at <39, 40–49, and >50, were
provided. A lack of appropriate age selection based on development may mask significant effects related to developmental age and resilience. Further research is needed to examine the role of resilience as potential influence the effects of suboptimal perceived co-worker social support, with relevant developmental age groupings.

Emotional labor, which is defined as “the management of feeling to create a publicly observable facial and bodily display” (Hochschild, 2003, p.7), is a concept that has similarly been linked to the social interactions of nurses and resilience. For example, emotional labor contributes to emotional dissonance, eventually resulting in stress and burnout (Delgado et al., 2017). In an integrative literature review of nurses’ resilience and emotional labor of nursing work, Delgado et al. (2017) identified resilience as a protective process against the negative effects of emotional labor. In nursing, Theodosius (2008) identified three subtypes of emotional labor including: therapeutic, collegial, and instrumental labor. Collegial emotional labor, which specifically refers to the interpersonal relationships and interactions among nurses and their colleagues where information exchange assists the development of effective nursing care, was found to be less represented in the literature compared to other described subtypes. This further emphasizes a gap in the understanding of the relationship among perceived co-worker social support, which is similar to the concepts of social interactions or interpersonal conflict in the literature, and resilience with young adult nurse work-related well-being.

**Summary**

This related literature review reveals that knowledge on young adult nurse work-related well-being remains underdeveloped, along with the understanding of factors impacting young adult nurse work-related well-being. In addition, there is an emphasis on the role of generational
membership for the nursing workforce, but there is a lack of a theory-based approach to this emphasis where a developmental lens should be used to better understand practicing nurses. From a conceptual standpoint, research is needed to further describe and develop a foundational understanding of the concept of young adult nurse work-related well-being. To aid in organizational and patient safety concerns, research is needed to examine young adult nurses in the practice environment from a developmental lens to elucidate their perspectives on their work-related well-being, along with the proposed factors of contemporary practice worldviews, generational differences in practice worldviews, perceived co-worker social support, and resilience. Using a developmental lens, the knowledge developed from this research would help sustain and enhance the work-related well-being of young adult nurses for years to come, and ultimately the nursing workforce, versus becoming irrelevant as a generational cohort disappears.
CHAPTER 3: METHODS

This chapter will describe the methodological approach for this study. For review, the purpose of this study was to describe and examine potentially related factors to young adult nurse work-related well-being. The following paragraphs will provide rationale for the selected research design, sampling and setting, data collection including instruments, data analysis, data management, rigor and trustworthiness, and privacy and confidentiality.

Research Design

A mixed methods design was selected to address the described aims of the study. A convergent mixed methods design was used, which is a type of design where qualitative and quantitative data are collected and analyzed independently, followed with integration through merging of both the data sets for mixed methods analysis (Crewell & Clark, 2018). In this study, quantitative data was collected via an online cross-sectional survey to examine the type and significance of factors (contemporary practice worldview, generational differences in practice worldviews, perceived co-worker social support, and resilience) with young adult nurse work-related well-being. Qualitative data was simultaneously and independently collected via semi-structured interviews to describe young adult nurse’s description of the aforementioned factors, emphasizing their contemporary practice worldview, generational differences in practice worldviews, and work-related well-being. The rationale for collecting both quantitative and qualitative data was to match, compare, and expand on the results with the intent to develop a more comprehensive understanding of young adult nurse work-related well-being in comparison to what would be obtained with one method alone. A diagram of the study is presented in Figure 3.
Sample

The study sample of interest were currently practicing young adult nurses in the acute care environment. Predefined inclusion criteria consisted of a bachelor’s prepared registered nurse, age 30 or under during data collection, currently practicing full time (.9 FTE/36 hours minimum) in an acute care environment, with at least six months of experience, in the US, with access to a computer with a microphone and internet access. Acute care environment for the
purpose of this study was defined by any type of hospital. Exclusion criteria consisted of nurses without a bachelor’s degree, age 31 and up, not practicing in the acute care environment (e.g., home health, public health, or outpatient settings), less than six months experience, working less than full time, and lack of access to a computer with a microphone and internet access. Nurses without a BSN were excluded in order to develop a beginning understanding young adult nurse work-related well-being without the interaction of variable education levels. Nurses with less than six months of experience were excluded to avoid an interaction with the new graduate nurse orientation experience.

**Sampling and Setting**

Prior to the commencement of recruitment, institutional review board approval (IRB) and human subjects’ acknowledgements were completed and approved (Appendix A). Based on an a-priori power analysis in G*Power 3.1 (Faul et al., 2009; Faul et al., 2007) with an effect size of 0.2 based upon a previous study on generational differences in nurses (Jobe, 2014), an alpha of 0.5, and a power of 0.8, a sample size of 65 young adult nurses was needed to reach statistical significance for the quantitative portion of the study. Using the social media platform Facebook (2020), 110 young adult nurses were purposively recruited in order to reach the target population and sample size in an accessible method (Trochim et al., 2016). Snowball sampling was also used where participants invited colleagues who met inclusion criteria.

**Procedure**

For recruitment of participants for health research purposes, Whitaker, Stevelink, and Fear (2017) argues that Facebook should be considered as a recruitment tool in comparison to traditional recruitment methods (i.e., print, radio, television, & email) as it reduces overall costs,
results in shorter recruitment periods, has better representation, and is an appropriate means in selection of young and hard to reach demographics. Facebook does have an over representation of young white women (Whitaker et al., 2017), but this bias favors the target sample of young adults, and an accurate representation of the nursing workforce which in 2018, 88.2% of registered nurses were female and 74.5% were white (Deloitte, 2020). As it relates to nurses who use social media, according to Kung and Sanghee (2014), 94% of registered nurses (n=410) from 43 US states use social media, and of those, 90% use social networking sites such as Facebook.

Recruitment began with quantitative data collection on Facebook for completion of the online survey via the secure online survey software QualtricsXM (2019). A total of 113 publicly accessible nursing specific Facebook groups were identified; 39 of these groups required permission to post and 12 did not allow for recruitment posts. The author posted the IRB approved recruitment message within 101 Facebook groups from July to August 2020. One to three recruitment posts were made in each group depending upon engagement. All participants were required to declare that they met all inclusion criteria on the first survey item. If they successfully declared they met the inclusion criteria, the second item introduced the study disclosure. Participants were required to agree to the study disclosure to continue. Those who did not agree to the study disclosure online were unable to participate in the online survey; participants agreed began the survey on item three. After completion of the survey, participants had the option to be entered into a raffle for a 50-dollar gift card. The online survey consists of five questionnaires to be administered in the following order: nursing practice worldviews scale, the hospital nurses’ well-being at work scale, the Connor-Davidson resilience scale, the well-being index, and a sociodemographic and occupational questionnaire. This order of instruments
moves from content requiring the most reflection to more easily addressed content for participants. Please see below for a description of each instrument.

After the adequate number of participants was achieved for quantitative data collection based upon the a-priori power analysis, a random drawing was completed for the 50-dollar gift card based upon the provided email addresses. The winner of the gift card was emailed with an individual link for their prize. An announcement was posted to the Facebook nursing groups indicating additional participants were no longer needed. Additionally, in this message the raffle winner was announced without breaking anonymity along with a thank you to all who participated.

During recruitment for quantitative data collection, random sampling of participants was completed from the quantitative sample based upon participants who selected that they were interested in the online interview on the last item of the survey. Random sampling was completed by assigning numbers to each participant, and randomly selecting a number for interview participation. Participants had the ability to opt-out if they do not want to participate in the semi-structured interview, and if this occurred, another random drawing was completed. Qualitative data collection occurred via semi-structured interviews over Zoom videoconferencing (2019b). All interviews were audio recorded with the permission of participants at interview commencement. Primary and secondary devices were used to decrease the chance of any recording issues. After completion of the interviews, the audio recordings were uploaded into the secure UA Box, and then independently transcribed verbatim by a professional transcriptionist.
Recruitment for qualitative data collection was guided by saturation, meaning that, no new information developed related to the research questions from additional participants (Glaser & Strauss, 1999) with the intent of a maximum number of 15 participants (20% of the quantitative sample). If saturation was not achieved at 15 participants, the investigator planned to randomly sample up to five more participants for further data collection, but saturation was determined at 15. As saturation has been criticized by scholars as a generic marker of quality (O’Reilly & Parker, 2012) and a questionable research strategy (Malterud et al., 2016), expert consultation was used as the study progressed to review the investigators assumptions related to saturation. Due to this, recruitment did not cease until the investigator and expert consults were in agreement that saturation has been achieved. All semi-structured interview participants received a 25-dollar gift card, which was emailed to them after the completion of the interview.

Data Collection

The following paragraphs will describe the selected instruments for both the quantitative and qualitative data collection. Rationales for instrument selection, as well as considerations for validity and reliability will be addressed.

Quantitative Measures

For quantitative data collection, all instruments were compiled into one anonymous comprehensive online survey in the secure online survey software Qualtrics\textsuperscript{XM}. The online survey included items on social and occupational demographics; an investigator developed and pilot tested \textit{Nursing Practice Worldviews Scale} to measure nurses’ contemporary practice worldviews, a \textit{Generational Differences in Practice Worldviews} questionnaire to measure generational differences in practice worldviews; the \textit{Hospital Nurses’ Perceived Co-worker
Support Scale (Päätalo & Kyngäs, 2016) to measure perceived co-worker social support; the 10-item Connor-Davidson Resilience Scale (Campbell-Sills & Stein, 2007) to measure resilience; and the Well-being Index (Dyrbye et al., 2018) to measure young adult nurse work-related well-being. Figure 4 illustrates variable and instrument matching for quantitative data collection. The following paragraphs will provide further details on each of the instruments selected, including reliability and validity.

The Nursing Practice Worldviews Scale (N-WVS Scale)

The Nursing Practice Worldviews Scale (N-WVS Scale) is an investigator developed scale with the purpose to measure the contemporary disciplinary perspective of practicing nurses. Development of the N-WVS Scale began with a thorough review of all sources (i.e., books, journal articles, & dissertations) on philosophical worldviews in nursing from October 2017 to April 2020. Consisting of a total of 17 items, this 4-point Likert scale measures three separate components of the disciplinary perspectives of nursing based upon the scholarly work of (Fitzpatrick et al., 2019; Littzen, Langley, & Grant, 2020; Reed, 2018a; Terry, 2018): human-environment-health processes (n=3), healing relationships (n=5), and nursing practice knowledge (n=10). Scores on the NWV-Scale range from 1 to 4, which is calculated by averaging the responses of all items. A score of ‘4’ indicates alignment with a contemporary practice perspective, comparatively, a score of ‘1’ indicates misalignment with a contemporary practice perspective. See Appendix B for the complete N-WVS Scale.

The instrument was pilot tested prior to the study, for face validity and clarity using three experts in the content and two practicing nurses. Content validity was determined prior to data collection through expert consultation (Carmines & Zeller, 1979). In addition, thorough review
of the literature in developing the items provided support for content validity. Pilot testing was completed following expert consultation in the target population with cognitive interviews. Participants examined the draft survey, verbalize the mental process for answering each item, and identified any confusing items needing refinement including grammar or word choices (Boateng, Neilands, Frongillo, Melgar-Quiñonez, & Young, 2018). After the items were refined, the survey was administered for data collection. Validity and reliability testing of the scale in this study sample was completed prior to analyzing the research questions. This included item-total scale and inter-item analysis, analysis of reliability as estimated by Cronbach’s alpha and preliminary analysis of construct validity by examining the correlations among scores on the study variables.

**Generational Differences in Practice Worldviews Questionnaire**

Based upon relevant literature to the work-related well-being of young adult nurses and generational differences in practice worldviews, a 5-item questionnaire was generated to measure generational differences in practice worldviews as no scale was available for measurement. Items 1 through 3 measured the perception of differences in worldviews between co-workers of a similar age, co-workers of a different age, and manager’s regardless of their age. Item 4 and 5 measured the perceived impact of co-workers’ and managers’ worldviews separately for young adult nurses’ work-related well-being. Items 1 and 2 were on a 5-point Likert scale ranging from ‘0’ representing “this question does not apply to me” to ‘4’ representing “strongly agree.” Items 3 through 5 were on a 4-point Likert scale ranging from ‘1’ for “strongly disagree” to ‘4’ representing “strongly agree.”
The Hospital Nurses’ Perceived Co-worker Support Scale (NWB-Scale)

One subscale of the Hospital Nurses’ Well-being at Work Scale (NWB-Scale; Paatalo & Kyngas, 2016) was used to measure perceived co-worker social support. The subscale called “assistance and support among nurses” consists of nine items rated on a 5-point self-report Likert scale, with ‘5’ representing “very important for my well-being” and ‘1’ representing “not important at all for my well-being” (Paatalo & Kyngas, 2016). Scores on the NWB-Scale range from ‘0’ to ‘4,’ which is calculated by averaging the responses of all items. A score of ‘4’ indicates higher support, whereas a score of ‘0’ indicates the lowest or no support. Cronbach’s alpha for this subscale is 0.914. Cronbach’s alpha coefficients ranged between 0.66 to 0.91, revealing strong internal consistency of the scale (Päätalo & Kyngäs, 2016). As no other scale was found to be an effective measure of perceived co-worker social support in nurses, a modified version of the hospital nurses’ well-being at work scale was selected as the most appropriate option to achieve the aims of the study. Overall, the instrument has been used as a valid and reliable scale to measure nurses’ well-being at work focusing on factors that promote well-being in the hospital setting. Permissions for scale use and modification were granted directly by Dr. Paatalo.

The Connor-Davidson Resilience Scale (CD-RISC-10)

The Connor-Davidson Resilience Scale (CD-RISC-10; Campbell-Sills & Stein, 2007) is a 10-item self-report scale developed to measure resilience due the promising treatment outcomes of resilience with anxiety, depression, and reactions to stress. All items within the scale are on a 5-point range of responses including: not true at all (0); rarely true (1); sometimes true (2); often true (3); and true nearly all of the time (4). Responses are based on how the participant felt over
the last month (Connor & Davidson, 2003). The total score of the scale ranges from 0 to 40, and is calculated by summing all of the item responses, where a higher score indicates greater levels of resilience, and a lower score indicates less resilience or difficulty in bouncing back from adversity. Original testing of the 25-item scale by Connor and Davidson (2003) consisted of five separate groups, indicated supportive internal consistency, test-retest reliability, and convergent and divergent validity.

The CD-RISC-10 was established through reanalysis of the factor structure and construct validity of the original 25-item scale (Campbell-Sills & Stein, 2007). Internal consistency reliability of the 10-item scale with Cronbach’s alpha was .85, indicating good reliability. Exploratory factor analysis revealed that the 25-item scale was not stable across subsamples who were demographically equivalent (Campbell-Sills & Stein, 2007). Alternatively, two factors were recognized as relatively stable, termed hardiness and persistence, resulting in the revised 10-item version of the CD-RISC containing only items related to those factors. Construct validity of the 10-item scale was also supported in a sub-sample of 131 individuals on measures of childhood trauma and psychiatric symptoms. Permissions to use the CD-RISC-10 without modification was approved by Dr. Johnathan Davidson.

**Well-being Index (WBI)**

The Well-being Index (WBI; Dyrbye et al., 2018), is considered a valuable scale in examining the distress and well-being in nurses across a multitude of domains. The WBI is claimed to assist in identifying levels of distress in nurses that may negatively impact patient care and nurse retention. The scale has a total of nine items. Items 1 to 7 measure various
dimensions of distress: depression, anxiety, stress, fatigue, and burnout. Item 8 measures meaning in work, and item 9 measures work-life integration.

The scoring of this instrument was reversed from its standard approach, so as to be conceptually consistent with its title and for clarity in discussing the results and their interpretation in this study. Thus, higher scores indicate higher work-related well-being. The total score on the WBI was calculated by these steps: Responses on items 1 to 7 were completed using a dichotomous scale where the higher score indicates higher well-being/lower distress (1 = no & 2 = yes.) Responses were summed across items 1 to 7 for a subtotal score. Items 8 and 9 were scored separately each on dichotomous response scale where the higher score indicates higher meaning in work and higher work-life integration, respectively. Scores from each of these items, 8 and 9, were added to the summed scores on items 1-7. The total score possible ranges from 2 to 12 where the higher score indicates higher well-being.

The WBI has been validated in multiple independent samples with over 25,800 healthcare professionals and other US workers. The psychometrics of the WBI were originally established in medical students (N=2248) (Dyrbye et al., 2010). Content validity was established through literature review and nominal group experts, including Ad Hoc deans and medical students during construct development. Item content validity index for the overall scale was 0.94 and 0.91, which is considered excellent at greater than 0.78, indicating scale relevance and representativeness. For reliability, Cronbach’s alpha was calculated at 0.72. Permission to use the WBI without modification for this study meets criteria for the academic license agreement as defined by MedEd Web Solutions (MEWS).
Sociodemographic and Occupational Factors

Based upon relevant literature to the work-related well-being of young adult nurses, a total of 12 sociodemographic and occupational items were selected for measurement. Six items were selected for sociodemographic factors: chronological age; race/ethnicity; biological sex; gender identity; marital status; and education level. For occupational factors, seven items were selected: shift type, years of experience, length of time in current position, number of jobs as a registered nurse, Magnet designation, and perceived COVID-19 impact. Lastly, an optional write-in section was placed at the end of the sociodemographic and occupational factors questionnaire section, enabling participants to describe any other factors they deem as important to understanding their work-related well-being.

Qualitative Measures

For qualitative data collection, a previously pilot-tested semi-structured interview tool was used. A semi-structured interview was selected to explore young adult nurses views on the factors that may influence their work-related well-being, while emphasizing the contemporary practice worldview and generational differences in practice worldviews. All interviews were audio recorded, using a primary and secondary device to decrease the chance of any recording issues. After completion of the interviews, the audio recordings were uploaded into the secure UA Box, and then independently transcribed verbatim by a professional transcriptionist.

Semi-Structured Interview Tool

Development and pilot testing of the semi-structured interview tool occurred from January to May 2019. At commencement of the development of the tool, the items selected were generated based upon salient nursing literature on philosophical worldviews in nursing,
generational differences, and nurse well-being. Throughout the pilot study, based upon responses of four young adult nurse participants, selected items were refined, and additional items were included. A total of 17 items were selected for the final version of the semi-structured interview tool at the end of the pilot study. Further refinements to the semi-structured interview tool were made in light of the research aims of the present study. The semi-structured interview was again pilot tested in May 2020 with two young adult nurses with minor grammatical refinements. See Appendix B for the complete semi-structured interview tool.

**Figure 4**

*Variable and Instrument Matching for Quantitative Data Collection*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young Adult Nurse Work-Related Well-Being</td>
<td>Well-Being Index (WBI)</td>
</tr>
<tr>
<td>Contemporary Practice Worldview</td>
<td>The Nursing Practice Worldviews Scale (NWV-Scale)</td>
</tr>
<tr>
<td>Generational Differences in Practice Worldviews</td>
<td>Generational Differences in Practice Worldviews Questionnaire</td>
</tr>
<tr>
<td>Perceived Co-Worker Social Support</td>
<td>Co-Worker Support Subscale (NWB-Scale)</td>
</tr>
<tr>
<td>Resilience X Perceived Co-Worker Social Support</td>
<td>NWB-Scale X CD-RISC-10</td>
</tr>
<tr>
<td>Sociodemographic and Occupational Factors</td>
<td>Sociodemographic and Occupational Factors Questionnaire</td>
</tr>
</tbody>
</table>
Data Analysis

Quantitative Analysis

Quantitative data was extracted from Qualtrics\textsuperscript{XM} and uploaded into IBM SPSS Statistics (IBM, 2020) for the purpose of data analysis. Descriptive statistics (measures of central tendency) were run to analyze responses to the sociodemographic and occupational factor questionnaire to examine the sample distribution, scoring errors, or missing data. Prior to further analysis on the quantitative data, psychometric testing (internal consistency reliability with Cronbach’s alpha) was completed for the instruments. Bivariate correlations were examined, followed by multiple linear regression, using forced entry (Field, 2013), to analyze relationships among the selected variables (contemporary practice worldview, generational differences in practice worldviews, perceived co-worker social support, and resilience) as they relate to young adult nurse work-related well-being, as described in the first research aim. As Pearson’s correlation coefficients were produced with the multiple regression analysis, multicollinearity was examined to determine there were no substantial correlations among the variables (Field, 2013)

Qualitative Analysis

After transcription of the semi-structured interviews, the collected qualitative data was imported into the qualitative analysis software MAXDQA (2020). Using qualitative content analysis (Sandelowski, 2000), the investigator independently read each interview transcript multiple times for data familiarization (Elo & Kyngäs, 2008). Following familiarity with the data, the investigator deductively and inductively coded the data, categorized similar codes, separated codes into subcategories, and identified quotes to support the selected categories and
subcategories (Elo & Kyngäs, 2008). Additionally, the investigators’ advisor audited 20% of the transcripts for code application, to assure effective content analysis and minimize potential investigator bias.

**Mixed Methods Integration and Analysis**

Once both quantitative and qualitative data analysis was completed, mixed methods integration and analysis followed. Integration is defined as the mixing or combining of quantitative and qualitative data results in order to develop a new interpretation, also called mixed methods insights or metainferences (Moseholm et al., 2017). Integration occurred at three levels: 1) matching the quantitative and qualitative data collection instruments based upon the theoretical framework, 2) comparing the findings between the quantitative and qualitative data, and 3) expanding on the quantitative and qualitative data to develop a more comprehensive understanding of young adult nurse work-related well-being. A joint display was developed in MAXDQA, in order to provide a visual display for mixed methods data analysis (Creswell, 2015; Crewell & Clark, 2018). This integration included attention to the study aims, the initial theoretical framework, exiting empirical findings, and the potential for unexpected findings (Miles et al., 2014).

According to Fetters (2020), there are seven steps within a mixed methods analysis, which were followed in this study. These steps included: 1) entering, cleaning, and addressing gaps or deficiencies in data collected, 2) framing the analysis in accordance with the study purpose, 3) describe patterns with a preliminary data analysis, 4) use an organizational structure to summarize initial findings, 5) check for inconsistencies, anomalies, or conflicting findings, 6) organize findings for dissemination, and 7) interpret the findings for write-up (Fetters, 2020, p.
For step 5, issues of fit of the merged data were completed in order to develop metainferences that indicate concordance, expansion, or divergence (Fetters, 2020, p. 191). Convergence, also referred to as confirmation, was decided if the findings reinforced each other and lead to the same interpretation. Expansion was decided if the findings were not exactly the same, but they had areas of overlap that expanded upon each other (Moseholm et al., 2017). Lastly, divergence, was decided when the findings were different, did not overlap, and they conflicted or contradicted each other. If divergence was found, the investigator re-analyzed the collected data to examine for alternative plausible interpretations in order to reconcile differences (Fetters & Molina-Azorin, 2017; Moffatt et al., 2006; Pluye et al., 2009), and if divergence was confirmed it was used as a means to develop questions for future research.

**Rigor and Trustworthiness**

Rigor and trustworthiness are analogous terms used to describe the soundness or quality of quantitative and qualitative research. Quantitative rigor is concerned with validity, reliability, and objectivity (Trochim et al., 2016). Comparably, qualitative trustworthiness is concerned with the investigators ability to persuade readers that the research is believable and worthy of trust, including the criteria of credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). The following paragraphs will describe the efforts to ensure rigor and trustworthiness for this study.

**Rigor**

To ensure quantitative rigor, internal validity, external validity, reliability, and objectivity were addressed. For internal validity, which is the approximate truth about inferences drawn regarding cause and effect or causal relationships (Trochim et al., 2016, p. 209), and external...
validity, which is the extent to which results can be generalized (Kazdin, 2017), strict inclusion criteria adhering to the theory of proximal similarity (Trochim et al., 2016), and random sampling of participants for the qualitative sample were applied. For reliability, or the stability and consistency of a measure (Trochim et al., 2016), internal consistency reliability using Cronbach’s alpha was calculated for all quantitative instruments. Objectivity, or freedom from bias, was minimized when both validity and reliability are established (Sandelowski, 1986), but it was not fully established. According to Longino (1990), as a value based characteristic, objectivity is traditionally ascribed to as an ideal of adhering to factual or other impartial/nonarbitrary criteria, rather than what we believe should happen (Longino, 1990). Longino argues that total objectivity is a fallacy, no matter the paradigm of thought, as values enter into our scientific research through multiple pathways and often fail to account for the social nature of science (p. 81). However, she proposed that accounting for background assumptions and values may actually enhance the objectivity (i.e., minimizing as much bias as possible) in scientific inquiry (Longino, 1990).

**Trustworthiness**

To ensure qualitative rigor, all criteria of trustworthiness were addressed. For credibility, which is the investigator’s representation of the examined multiple realities (Lincoln & Guba, 1985), were addressed through by using pilot-tested questions with all participants, and comparing findings during the mixed methods integration and analysis. Transferability, which is the ability of the study to be transferred to another time or place (Lincoln & Guba, 1985), was addressed through accurate description of the participants, setting, and research procedures in order to assure fittingness (Koch, 2006; Sandelowski, 1986). Dependability, which is concerned
with instability, changes in phenomenon, and design comparison, was assured through an inquiry audit trail to promote accurate reporting (Lincoln & Guba, 1985). Confirmability, which is the described by Lincoln and Guba (1985) as what “exists when an appropriate methodology is employed that maintains an adequate distance between [sic] observer and observed” (p. 300), through the inquiry audit trail and reflexive journaling. Throughout the entirety of the research process, the investigator worked closely with her dissertation chair and committee in order to further promote trustworthiness through peer debriefing. Lastly, reflexivity, or the investigators influence over the research process whether intentional or unintentional, was maintained through reflexive journaling where the investigator concurrently examined her personal involvement, values, beliefs, and experiences as it relates to the research (Jootun et al., 2009).

**Data Management**

All data collected was de-identified and stored in the secure, password protected, university specific cloud software UA Box (also referred to as Box@UA). Only the investigator and the investigator’s committee had access to the UA Box. According to the University of Arizona data classification and handling standards (2020), any data collected is considered confidential and UA Box is a permitted research collaboration tool and online cloud storage. A master list, along with the de-identified data, was kept on file in the UA Box for six years along with any consent materials during and after study completion.

**Privacy and Confidentiality**

Throughout the study, every effort was made to ensure the privacy and confidentiality of participants. At any time if participants wished to be removed for the study, all participant data collected that can be identified was removed and destroyed immediately. If voluntary withdrawal
occurred, the participant was asked to provide rationale if they were comfortable. If participation in the quantitative portion of the study was completed, but the participant did not wish to participate in the qualitative portion, another participant was randomly sampled in their place.

All recruitment was anonymous for quantitative data collection, and the investigator directly email participants securely who were randomly sampled for qualitative data collection. Prior to quantitative data collection, a study disclosure was presented to participants as the second item of the online survey. Participants were not be able to enter into the online survey without agreeing to the study disclosure. Participants who were randomly selected for inclusion in the semi-structured interview were once again presented a study disclosure to validate they agree to their involvement.

As the semi-structured interviews was located over Zoom videoconferencing, special privacy and confidentiality precautions needed to be considered. Zoom videoconferencing is considered a video over internet protocol (VoIP), and has been proposed as an effective research tool increasing researcher and participant satisfaction, rapport building, convenience, decreasing cost and time, allowing reach to previously unreachable participants, and is simple, secure, and user-friendly (Archibald et al., 2019; Lacono et al., 2016; Zoom, 2019a). With any technology there is concern for breach of confidentiality and privacy. In order to mitigate concerns related to VoIP use, the following email instructions were sent out to each participant individually prior to the scheduled interview: Pre-specifed instructions on navigating the Zoom website, including account set up; a unique password encrypted zoom URL; recommendations to set up the interview space in a quiet, private area, where the participant is comfortable with reliable internet
access; and, if desired, the participant could request a test-run with the investigator to decrease the chance of any issues navigating the Zoom website.

At commencement of the interview, the investigator asked permission of the participant to audio record the session. The participant was informed at this time that all data collected was de-identified and stored in a secure password encrypted location. After permissions were granted to record the session, and the participant consented to the interview, the investigator showed the participant her room, including the closed door, in which the investigator is existing in. Once the session is completed, the recording was downloaded to the investigators secure, password encrypted computer, de-identified, and uploaded for transcription into UA Box.

Summary

A convergent mixed methods design was described to achieve the aims of the study with the intent to provide a more comprehensive understanding of young adult nurses work-related well-being. An overview of the study procedures, including the sample, sampling and setting, data collection, instruments, data analysis, data management, rigor and trustworthiness, and privacy and confidentiality was also described. The following chapter will describe the results of the completed study.
CHAPTER 4: RESULTS

This chapter will present the results of the completed mixed methods study. Two aims guided this study: 1) examine the type and significance of factors related to young adult nurse work-related well-being, and 2) describe practice worldviews and their relationship to young adult nurse work-related well-being as identified by currently practicing young adult nurses. The following paragraphs will present the sample characteristics, missingness, psychometrics, tests of normality, results based on the two research questions and additional analyses, and the mixed methods metainferences.

Sample Characteristics

One hundred and ten participants (N=110) completed the anonymous online survey. Fifteen participants were randomly sampled and completed the semi-structured online interview. For the online survey, 281 participants attempted to complete the online survey, but 171 did not meet inclusion criteria. The average age of participants was 26 (14%, n=16) with an age range of 22 to 30 (SD=2.26) and lived in the southwest region of the US (23%, n=25). Participants were predominantly non-Hispanic white or Caucasian (69%, n=76), with a gender identity of woman (88%, n=97), and a biological sex of female (88%, n=97). Fifty percent (n=55) of the sample described themselves as married or living with a significant other. Participants averaged four years of higher education (59%, n=65), and 28% (n=31) were currently enrolled in a degree program.

Nineteen percent (n=21) of the sample worked in adult intensive care, closely followed by labor and delivery (15%, n=16), the emergency room (14%, n=15), and adult medical surgical with telemetry (10%, n=11). Participants nursing colleagues were primarily a “mixture of ages”
(57%, n=63), and their nursing managers were generally “older” than they were (84%, n=93).

Work-related characteristics included the following: 36% (n=39) worked in a Magnet® designated hospital; 55% (n=42) of participants worked night shift or other, with shifts lasting predominantly 12-14 hours (85%, n=94); 18% (n=20) of participants had 1 year of experience, closely followed by 2 years (16%, n=18), and five years of experience (15%, n=16); and 12% (n=13) of participants currently worked another job as a registered nurse. The average number of positions held by participants was ‘1’ (36%, n=40), followed by ‘2’ (28%, n=31), and ‘3’ (18%, n=20); 9% (n=10) of the sample had held 5+ jobs as registered nurse. Table 4 includes the comprehensive results of the sociodemographic and occupational factor questionnaire.

**Table 4**

*Frequencies and Percentages for Participants Socio- and Occupational Demographics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chronological Age</strong></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>23</td>
<td>12 (11%)</td>
</tr>
<tr>
<td>24</td>
<td>11 (10%)</td>
</tr>
<tr>
<td>25</td>
<td>12 (11%)</td>
</tr>
<tr>
<td>26</td>
<td>16 (14%)</td>
</tr>
<tr>
<td>27</td>
<td>13 (12%)</td>
</tr>
<tr>
<td>28</td>
<td>13 (12%)</td>
</tr>
<tr>
<td>29</td>
<td>9 (8%)</td>
</tr>
<tr>
<td>30</td>
<td>10 (9%)</td>
</tr>
<tr>
<td>Missing</td>
<td>12 (11%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>11 (10%)</td>
</tr>
<tr>
<td>Southeast</td>
<td>17 (15%)</td>
</tr>
<tr>
<td>Midwest</td>
<td>22 (20%)</td>
</tr>
<tr>
<td>Southwest</td>
<td>25 (23%)</td>
</tr>
<tr>
<td>West</td>
<td>13 (12%)</td>
</tr>
<tr>
<td>Pacific Northwest</td>
<td>13 (12%)</td>
</tr>
<tr>
<td>Missing</td>
<td>9 (8%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
</tbody>
</table>
Table 4 – Continued

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>African American or Black</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Asian American or Asian</td>
<td>7 (6%)</td>
</tr>
<tr>
<td>Hispanic or Latinx</td>
<td>12 (11%)</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Multiracial</td>
<td>5 (5%)</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Non-Hispanic White or Caucasian</td>
<td>76 (69%)</td>
</tr>
<tr>
<td>Other, not listed</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Gender Identity</strong></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>97 (88%)</td>
</tr>
<tr>
<td>Man</td>
<td>5 (5%)</td>
</tr>
<tr>
<td>Transgender</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Non-Binary</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Genderqueer or gender non-conforming</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Identity not listed</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Prefer not to disclose</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Biological Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>97 (88%)</td>
</tr>
<tr>
<td>Male</td>
<td>5 (5%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>47 (43%)</td>
</tr>
<tr>
<td>Married or living with significant other</td>
<td>55 (50%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Years of Higher Education (e.g., a bachelor’s degree is 4 years)</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2 (2%)</td>
</tr>
<tr>
<td>4</td>
<td>65 (59%)</td>
</tr>
<tr>
<td>5</td>
<td>17 (15%)</td>
</tr>
<tr>
<td>6</td>
<td>12 (11%)</td>
</tr>
<tr>
<td>7</td>
<td>3 (3%)</td>
</tr>
<tr>
<td>8</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>10</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Missing</td>
<td>9 (8%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
</tbody>
</table>
### Table 4 – Continued

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enrolled in a Degree Program</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>31 (28%)</td>
</tr>
<tr>
<td>No</td>
<td>71 (65%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Unit for Current Position</strong></td>
<td></td>
</tr>
<tr>
<td>Adult medical surgical with telemetry</td>
<td>11 (10%)</td>
</tr>
<tr>
<td>Adult medical surgical without telemetry</td>
<td>2 (1.8%)</td>
</tr>
<tr>
<td>Adult step down</td>
<td>6 (5.5%)</td>
</tr>
<tr>
<td>Adult oncology</td>
<td>3 (2.7%)</td>
</tr>
<tr>
<td>Adult intensive care</td>
<td>21 (19.1%)</td>
</tr>
<tr>
<td>Emergency room</td>
<td>15 (13.6%)</td>
</tr>
<tr>
<td>Perioperative</td>
<td>4 (3.6%)</td>
</tr>
<tr>
<td>Pediatric medical surgical</td>
<td>6 (5.5%)</td>
</tr>
<tr>
<td>Pediatric oncology</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>Pediatric intensive care</td>
<td>5 (4.5%)</td>
</tr>
<tr>
<td>Neonatal intensive care</td>
<td>4 (3.6%)</td>
</tr>
<tr>
<td>Labor and delivery</td>
<td>16 (14.5%)</td>
</tr>
<tr>
<td>Mother and baby</td>
<td>4 (3.6%)</td>
</tr>
<tr>
<td>Other, not list</td>
<td>4 (3.6%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7.3%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
</tbody>
</table>

| Nursing Colleague’s Age                 |            |
| Similar in age                          | 17 (15%)   |
| Older than me                           | 22 (20%)   |
| Mixture of ages                         | 63 (57%)   |
| Not sure                                | 0 (0%)     |
| Missing                                 | 8 (7%)     |
| Total                                   | 110 (100%) |

| Nursing Manager’s Age                   |            |
| Similar in age                          | 8 (7%)     |
| Older than me                           | 93 (85%)   |
| Not sure                                | 1 (1%)     |
| Missing                                 | 8 (7%)     |
| Total                                   | 110 (100%) |

<p>| Type of Shift                           |            |
| Day shift                               | 42 (38%)   |
| Night shift or other                    | 60 (55%)   |
| Missing                                 | 8 (7%)     |
| Total                                   | 110 (100%) |</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>N (% )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of Shift</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;12</td>
<td>3 (3%)</td>
</tr>
<tr>
<td>12-14</td>
<td>93 (84%)</td>
</tr>
<tr>
<td>&gt;14</td>
<td>5 (5%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Years of Experience</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>5 (4.5%)</td>
</tr>
<tr>
<td>1</td>
<td>20 (18.2%)</td>
</tr>
<tr>
<td>2</td>
<td>18 (16.4%)</td>
</tr>
<tr>
<td>3</td>
<td>15 (13.6%)</td>
</tr>
<tr>
<td>4</td>
<td>12 (10.9%)</td>
</tr>
<tr>
<td>5</td>
<td>16 (14.5%)</td>
</tr>
<tr>
<td>6</td>
<td>6 (5.5%)</td>
</tr>
<tr>
<td>7</td>
<td>7 (6.4%)</td>
</tr>
<tr>
<td>8</td>
<td>2 (1.8%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7.3%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Years in Current Position</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>14 (12.7%)</td>
</tr>
<tr>
<td>1</td>
<td>36 (32.7%)</td>
</tr>
<tr>
<td>2</td>
<td>17 (15.5%)</td>
</tr>
<tr>
<td>3</td>
<td>11 (10.0%)</td>
</tr>
<tr>
<td>4</td>
<td>13 (11.8%)</td>
</tr>
<tr>
<td>5</td>
<td>7 (6.4%)</td>
</tr>
<tr>
<td>6+</td>
<td>3 (2.7%)</td>
</tr>
<tr>
<td>Missing</td>
<td>9 (8.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Number of Positions as a Registered Nurse</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>40 (36.4%)</td>
</tr>
<tr>
<td>2</td>
<td>31 (28.2%)</td>
</tr>
<tr>
<td>3</td>
<td>20 (18.2%)</td>
</tr>
<tr>
<td>5+</td>
<td>10 (9.1%)</td>
</tr>
<tr>
<td>Missing</td>
<td>9 (8.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
<tr>
<td><strong>Work Another Job as a Registered Nurse</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>13 (12%)</td>
</tr>
<tr>
<td>No</td>
<td>89 (81%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
</tbody>
</table>
Table 4 - Continued

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (% )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work in Magnet® Designated Hospital</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>39 (35%)</td>
</tr>
<tr>
<td>No</td>
<td>63 (57%)</td>
</tr>
<tr>
<td>Missing</td>
<td>8 (7%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>110 (100%)</td>
</tr>
</tbody>
</table>

| COVID-19 Pandemic Impact on Work-related Well-being           |          |
| Very high                                                    | 44 (40%) |
| Moderately high                                              | 40 (36%) |
| Moderately low                                               | 16 (14%) |
| Very low                                                     | 2 (2%)   |
| Missing                                                       | 8 (7%)   |
| **Total**                                                     | 110 (100%) |

**Missing Data**

Of the 110 participants, only 98 participants completed all items resulting in 4.7% missingness. Little’s (1988) MCAR test was completed to analyze the type of missingness, revealing a p-value of .089, indicating the data was completely missing at random (MCAR), decreasing the likelihood of systemic bias (Field, 2014). Missingness was then further examined across instruments to assess for potential impact on data analysis. Only one instrument had no missing data, which was the nursing practice worldviews scale. The other instruments missingness ranged from 3.6% (generational differences in practice worldviews questionnaire), to 10.9% (sociodemographic and occupational factors questionnaire), which demonstrated that as the survey length increased, participant responses decreased. The author suspects that the missingness was likely due to response burden, specifically the length of the online survey. When missing data is MCAR, the study sample is large, and the percentage of missing data is less than 5%, pairwise deletion is recommended as an acceptable method to control for missingness (Figuerdo, McKnight, Mcknight, & Sidani, 2000). Alternatively, multiple
imputation has been recommended to treat MCAR data, but due to issues of normality, multiple imputation was unable to be completed successfully. Therefore, pairwise deletion, or available-case analysis, was selected as the preferred method to treat the missingness for further a rigorous data analysis.

**Psychometrics**

Analysis of reliability was estimated with Cronbach’s α across all instruments to determine internal consistency. Overall, high internal consistency was demonstrated across all four instruments with Cronbach’s α ranging from .691 to .876. The Cronbach’s alpha for the *Generational Differences in Practice Worldviews* questionnaire was low at .445. Due to this, only individual items on the questionnaire were used for analyses. Table 5 demonstrates each instruments descriptive statistics and Cronbach α.

**Table 5**

*Descriptive Statistics for Included Scales*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Number of Items</th>
<th>Mean (SD)</th>
<th>Possible Range</th>
<th>Actual Range</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Practice Worldviews Scale (N-WVS Scale)</td>
<td>17</td>
<td>3.75 (.2)</td>
<td>1-4</td>
<td>2.9-4</td>
<td>.764</td>
</tr>
<tr>
<td>Perceived Co-Worker Support Scale</td>
<td>9</td>
<td>3.71 (.3)</td>
<td>0-4</td>
<td>3-4</td>
<td>.737</td>
</tr>
<tr>
<td>Connor-Davidson Resilience Scale (CD-RISC-10)</td>
<td>10</td>
<td>30.33 (5.3)</td>
<td>0-40</td>
<td>17-40</td>
<td>.876</td>
</tr>
<tr>
<td>Well-Being Index</td>
<td>9</td>
<td>6.89 (2.5)</td>
<td>2-12</td>
<td>2-12</td>
<td>.691</td>
</tr>
</tbody>
</table>

The reliability analysis also supports the use of the investigator developed instrument, the N-WVS scale, for use in this study. Cronbach’s alpha was .764, demonstrating strong internal
consistency. Item-total analysis supported all items as integral to the instrument’s reliability, thus, no items were recommended to be deleted to enhance internal consistency significantly. Inter-item analysis revealed that none of the items were significantly correlated with each other. Lastly, based on the criteria for construct validity as proposed by Carmines and Zeller (1979), it can be determined that the N-WVS scale has support for beginning construct validity. The determination for construct validity was made through a three-step process including: 1) specifying the theoretical relationships a-priori; 2) examining the relationships among the concepts empirically; and 3) interpreting the results to clarify the construct validity of the instrument (Carmines & Zeller, 1979). Additional analysis were completed to enhance construct validity interpretation, as discussed below under section “additional analysis.”

Tests of Normality

Skewness and kurtosis values were used to determine normality of the data. Due to the Likert-style method of the scales used in the online survey, a non-normal distribution was found on the N-WVS Scale and the item measuring perceived similarities of co-workers’ practice worldviews of a similar age. Due to this, both parametric (Pearson’s R) and non-parametric correlations (Spearman’s Rho) were analyzed across all variables to assess for differences due to issues of normality; ultimately, no significant differences were observed. For example, for the relationship between level of endorsement of a contemporary practice worldview and young adult nurse work-related well-being, Pearson’s R was .290 with a p=0.01; comparably, Spearman’s Rho was .283 with a p=0.01. Due to the lack of differences across parametric and non-parametric results, only the parametric tests were included.
Research Questions

Research Aim 1

Examine the type and significance of factors related to young adult nurse work-related well-being:

1. *What is the relationship between level of endorsement of a contemporary practice worldview and young adult nurse work-related well-being?*

   There was a significant positive relationship between level of endorsement of a contemporary practice worldview and young adult nurse work-related well-being, \( r = .290, \) \( p = 0.01. \) This indicated that young adult nurses who more strongly endorsed a contemporary practice worldview had greater overall work-related well-being, indicating that endorsing a contemporary practice worldview is associated with higher work-related well-being in young adult nurses.

2. *What is the relationship between young adult nurse work-related well-being and level of perceived differences between young adult nurse and co-worker practice worldviews?*

   There was a significant positive relationship between young adult nurse work-related well-being and the level of perceived differences between young adult nurses’ worldviews and the worldviews of co-workers of a different age, \( r = .401, \) \( p = 0.01. \) Young adult nurses who perceived fewer differences in worldviews with their colleagues of a different age had greater work-related well-being, indicating that perception of lower levels of differences in nurses and co-worker worldviews was associated with higher work-related well-being in young adult nurses.

   There was a significant positive relationship between young adult nurse work-related well-being and level of perceived differences among young adult nurses and their managers.
worldviews, regardless of their age, \( r = .407, p = 0.01 \). Young adult nurses who perceived fewer differences in worldviews with their manager (regardless of their age) had higher levels on the well-being index, indicating that perception of lower levels of differences with manager worldviews was associated with higher work-related well-being in nurses. Lastly, there was no significant relationship between young adult nurse work-related well-being and level of perceived difference between among young adult nurses and co-workers’ practice worldviews of a similar age, \( r = -.168, p > 0.05 \).

3. **What is the relationship between perceived co-worker social support and young adult nurse work-related well-being?**

   There was no significant relationship between perceived co-worker social support and young adult nurse work-related well-being, \( r = .169, p > 0.05 \).

4. **What is the relationship between resilience and young adult nurse work-related well-being?**

   There was a significant positive relationship between resilience and young adult nurse work-related well-being, \( r = .482, p = 0.01 \). Young adult nurses with greater resilience had overall greater work-related well-being, indicating that higher levels of resilience are associated with higher work-related well-being in young adult nurses.

5. **Does resilience moderate the relationship between perceived co-worker social support and young adult nurse work-related well-being?**

   There was no significant relationship between young adult nurse work-related well-being and the interaction of resilience and perceived co-worker social support.
6. What sociodemographic (chronological age, race/ethnicity, biological sex) and occupational (shift type, years of experience, length of time in position) factors significantly relate to young adult nurse work-related well-being?

There were no sociodemographic factors (chronological age, race/ethnicity, biological sex, gender identity, marital status, years of education, degree enrollment) that significantly related to young adult nurse work-related well-being.

There were two occupational factors that related significantly to young adult nurse work-related well-being: 1) Magnet® status was positively related to higher young adult nurse work-related well-being (r=0.206, p=0.05; r_s=0.224, p=0.05), 2) and the perceived impact of COVID-19 was inversely related to work-related well-being (r=-0.286, p=0.01; r_s=-0.272, p=0.01). The remaining factors (shift type, years of experience, length of time in current full-time RN position, number of jobs as a registered nurse, having another job as a registered nurse, colleagues ages) were not significantly related to nurse work-related well-being. Working in a Magnet® facility was associated with more positive nurse work-related well-being. Young adult nurses who perceived that they were more strongly affected by COVID-19 had lower work-related well-being.

Table 6

 Frequencies and Percentages for Young Adult Nurse Work-related Well-being

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work-Related Well-Being</strong></td>
<td></td>
</tr>
<tr>
<td>Optimal Work-Related Well-Being</td>
<td>30 (27%)</td>
</tr>
<tr>
<td>Suboptimal Work-Related Well-Being (score less than 8)</td>
<td>73 (67%)</td>
</tr>
<tr>
<td>Missing</td>
<td>7 (6%)</td>
</tr>
<tr>
<td>Total</td>
<td>110 (100%)</td>
</tr>
</tbody>
</table>
Table 7

Bivariate Correlations Significantly Related to Young Adult Nurse Work-related Well-being

<table>
<thead>
<tr>
<th>Variable</th>
<th>Contemporary Practice Worldview</th>
<th>Perceived Similarities of Manager’s Practice Worldviews Regardless of Age</th>
<th>Perceived Similarities in Practice Worldviews with Co-Workers of a Different Age</th>
<th>Resilience</th>
<th>Magnet® Designation</th>
<th>COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young Adult Nurse Work-Related Well-Being</td>
<td>.290**</td>
<td>.407**</td>
<td>.401**</td>
<td>.482**</td>
<td>.206*</td>
<td>-.286**</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

7. *What significant factors together best explain young adult nurse work-related well-being?*

Together, resilience, Magnet® designation, co-workers’ practice worldviews of a different age, and COVID-19, explained a significant 38% ($r^2=.377, p=.001$) of the variance in young adult nurse work-related well-being. Specifically, resilience, Magnet® designation, and perceived differences of co-workers’ practice worldviews of a different age were positively associated with higher levels of young adult nurse work-related well-being. COVID-19 was inversely associated with young adult nurse work-related well-being; meaning that, as the perceived impact of COVID-19 increased, young adult nurse work-related well-being decreased.

The data met the assumption of independent errors (Durbin-Watson value = 1.894); multicollinearity was similarly not a concern (Resilience, Tolerance =.917, VIF=1.040; Magnet® Designation, Tolerance=.993, VIF=1.007; Perceived Similarities in Practice Worldviews with Co-Workers of a Different Age, Tolerance =.885, VIF=1.130; COVID-19, Tolerance=.962,
VIF=1.040). The data contained approximately normally distributed errors as indicated by a histogram. Similarly, the p-p plot of standardized residuals revealed that the points were close to the line. Lastly, the scatterplot of standardized residuals indicated that the data met the assumption of linearity and homogeneity of variance.

**Table 8**

*Regression of Variables Resilience, Magnet® Designation, Perceived Similarities in Practice Worldviews with Co-workers of a Different Age, and COVID-19 on Young Adult Nurse Work-related Well-being*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.274</td>
<td>1.554</td>
<td>.820</td>
<td>.414</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>.182</td>
<td>.039</td>
<td>.391</td>
<td>4.669</td>
<td>.001</td>
</tr>
<tr>
<td>Magnet® Designation</td>
<td>.877</td>
<td>.407</td>
<td>.173</td>
<td>2.154</td>
<td>.034</td>
</tr>
<tr>
<td>Perceived Similarities in Practice Worldviews with Co-Workers of a Different Age</td>
<td>.695</td>
<td>.251</td>
<td>.236</td>
<td>2.772</td>
<td>.007</td>
</tr>
<tr>
<td>COVID-19</td>
<td>-.647</td>
<td>.257</td>
<td>-.205</td>
<td>-2.515</td>
<td>.014</td>
</tr>
</tbody>
</table>

Research Aim 2

Describe practice worldviews and their relationship to young adult nurse work-related well-being as identified by currently practicing young adult nurses:

1. *How do young adult nurses describe their views about human health, nursing practice, and nursing knowledge?*

Young adult nurses describe their views about human health, nursing practice, and nursing knowledge within the category, the *contemporary practice worldview of young adult nurses*. Four codes were described: 1) human-environment-health as ontogenetic and socially
determined, 2) nursing practice as a healing relationship, 3) nursing knowledge as influence, and 4) generational differences in practice worldviews.

Young adult nurses described human-environment-health as ontogenetic and socially determined, meaning that, the young adult nurse views human health as an individual developmental process characterized by both biological and environmental patterns that co-construct and modify each other.

In discussing what impacts their patient’s human-environment-health experience, participant three described:

“…it's just a combination of lifestyle, their environment, their home environment. Everything affects their health really.”

Biological patterns include patients’ individual’s health, their views on health, health literacy, health status, and their health behaviors. Environmental patterns included both social and physical determinants. For social determinants, social support from immediate family or healthcare providers was described. Social determinants also included the availability of resources to meet daily needs, socioeconomic conditions, culture, access to health care services, and exposure to crime, violence, and social disorder (e.g., racism). Physical determinants included their natural environment, such as climate change or pollution. In discussing the human-environment-health process and systemic inequities, participant six described:

“Whether that's racial inequality or income in relation to access to healthcare. I think we already know that certain groups of people are kind of put a step below just baseline, so I think we have some contributing factors from that. Their ability to access healthcare or preexisting conditions.”
Young adult nurses described that environmental patterns often override the biological patterns of influence based upon an individual’s social determinants. For example, participant 10 described:

“...People who have access to time, exercise, and eating healthy. They’re just so much healthier versus people whose lives are constantly stressful. They’re working a million jobs. Mostly just the different systemic injustice but the different ways they have access to resources in their community and how stressful their lives are.”

For the code, *nursing practice as a healing relationship*, young adult nurses described nursing practice as focused on promoting the health and well-being of the patient based upon their individual human-environment-health experience. Promotion of health and well-being was accomplished through mutuality between the nurse and patient. This mutuality helped support the construction of a healing relationship where trust was the goal. The young adult nurse described without trust, it was difficult to promote the health and well-being of patients with their individual human-environment-health experience in consideration. Ultimately, without trust, nursing practice becomes less personal, more standardized, and more focused on the healthcare systems priorities. Highlighting the importance of the healing relationship, participant six described:

“...I think being able to go into that and establish a good rapport with the patient and get that sense of trust that way when you work with them through difficult things later, whether that's I don't know physical therapy after a back surgery or talking to a patient's family members about goals of care, they have a sense of trust with you that you really have the patient's best interest at heart and you're not just doing something to check off the to-do list.”

Young adult nurses described that trust is established by the nurse through continuous clear communication (e.g., openness, honesty, providing up-to-date information) from commencement of the relationship; having empathy and compassion for the patient, their family,
and their situational context (e.g., seeing the person as a whole, thinking of them as family); relating to them and their family when appropriate (e.g., sharing personal lives, get to know them as an individual); and considering the individual preferences and needs of the patient within the healthcare system and their home environment. Young adult nurses describe trust as a result of a healing relationship between nurse and patient. This trust is affirmed by that patient through honest verbal indicators (e.g., they tell you), and willingness to listen. Moreover, signs of trust such as positive affirmations from the patient make the young adult nurse feel successful in their nursing practice. When discussing barriers to a healing relationship and establishing trust, the young adult nurses described working night shift, the COVID-19 pandemic, and system-related expectations as obstacles to mutuality.

The code, nursing knowledge as influence, described the way in which the young adult nurse constructs, uses, and is affected by knowledge in order to successfully navigate nursing practice and promote their patient’s human-environment-health experience. In daily practice, young adult nurses described that nursing knowledge is constructed through abductive reasoning resulting in theory construction. This occurs by weighing their patient’s acuity (objective data) and their individual preferences and needs (subjective data) as preliminary evidence. With this, young adult nurses theorize a “middle-way’’ to balance what is best for their patients’ health and well-being, while actively seeking support resources to affirm or refute their theoretical thinking. For example, in describing their thinking process when making patient care decisions, participant six described:

“So, I think the two things that I would consider necessary would be one any physiological data that is presenting. What their vitals are and what their CT scan read and more hard numerical data about potential outcomes. Oh, this has a good potential outcome, therefore if we intervene in this manner, it could have a high chance of success
like giving someone mannitol or something like that. Just having the numbers there to kind of support your theory. That would be the biggest thing if anything. I think the second would be more of the care decision behind the patient's preferences and needs or the family members in the case the patient is incapacitated.”

Young adult nurses described nursing knowledge as multifactorial and contextual, and because of that, it was important for the young adult nurse to be open to critique and change to best support their patients’ human-environment-health experience, and their individual growth as a nurse. Participant 14 described the significance of nursing knowledge as influence in daily nursing practice:

“Healthcare is different from other jobs because you have people's lives in your hands. Letting go of ego and being worried about making mistakes, letting that fear go and being receptive to patient critique and leadership critique is important, otherwise you don't grow as a nurse and your practice doesn't grow.”

2. How do young adult nurses describe the relationship between their practice worldview and their work-related well-being?

Young adult nurse’s described their relationship to their practice worldview and their work-related well-being in the category, the moral dimensions of work-related well-being. Specifically, this category described how their work-related well-being is influenced by three moral dimensions: moral distress, moral injustices, and moral residue. Moral distress was indicated by the young adult nurses experiences in daily practice. Moral injustice was indicated by the young adult nurses experiences working in a healthcare system where their contemporary practice worldview was not considered in decision making. These negative experiences with morality followed them home, indicating moral residue, resulting in suboptimal work-related well-being for the young adult nurse. For example, participant two described the experience of moral distress during the COVID-19 pandemic:
“We were told very early on when we had our first patients in America, a lot of our attendings were straight up telling us, if this person needs a ventilator, they are not going to get it. So, in a way, we were determining code status without really consulting the patient, which to me is very problematic and unethical. I know other nurses experienced the moral or ethical dilemma with that.”

In considering the role of the healthcare system, young adult nurse’s described being aware that the systems they work in are focused on meeting system-based needs, while simultaneously disregarding the needs of the nurse and patient contributing to their experience of moral distress.

Participant six described experiencing moral distress in daily practice and feeling complicit in violating patients human-environment-health experience:

“…just having really horrific patient experiences and having to bear witness to that and feeling sometimes complicit in, I think torture. I know that's not what it is, but when you're holding down a little lady with three people to shove a feeding tube in her face and she doesn't know what you're saying or why you're doing it, it feels kind of dirty. So, I don't leave work feeling great from that necessarily. It's not always you have a good "I saved someone's life today" mentality. Sometimes it's just you did patient care activities, and you did it as well as you could, it just doesn't feel good that you had to do what you did…”

For moral injustice, young adult nurse’s described experiencing this working in a system that didn’t support their contemporary practice worldview. Although they want to do what’s right for their patient, young adult nurses described knowing that they system was stacked against them and they were fighting a losing battle. For example, participant 10 described:

“Especially when I was a newer grad, I would come home and think, did I give that patient water? I still do that a little bit but that's not the issue as much. I would just come home and cry, and cry, and cry and think it feels like I'm not doing anything. The system is so stacked against my patients and no matter how hard I work, I can't do anything about it. I'm still working on how to feel like I'm doing something good in a system that's just so bad.”
Moreover, participant 14 described experiencing moral injustice when caring for patients when there are misalignments between their contemporary practice worldview and the patients social determinants:

“It feels like a losing battle because even though we say, you need to do this, in the back of our minds they can’t do that so in a couple months when the abdominal pain is back and they’re dehydrated from the nausea and vomiting, we’ll see them again and treat them. It’s almost like winning a battle but losing the war in this patient’s healthcare. We’ll see them again and again.”

These distressful and unjust moral experiences resulted in the young adult nurse perseverating on these experiences at home, indicating moral residue. The experience of moral residue disrupted their work/life balance, negatively impacted their work-related well-being, and led to the consideration of leaving the bedside. For example, participant 13 described their experiencing with moral residue:

“...about a year ago, I had an 18-year-old who was in a car accident and was newly paralyzed from the neck down. I thought about that a lot. I recently had a mom who lost her child in a car wreck and I actually pre-oped her and post-oped her because on the weekends, preop is not there. Right before she went back to surgery, she was asking me about her daughter and if she would be able to see her after surgery. I found out from the ER nurse that her daughter was actually vented and then her daughter ended up passing away. That situation was just... Any sad or traumatic situations are hard for me to let go and not think about after work.”

Young adult nurses described that their contemporary views on nursing, which values a healing relationship and that multiple factors influence the human-environment-health experience, took a significant toll on their well-being due to moral residue. Specifically, young adult nurses described that the personal investment they have in their patient care follows them home, making them want to avoid coming back to the bedside. Older adult nurses, comparably, are described having an ability to avoid moral residue of nursing practice.
“I think it's more personal for nurses who just haven't been there as long, which is both a good thing and a bad thing. Probably better for the patient that younger nurses are more able to step in and feel that emotion in an empathetic way, but it's also hard to take that stuff home. It really wears on you when you're dealing with those challenging situations frequently, especially for nurses who have several fetal demises in a row. You don't even want to come to work anymore. Older nurses are like, mm-hmm, yeah, I have another one.”

**Table 9**

*Codes and Salient Quotes for the Category, “The Moral Dimensions of Young Adult Nurse Work-related Well-being.”*

<table>
<thead>
<tr>
<th>Category</th>
<th>Code and Definition</th>
<th>Salient Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Moral Dimensions of Young Adult Nurse Work-Related Well-Being</td>
<td>1. Moral Distress: when one knows the right thing to do, but institutional constraints make it impossible to pursue the right course of action.</td>
<td>Interview #2: “We were told very early on when we had our first patients in America, a lot of our attendings were straight up telling us, if this person needs a ventilator, they are not going to get it. So, in a way, we were determining code status without really consulting the patient, which to me is very problematic and unethical. I know other nurses experienced the moral or ethical dilemma with that.”</td>
</tr>
<tr>
<td></td>
<td>2. Moral Injustice: when one is not included in decision making, or one’s views are not considered in decision making, making it impossible to promote the right course of action.</td>
<td>Participant 14: “It feels like a losing battle because even though we say, you need to do this, in the back of our minds they can't do that so in a couple months when the abdominal pain is back and they're dehydrated from the nausea and vomiting, we'll see them again and treat them. It's almost like winning a battle but losing the war in this patient's healthcare. We'll see them again and again.”</td>
</tr>
</tbody>
</table>
Table 9 - Continued

<table>
<thead>
<tr>
<th>Category</th>
<th>Code and Definition</th>
<th>Salient Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Moral Residue: the lingering feelings after a morally problematic situation has passed.</td>
<td>Interview #13: “...I had an 18-year-old who was in a car accident and was newly paralyzed from the neck down. I thought about that a lot. I recently had a mom who lost her child in a car wreck and I actually pre-oped her and post-oped her because on the weekends, preop is not there. Right before she went back to surgery, she was asking me about her daughter and if she would be able to see her after surgery. I found out from the ER nurse that her daughter was actually vented and then her daughter ended up passing away. That situation was just... Any sad or traumatic situations are hard for me to let go and not think about after work.”</td>
<td></td>
</tr>
</tbody>
</table>

3. What differences, if any, in practice worldviews do practicing young adult nurses perceive among other generations of nurses? What, if any, influences do these differences have on their work-related well-being?

Young adult nurses described that all nurses, regardless of age or unit, have similar nursing goals, but their views of nursing practice are different in the category, contemporary practice worldview, specifically the code, “generational differences in practice worldviews.” These differences are described as stemming from when and where a nurse went to nursing school, their practice experience, and their individual human-environmental-health experience. This difference in views is described to result in practice variations across different age cohorts of nurses, specifically with the application of outdated policies and procedures, nursing skills,
and models of nursing care (e.g., evidence-based practice versus patient-centered practice).

Moreover, young adult nurses describe themselves as more willing to stand up for what’s right, compassionate, and focused on the patients human-environment-health experience compared to older generations of nurses. Young adult nurses described older nurses as hardened to nursing practice or jaded, less compassionate, and more task focused. In sharing an experience of a young adult co-worker who had a transphobic experience with a patient, participant two described:

“...when the charge nurse, who is a little older, goes in, she started correcting the patient and saying, you will not talk about people like that. You don’t know who’s taking care of you. You have to be respectful. Both of these people are under 30. How they handled it was so different. It was very important because I think one coworker who was a little more privileged in the sense that she is not experiencing prejudice for gender expression or orientation was able to correct patients, which I've never really heard older nurses doing.”

In discussing the differences in approach to practice across age cohorts of nursing, participant 12 described:

“...but in the older age group, I would say there's a lot less compassion. I would say the biggest difference is taking what's going on in the patient's life into account. I think there's a lot more subtle comments like, well, what's she having babies for then? Why did she get pregnant again then? Just a little more judgmental in the older half of the unit.”

Lastly, participant 14 described the variations in approaches to practice across age cohorts of nurses:

“Older nurses, I would say they're more on task. This is what needs to be done. They maybe don't always put themselves in the patient's shoes because they'll be like, that doesn’t matter. This is what needs to be done...”
4. How do young adult nurses describe their work-related well-being and factors that influence it?

The category, “facilitators and barriers for young adult nurse work-related well-being,” described the aspects of the young adult nurse’s life that either enhanced or hindered the work-related well-being. Young adult nurses described their work-related well-being variably, ranging from suboptimal, to neutral, and high, but overall, young adult nurses were dissatisfied within the systems they work. They described that system-based factors were the primary cause of variations in their work-related well-being, but ultimately, the young adult nurse was responsible for their well-being. For example, participant nine, a young adult nurse with reported suboptimal well-being described:

“Unfortunately, my well-being that’s my responsibility. the reason why I say unfortunately, sometimes work can be not accommodating to those needs. It’s like, well okay, if you can’t handle it, what do you want us to do? I’m not sure if it’s because they’re not willing to assist, but at the end of the day, it’s my responsibility to make sure I’m able to one juggle all my responsibilities and two make sure I’m overall healthy and taking care of myself.”

Young adult nurses described multiple factors that significantly impacted their work-related well-being. For facilitators, young adult nurses described co-worker moral support and work/life balance. Young adults described co-worker moral support as the most significant factor positively influencing their work-related well-being. Co-workers were described as providing an important source of comfort through relation, validation, and comradery in the practice environment. Young adult nurses turned to their colleagues looking for a source of informal debriefing when things became morally difficult. For many, their co-workers were described as one of the main reasons why the young adult nurse would stay in their current nursing position. In discussing the importance of co-worker moral support, participant nine described:
“…If I didn't feel like I had my coworkers behind my back or being there and supportive, I would have probably left my workplace a long time ago just because it's too much. You're putting yourself in jeopardy and your license in jeopardy. Regardless of pay, regardless of benefits, regardless of all the perks and what not, it is not worth working in an environment where you don't have people behind you or with you. Understanding the job is so hard but we have each other so we can fight another day.”

Young adult nurses similarly described the importance of work/life balance for their work-related well-being. To the young adult nurse, work/life balance meant having a clear separation of time and activities between work and home so they could feel dedicated to both.

For example, participant 11 described the importance of work/life balance as a nurse:

“I feel the whole work/life balance is something that is important to my work-related well-being and all generations no matter what age you are. That's come into the forefront recently, especially now. I feel if your well-being isn't optimized or isn't even okay, I feel like your care as a nurse isn't maybe where it should be. It can take a toll on you.”

For inhibitors, young adult nurses primarily described their experiences with the COVID-19 pandemic but cautioned that many of these issues were present prior to the pandemic commencing. This included access to resources, staffing, changing policies and procedures, and moral distress. Moreover, these negative influences placed additional barriers for the young adult nurse to promote positive work-related well-being with work/life balance and co-worker support.

For example, participant nine described:

“…lack of resources, lack of staffing, lack of getting all our concerns addressed, things like that. Those are very draining, especially when we're supposed to provide patient care and do a good job. But definitely, all the drama from work and things like that, those don't help. If anything, it just makes the environment more toxic and unbearable, definitely and at one point, it will start affecting the overall well-being of your mental health and your physical health, even your spiritual health.”

Another inhibitor, young adult nurses described the general scarcity of resources that impacted their daily nursing practice, ultimately negatively impacted their work-related well-
being. Participant 2 described experiences where patients’ lives were jeopardized due to the scarcity of resources:

“...it's baffling when I'm in an RRT and our floor has absolutely no ABG kits. For this entire week, it's been a struggle to get 20 cc syringes. I think that adds onto the stress. I have a patient who is rapidly deteriorating and now someone has to go run to a floor above, maybe two floors above, depending on stock in there just to get something that I need now.”

Young adult nurses similarly described how staffing throughout the COVID-19 pandemic negatively impacted their work-related well-being. Many described working overtime and having feelings of guilt when not at work because they knew the stress their colleagues were facing. Additionally, the young adult nurse described concerns for the health and well-being of their colleagues who got sick from the COVID-19 virus. Participant 12 described difficulties with staffing and their experience having to stay home with COVID-19 due to system policies:

“I kept being positive still even though I wasn’t sick anymore. I was off work for five weeks. Then two of my coworkers all had it and our main OB doctor had it. So our nursing staff was cut down by a third and our main OB wasn’t there. It was super stressful for my department. The whole time I just felt like I had abandoned them. I wanted to go back to work and I wanted to help them and I couldn’t. That was really hard.”

Similarly, participant five described system-based decisions negatively impacting staffing:

“...having to send staff home because we haven't seen a large enough patient volume at a certain part of the day and then inevitably it gets busy and we're short-staffed. The administrative side of things doesn't understand that. Just don't send people home from the emergency room because it's slow, just like you don't send firefighters home just because there's no fire.”

Young adult nurses described how constantly changing policies and procedures related to the COVID-19 pandemic were a point of frustration and uncertainty, negatively impacting their work-related well-being. Inconsistencies in access to information across different disciplines
further exacerbated this experience. For example, participant six described their experience early in the pandemic with the absence of policies or procedures:

“There was a palpable tenseness being there but nobody knew what was going on or what was expected. There was no real protocol yet. If like, if a patient was admitted and you had to take care of one, you kind of felt like you were being thrown to the wolves as an experiment.”

Comparably, participant eight described the stress of the rapidly changing policies midst the pandemic that caused interprofessionally conflict:

“Our policies were changing so rapidly that often times anesthesia would have a different understanding, the doctors and residents would have a different understanding, and nursing would have gotten a different email always within like a half-hour. It was extremely frustrating. It was very, very stressful.”

While moral distress was specifically mentioned as a moral dimension or young adult nurse work-related well-being, in relation to the COVID-19 pandemic, moral distress was described as magnified. This includes the immense number of deaths nurses are bearing witness too, and emotional toll of taking the place of family members when visitations are restricted.

Interview #2: “…patient outcomes with coronavirus affecting patients who are very well-known to staff. In the past month probably, we have had ten or so deaths from COVID in our patients who I would flag as frequent fliers. That has been incredibly hard on a lot of us, especially when we can’t go to funerals and, you know, we’re the family that they have because family is not at the bedside.”

Lastly, managerial support was described as a significant factor that could either facilitate or inhibit work-related well-being of young adult nurses during the COVID-19 pandemic. Managers who took personal interest in their nurses and unit were seen as supportive; this included checking in on how the young adult nurse was doing, open communication, and transparency. For example, in discussing their experience with middle management, participant 12 described:
“While I was sick, I would text her and ask how things were going. Tell her I want to come back. I’m sorry I’m not there. The whole time she would just say, you need to get better. We all love you. We want you to come back because we miss you, but we’re okay. Don’t worry about us. She was just super supportive and super wonderful.”

Comparably, managers, especially upper management, who were task focused and/or fixated on protecting the morally bankrupt system were seen as untrustworthy. For example, participant 12 described an opposing experience with upper management where they felt their position threatened:

“The day after me and all my coworkers got diagnosed, the chief nursing officer came through my department and told everyone that if they knew who was sick and told other people, they would get fired for HIPAA violation. It was stupid because we’re all friends. It’s not like they were taking care of us in a nursing context. How is that a HIPAA violation?”

Participant eight described similar frustrations with management and a lack of communication and support during the COVID-19 pandemic:

“…for the most part, I think they just weren’t telling us much of anything. We have three managers and seven clinical coordinators on our unit. There were definitely enough people to be sending emails and to be giving updates, but they were so unsure as well that they just kind of opted for radio silence, which was really frustrating and made the whole situation more challenging. When they were giving us information, a lot of it was, you guys are overreacting. You don’t need to wear N95s all the time.”

**Additional Analysis**

Additional analysis were completed for two reasons: 1) further analyze for construct validity of the N-WVS scale as noted above, and 2) complete a regression analysis without the variable resilience. The rationale for the additional analysis without the variable resilience was two-fold. First, the divergence between quantitative and qualitative findings such that the significant correlation ($r=.48, p<.01$) was not supported by the qualitative results supported this decision. Secondly, there was concern for the significant moderate correlation between two
independent variables (resilience and endorsement of contemporary practice worldview, r = .42, 
p< .01), which resulted in elimination of the practice worldview from the initial regression model. Out of interest in further examining the potential role of the practice worldview in research, a second regression model was examined in which resilience was removed.

After removal of the variable resilience from the model, contemporary practice worldview, co-workers’ practice worldviews of different age, managers practice worldviews, and COVID-19, best explained young adult nurse work-related well-being. This model explained 31% of the variance in young adult nurse work-related well-being (r²=.306, p=.001). This was a difference of 7% from the model including resilience.

This model met the assumptions of independent errors (Durbin-Watson value = 2.016); multicollinearity was similarly not a concern (Contemporary Practice Worldview, Tolerance = .904, VIF=1.106; Perceived Similarities in Practice Worldviews with Co-workers of a Different Age, Tolerance =.808, VIF=1.238; Perceived Similarities of Managers Practice Worldviews Regardless of Age, Tolerance=.776, VIF=1.289; COVID-19, Tolerance =.935, VIF=1.069). The data contained approximately normally distributed errors as indicated by a histogram. The p-p plot of standardized residuals revealed that the points were close to the link, and the scatterplot of standardized residuals indicated that the data met the assumption of linearity and homogeneity of variance.
Table 10

*Regression of Variables Contemporary Practice Worldview, Perceived Similarities in Practice Worldviews with Co-workers of a Different Age, Managers Practice Worldviews, and COVID-19 on Young Adult Nurse Work-related Well-being*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant*</td>
<td>-3.388</td>
<td>3.63</td>
<td>-.932</td>
<td>-2.34</td>
<td>.021</td>
</tr>
<tr>
<td>Contemporary Practice Worldview</td>
<td>2.34</td>
<td>1.00</td>
<td>-.21</td>
<td>-2.48</td>
<td>.015</td>
</tr>
<tr>
<td>Perceived Similarities in Practice Worldviews with Co-Workers of a Different Age</td>
<td>.687</td>
<td>.277</td>
<td>-.233</td>
<td>-2.53</td>
<td>.013</td>
</tr>
<tr>
<td>Perceived Similarities of Manager’s Practice Worldviews Regardless of Age</td>
<td>.664</td>
<td>.293</td>
<td>-.218</td>
<td>-2.268</td>
<td>.026</td>
</tr>
<tr>
<td>COVID-19</td>
<td>-.697</td>
<td>.275</td>
<td>-.221</td>
<td>-2.53</td>
<td>.013</td>
</tr>
</tbody>
</table>

*F (4, 97), R=.553, R2=.306, Adj. R2=.278

For additional analysis to assess for construct validity for the N-WVS Scale, bivariate correlations were completed to assess for significance. Specifically, three variables were identified as significantly related to the contemporary practice worldview. This included perceived co-worker social support, resilience, and the perceived differences of managers practice worldviews regardless of age there was a significant positive relationship between level of endorsement of a contemporary practice worldview and perceived co-worker support, r=.388, p=0.01.

a. Young adult nurses who more strongly endorsed a contemporary practice worldview perceived greater co-worker support.
2. There was a significant positive relationship between level of endorsement of a contemporary practice worldview and resilience, $r=0.424$, $p=0.01$.

   a. Young adult nurses who more strongly endorsed a contemporary practice worldview had greater resilience.

3. There was a significant positive relationship between level of endorsement of a contemporary practice worldview and level of perceived differences among young adult nurses and their managers worldviews, regardless of their age, $r=0.271$, $p=0.01$.

   a. Young adult nurses who had more strongly endorsed a contemporary practice worldview perceived less differences with their manager (regardless of their age).

Table 11

*Bivariate Correlations Significantly Related to Contemporary Practice Worldviews*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Perceived Co-Worker Social Support</th>
<th>Resilience</th>
<th>Perceived Similarities with Managers Practice Worldviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contemporary Practice Worldviews</td>
<td>0.388**</td>
<td>0.424**</td>
<td>0.271*</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Mixed Methods Metainferences

The mixed methods integration and analysis was based upon the proposed theoretical framework. Therefore, the guiding concepts included young adult nurse work-related well-being, contemporary practice worldviews, generational differences in practice worldviews, co-worker social support, and resilience. Expansion, concordance, and divergence further clarified several
guiding concepts and their theoretical relationships. Table 12 presents the joint display of quantitative, qualitative, and mixed methods results with details on the metainferences.

For young adult nurse work-related well-being, facilitators and inhibitors were expanded upon that would not have been possible with one research method alone. For example, the quantitative results revealed that as the perceived impact of COVID-19 increased, young adult nurse work-related well-being decreased. Comparatively, the qualitative results revealed specific nuances of the perceived impact of COVID-19, such as access to resources, staffing, changing policies and procedures, and moral distress. The contemporary practice worldview of the young adult nurse was expanded upon as both a source of liberation and a source of oppression when there is misalignment between the worldviews of co-workers, management, or the systems they work in. This is further demonstrated in the concept of generational differences in practice worldviews, where concordance was found as both the qualitative and quantitative data supported that perceived differences between practice worldviews of the young adult nurse and their older colleagues or managers negatively impacted their well-being. For perceived co-worker social support, expansion was demonstrated as perceived co-worker moral support, not perceived co-worker social support, was identified as a facilitator to young adult nurse work-related well-being. Lastly, for the concept of resilience, expansion and divergence were revealed. Specifically, in the quantitative data, nurses who had greater resilience had lower levels of distress, indicating that a higher level of resilience was associated with higher work-related well-being in young adult nurses. Comparably, resilience was not described or demonstrated by the young adult nurses as a means to enhance or maintain work-related well-being. Moreover,
concerns were raised as resilience and young adult nurse work-related well-being may be conceptually similar leading to misleading findings for well-being research.

Table 12

*Joint Display for Mixed Methods Metainferences*

<p>| Concept                  | Quantitative Result                                                                                                                                                                                                 | Qualitative Result                                                                                                                                                                                                 | Mixed Methods Metainferences                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <strong>Young Adult Nurse Work-Related Well-Being</strong> | Together, resilience, Magnet® designation, co-workers’ practice worldviews of a different age, and COVID-19, best explained young adult nurse work-related well-being. After removal of the variable resilience from the model, contemporary practice worldview, co-workers’ practice worldviews of different age, managers practice worldviews, and COVID-19, best explained young adult nurse work-related well-being. | Young adult nurses described that system-based factors were the primary factor negatively impacting of their work-related well-being. Co-worker moral support and work/life balance were described as facilitators for young adult nurse work-related well-being. Lack of resources, staffing, moral distress, and managerial support were described as inhibitors for young adult nurse work-related well-being. | Expansion: A more comprehensive understanding of facilitators and inhibitors of young adult nurse work-related well-being were revealed. Facilitators included co-worker moral support, work-life balance, the contemporary practice worldview of the young adult nurse, managerial support, and Magnet® designation. Inhibitors included COVID-19 (e.g., access to resources, staffing, changing policies and procedures), moral dimensions, perceived differences in practice worldviews, and managerial support. |
| <strong>Contemporary Practice Worldview</strong> | Young adult nurses who more strongly endorsed a contemporary practice worldview had higher work-related well-being.                                                                                                                                                           | Young adult nurses described their relationship to their practice worldview and their work-related well-being in the category, “the moral dimensions of work-related well-being.” Specifically, this category described how their work-related well-being is influenced by three moral dimensions: moral distress, moral injustices, and moral residue. | Expansion: The contemporary practice worldview of the young adult nurse is both a source of liberation and a source of oppression when there is misalignment between the worldviews of co-workers, management, or the systems they work in. |</p>
<table>
<thead>
<tr>
<th>Concept</th>
<th>Quantitative Result</th>
<th>Qualitative Result</th>
<th>Mixed Methods Metainferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generational Differences in Practice Worldviews</td>
<td>Young adult nurses who perceived fewer differences in practice worldviews in practice with their colleagues of a different age had higher work-related well-being. Young adult nurses who perceived fewer differences in practice worldviews with their manager (regardless of their age) had higher work-related well-being.</td>
<td>Young adult nurses describe themselves as more willing to stand up for what’s right, compassionate, and focused on the patient's human-environment-health experience compared to older generations of nurses. Older nurses were described as hardened to nursing practice or jaded, less compassionate, and more task focused; they have built an ability to disassociate from the morally distressful and emotionally laborious aspects of nursing. Managers who took personal interest in their nurses and unit were seen as supportive; managers who were focused on the system needs and associated tasks were seen as untrustworthy.</td>
<td>Concordance Both the qualitative and quantitative data supported that perceived differences between practice worldviews of the young adult nurse and their older colleagues or managers negatively impacted their well-being.</td>
</tr>
<tr>
<td>Perceived Co-Worker Social Support</td>
<td>There was no significant relationship between perceived co-worker social support and young adult nurse work-related well-being.</td>
<td>Young adults describe co-worker moral support as the most significant factor influencing their work-related well-being. Co-workers were described as providing an important source of comfort through relation, validation, and comradeship in the practice environment. Young adult nurses turned to their colleagues looking for a source of informal debriefing when things became morally difficult.</td>
<td>Expansion Perceived co-worker moral support, not perceived co-worker social support, was a facilitator to young adult nurse work-related well-being.</td>
</tr>
</tbody>
</table>
Table 12 - Continued

<table>
<thead>
<tr>
<th>Concept</th>
<th>Quantitative Result</th>
<th>Qualitative Result</th>
<th>Mixed Methods Metainferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>Young adult nurses who had greater resilience had higher work-related well-being.</td>
<td>Resilience was not described or demonstrated by the young adult nurse’s as a means to enhance or maintain work-related well-being.</td>
<td>Expansion and Divergence Resilience and young adult nurse work-related well-being may be conceptually similar leading to misleading findings for well-being research.</td>
</tr>
</tbody>
</table>

**Summary**

In this chapter, the results of the mixed methods study were presented. The two research aims proposed were addressed, along with details about the sample characteristics, missingness, psychometrics, tests of normality, mixed methods metainferences, and additional analysis. In the following and last chapter, a discussion will be completed in light of the presented results guided by the theoretical framework while considering how both the mixed methods approach allowed for a more comprehensive understanding of young adult nurse work-related well-being than one method alone.
CHAPTER 5: DISCUSSION

This final chapter will present a discussion based upon the results of the completed mixed methods study. After a brief overview, discussion points will be guided by the originally proposed theoretical framework including the concepts of young adult nurse work-related well-being, contemporary practice worldview, generational differences in practice worldviews, co-worker social support, and resilience. An updated framework in light of the results will then be proposed. Implications from this study for nursing research, education, practice, and policy, along with future directions for research on young adult nurse work-related well-being will be recommended. Lastly, limitations and strengths will be discussed along with concluding remarks.

Introduction

The purpose of this study was to describe and examine potentially related factors to young adult nurse work-related well-being. By using a theory guided mixed methods approach from a lens of intermodernism, a more comprehensive understanding of young adult nurse work-related well-being during the COVID-19 pandemic was attained.

In the qualitative phase, several themes as factors that influence work-related well-being were identified in the results, which were either concordant, expansive, or divergent with the quantitative results. The themes included the contemporary practice perspective; moral dimensions (moral distress, injustice, and residue); co-worker moral support and managerial support; work-life balance; and COVID impact. A substantive finding from the qualitative phase was the significance of moral dimensions (moral distress, moral injustice, and moral residue) that negatively impact young adult nurse work-related well-being. The negative impact may occur from a misalignment of contemporary practice views of the young adult nurse with views of
colleagues of a different age, managers, or the healthcare system. To review, the contemporary practice worldview for the young adult nurse values the patient as an individual and the social determinants that impact their health and well-being, and nursing practice was viewed as a healing relationship where nurses are the conduit to promoting their patient’s health and well-being, despite working in systems that may have divergent views on patient care. To achieve this, young adult nurses use abductive reasoning to enhance their understanding of the patient and the context of their lives. Young adult nurses saw this knowledge and their practice worldview as informing if not compelling a certain approach to practice, that if not supported by managers or the system could lead to moral distress.

In the quantitative phase, seven key variables were identified as significantly related to young adult nurse well-being: The nurse’s endorsement of a contemporary practice perspective, resilience, Magnet® designation, and similarities in practice views with co-workers of a different age and with managers regardless of age, were positively related to young adult nurse work-related well-being. COVID-19 was negatively associated with nurse well-being. A theoretical concern regarding conceptual similarity between resilience and work-related well-being coupled with qualitative findings led to analysis of a model that excluded resilience to allow for additional analysis of the role of potential influences on well-being.

The mixed methods integration and analysis revealed concordance, divergence, and expansion of findings. The sections below elaborate on interpretation of this integration in reference to the specific concepts and their relationships as proposed in the theoretical framework. A revised theoretical framework concludes the discussion. The chapter closes with implications for research, education, practice, and policy.
Young Adult Nurse Work-related Well-being

The results from this study support that young adult nurses have suboptimal work-related well-being. Previous research confirms this finding with millennial nurses reported as having the most suboptimal work-related well-being, highest turnover intentions, and the lowest overall job satisfaction across practicing nurses (Brunetto et al., 2013; Dols et al., 2019; Wieck et al., 2010; Wilson et al., 2008). Qualitative and quantitative results were concordant on the impact of COVID on well-being. COVID contributed to limited access to resources, staffing, changing policies and procedures that impacted the work environment and diminished work-related well-being. In relation to the COVID-19 pandemic, research on stress, depression, and burnout levels in front-line nurses revealed that younger nurses with fewer years of work experience had higher levels of stress and burnout (Murat et al., 2021). Moreover, in a study evaluating the psychological well-being and factors associated with post-traumatic stress disorder among front-line nurses during the COVID-19 pandemic in Anhui, China, nurses who had less than two years of experience had a higher risk of developing PTSD compared to their colleagues (Li et al., 2021).

In this study, the average work-related well-being score was 6.89 (SD=2.5), with 67% of the sample been rated as having suboptimal work-related well-being. Previous research indicates that a score greater or equal to 2 on the well-being index indicates a greater risk for a number of adverse outcomes such as burnout, severe fatigue, poor overall quality of life, patient care errors, and intent to leave for reasons other than retirement in the next 24 months (Dyrbye et al., 2018). In this study, any score less than or equal to 8 indicated suboptimal work-related well-being. An average score of 6.89 supports that young adult nurses in this study have a greater risk for
burnout, severe fatigue, poor quality of life, patient care errors, and intent to leave in the next 24 months compared to the average US nursing population. Moreover, compared to research by Dols, Chargualaf, and Martinez (2019), which reported that one-third of young nurses were expected to leave their current job within two years, and two-third within five years, this study suggests that about two-thirds of young adult nurses are at risk for leaving the work force within the next 24 months. Further research is needed to examine if this finding is generalizable in other populations of young adult nurses, and if the non-normative experience of the COVID-19 pandemic is responsible for this inflated finding.

Lastly, through integration work-life balance was found as a significant facilitator for young adult nurse work-related well-being resulting in expansion. Previous research supports the facilitator of work-life balance for young adult nurses’ work-related well-being. A recent integrative review by Keith, Warshawsky, and Talbert (2021), identified work-life balance as a major theme for Millennial nurse job satisfaction and their intent to stay in nursing. Across nurses in general, those who strive less for work-life balance have been shown to have higher intentions to leave or turnover rates (Matsuo et al., 2021; Moloney et al., 2018; Yamaguchi et al., 2016). To date, we do not fully understand the long-term effects of suboptimal work-life balance, or work-related well-being, for nurses. Moreover, nursing turnover is costly and results in both staffing and patient safety issues (Henderson, 2019). This finding should create pause for nursing leaders, as 75% of all workers in the US will soon be millennials (Keith et al., 2021). Nursing leaders would be wise to consider the importance of work-life balance for their staff, and ask them what they need or want to promote work-life balance as a form of primary prevention. Previously, Henderson (2019) recommended considering flexible scheduling to aide work-life
balance and nursing turnover. For flexible scheduling, nursing leaders should consider asking their staff what type of schedule works for them (e.g., two or three shifts in a row versus five), and the frequency of spaced days off (e.g., large gaps between shifts versus smaller). These needs may change as the young adult nurses life changes, such as starting a family, so nursing leaders can reassess at several intervals to assure work-life balance is being supported for staff.

**Contemporary Practice Worldviews**

This study’s quantitative and qualitative results addressed the significance of contemporary practice worldviews for young adult nurse work-related well-being and supported the proposed theoretical framework. For concordance, both the quantitative and qualitative results supported that the contemporary practice worldview is significant for young adult nurse work-related well-being. In terms of expansion, qualitative findings led to new ideas beyond the quantitative result that endorsement of a contemporary practice view was positively associated with well-being; the contemporary practice worldview was expanded to reveal that it may serve as both a source of liberation and oppression depending upon the views of colleagues, managers, and healthcare systems for the young adult nurse. This is a significant finding that supports the importance of considering the contemporary practice perspective of young adult nurses in practice. Specifically, misalignment of practice views between the young adult nurse and their colleagues of a different age, managers, and the healthcare system may diminish well-being through the action of moral dimensions (moral distress, moral injustice, and moral residue). This study supports that young adult nurses focus on unitary human-environment-health processes, with emphasis on the influence of social determinants across the lifespan. In their prismatic mid-paradigm of nursing, Littzen, Langley, and Grant (2020), proposed the inclusion of the moral-
type concepts of compassion, equity, and operational environments to be included for human-environment-health processes, turning the gaze of our disciplinary perspective towards social determinants of health. For healing relationships, this proposed aspect of the disciplinary perspective was supported with young adult nurses focus on enhancing the well-being of patients and their families, with the caveat that their focus was impeded upon due to differences in views of older colleagues, managers, and the healthcare system. This inference is due to the findings that similarities in views of different aged nurse colleagues and managers (regardless of their age) positively relate to young adult nurse work-related well-being. Previous research supports that if nurses are able to effectively perform their caregiving roles the quality of healthcare, job satisfaction, and performance increases (Tuna & Safiye, 2021). Ultimately, differences in practice views may contribute to conflict or lack of moral support for valued practices, which could result in negative moral experiences, specifically moral distress, moral injustice, and moral residue.

Moral distress as a concept has been extensively discussed in the nursing literature, but its link to the contemporary practice perspective and young adult nurse work-related well-being has previously not been discussed. Proposed by Jameton (1984), moral distress was originally defined as arising when one knows the right thing to do, but institutional constraints make it impossible to pursue the right course of action. According to Reed and Rishel (2015), moral distress is prevalent in nurses who are caring for patients who are critically ill or near the end of life, which is representative of the COVID-19 pandemic. The consequences of moral distress include a combination of biological, psychological, and stress-related reactions (Rittenmeyer & Huffman, 2009) that exacerbate chronic illnesses, and negatively impacting work environment
such as increasing nurses’ intention to leave (Burston & Tuckett, 2012; Morley et al., 2019; Pendry, 2007).

The young adult nurses in this study described experiencing moral distress throughout their daily practice, but they also described the experience of moral injustice, which has not previously been described for nurses. Moral injustice was indicated for the young adult nurse when their contemporary practice worldview was not considered in decision making. Reed and Rishel (2015) postulated that patients experience moral injustice when they have the potential to lose out on the benefit of the nurse’s knowledge for healthcare decisions. For nurses, moral injustice occurs when they are not included in decision making, or their views are not considered in decision making, ultimately inhibiting their ability to promote their patient’s health and well-being. Both moral distress and moral injustice result in the young adult nurse experiencing moral residue, which has previously been described by Epstein and Hamric (2009) as, “the lingering feelings after a morally problematic situation has passed” (p. 3). Webster and Bayliss (2000), offer an alternative definition of moral residue as, “that which each of us carries with us from those times in our lives when in the face of moral distress we have seriously compromised ourselves or allowed ourselves to be compromised.” Moral residue was often described by the young adult nurses as negatively impacting their work-life balance, an important facilitator to their work-related well-being. Lastly, Epstein and Hamric (2009) proposed the existence of a model called the “crescendo effect.” This model posits that in healthcare providers, moral distress and moral residue are closely linked. Specifically, an increase in moral distress results in an increase in moral residue, and the occurrences of a moral residue crescendo is dependent upon the “repeated experiences of moral distress” (p. 4). These repeated experiences with the moral
dimensions of nursing raise the concern for long term effects, such as moral injury. According to Vittone & Sotomayer (2021), moral injury is an extreme form of moral distress, that arises from the build-up of moral residue (Roycroft et al., 2020). Future research is needed to further clarify the moral dimensions of young adult nurse work-related well-being in order to provide managers with knowledge useful in mitigating these events from occurring.

**Generational Differences in Practice Worldviews**

There was a concordance of findings on the potential significance for work-related well-being of generational (or age) differences in practice worldviews. This study suggested that generational difference may be significant, although it is difficult to draw solid inferences from findings regarding age differences about generational differences. Future research should pre-determine age ranges representative of generational cohorts to assess for differences across generations in practice worldviews. Generational differences in practice worldviews in nurses of any age have not been previously addressed in the literature. Differences in views about nursing values, ideals, and visions between young and older nursing staff have been previously demonstrated (Palese et al., 2006) as a cause of generational conflict amongst nurses, specifically with the resistance to change in practice by older nurses (Welcher, 2011).

In this study, a potential difference in practice views was found where young adult nurses described themselves as being open to critique and change to best support their patients’ needs and grow their nursing practice and in contrast, their older nurse colleagues were described as focused on “what needs to be done” and less compassionate for the patient’s experience. Differences in practice views may be attributed in part to practice experience, as well as the nurses individual life experience is a cause for variations in worldviews. In contrast to younger
nurses and contemporary nursing practice, older nurses may have experienced a more restricted, traditional nursing role within the healthcare system (i.e. medical doctors make the decisions and give the orders) that constrain nursing practice and may foster moral distress if not unjust experiences that have forced them to focus on “what needs to be done” to survive. Healthcare system factors as well as lifespan developmental factors may influence work-related well-being.

Similar to generational differences in practice worldviews, differences in managers worldviews regardless of age were found as significant for young adult nurse work-related well-being. Managers who had similar views as the young adult nurses in this study were seen as more supportive and compassionate, whereas those who had divergent views were seen to favor the needs of the system. Previous research supports that nurses across generations relationships with management is integral for their job satisfaction, well-being, and affective commitment (Brunetto et al., 2012). Moreover, about half of nurses commitment to their hospital and intention to stay has been explained by the quality of their workplace relationships, which includes both their supervisors and colleagues, along with their well-being (Brunetto et al., 2013). Gazing across age cohorts, older nurses in this study were reported to perceive higher levels of well-being and commitment, along with lower intentions to leave compared to their younger colleagues. Further research is needed to clarify the role of managers worldviews for young adult nurses’ work-related well-being. Specifically, it would be helpful to analyze what areas of divergence are seen within the practice worldviews of managers that conflict with young adult nurses’ practice worldviews.
Co-worker Social Support

Integrative interpretation expanded understanding of co-worker social support. Specifically, co-worker moral support and managerial support, and not merely co-worker social support, may be significant for young adult nurse work-related well-being, refining the proposed theoretical framework. Co-worker moral support has not been specifically discussed in the literature as a significant factor for young adult nurse work-related well-being. In a recent study examining the priority-settling dilemmas, moral distress, and support experienced by nurses and physicians across medical specialties in the early phase of the COVID-19 pandemic in Western Norway, support from colleagues, specifically talking with close colleagues, was helpful during the pandemic (Miljeteig et al., 2021). From this research, it was recommended that healthcare providers have time to share their experiences with colleagues during stressful times such as the COVID-19 pandemic (Miljeteig et al., 2021). Moreover, a recent systematic review by Fernandez et al., (2020), further bolsters the importance of professional collegiality, which included sharing their difficulty experiences. These finding’s echo the significance of co-worker moral support for the young adult nurses in this study, but future research is needed to clarify the role of moral support for young adult nurse work-related well-being. As caution to nursing leaders and managers, previous research has found that nurses may be resistant to asking for help, and similarly, may want to deal with the effects of suboptimal work-related well-being, such as fatigue, on their own (Steege & Rainbow, 2017). Nursing leaders and managers may want to consider this finding in their endeavors to promote young adult nurse work-related well-being, as normalization of help-seeking behaviors may need to occur prior to intervention adoption and success.
**Resilience**

There was a divergence in quantitative and qualitative results on resilience. In the quantitative portion of the study, resilience was a significant correlate of young adult nurse work-related well-being, whereas the qualitative portion did not reveal resilience as an important factor in work-related well-being. Moreover, there was no interaction between perceived co-worker social support and resilience with young adult nurse work-related well-being as originally theorized. In this study, the average resilience score was 30.3 (SD=5.3), which is considered lower than the US national average between 31.8 to 32.1, indicating potential problems for young adult nurses in coping with stress or bouncing back from adversity (Connor & Davidson, 2020). In the literature, resilience has been studied extensively in regards to nursing workforce concerns. Resilience scores in practicing nurses have been reported as lower in New Zealand and Singapore (Ang et al., 2018; Tabakakis et al., 2019). Comparably, in a small study examining the needs of nurses in the United States before and after disasters, resilience scores were higher than the young adult nurses in this study (Turner, 2015). Lastly, in examining the lived experiences of nurses working during the COVID-19 pandemic, Robinson and Stinson (Robinson & Stinson, 2021) reported that nurses over the age of 30 in the United States demonstrated both resilience and healthy coping mechanisms. Overall, the young adult nurses in this study were not considered to have optimal resilience, and additional analyses were done to extend knowledge about other factors important to work-related well-being.

**Updated Theoretical Framework**

Aligning with the authors philosophical perspective of intermodernism, according to Reed (2021, in press), mixed methods integration and analysis fosters nursing theorizing by
promoting knowledge development that honors the complex, dynamic, and open phenomena that is the nature of human-environmental-health. In light of the mixed methods results and reflecting upon the literature, the proposed theoretical framework was updated based upon an integrated interpretation of the findings to promote a more comprehensive understanding of young adult nurse work-related well-being.

The updated model of the theoretical framework is presented in Figure 5. Within the conceptual framework, there are six sets of relationships. First, young adult nurses endorsement of a contemporary practice worldview in nursing is positively associated with young adult nurse work-related well-being. This relationship infers that if a young adult nurse strongly identifies with contemporary beliefs and values about nursing practice, their work-related well-being is positively influenced. Second, generational differences in practice worldviews are negatively associated with young adult nurse work-related well-being. This relationship implies that as generational differences in practice worldviews increase, the work-related well-being of the young adult nurse is negatively influenced. Third, differences in managers worldviews are negatively associated with young adult nurse work-related well-being. This relationship implies as differences in managers worldviews increase, the work-related well-being of the young adult nurse is negatively influenced. Fourth, moral distress was proposed to be negatively associated with young adult nurse work-related well-being. This implies that as morally distressful events occur, such as moral injustice or moral residue, young adult nurse work-related well-being will be negatively influenced. Fifth, perceived co-worker moral support is proposed to be positively associated with young adult nurse work-related well-being. For the young adult nurse, this relationship implies that if there is a perception that co-workers are supportive for the young
adult nurse during or after a morally stressful event, their work-related well-being will be increased. Lastly, health-related global crisis are negatively associated with young adult nurse work-related well-being. This finding is consistent with the lifespan developmental perspective, which identifies non-normative change (e.g., the COVID-19 pandemic) as well as normative changes in development as significant to well-being (reference). As non-normative health-related crisis unfolded and affected the healthcare system, young adult nurses had difficulty maintaining or enhancing their work-related well-being.

Figure 5

*Model Diagram of the Updated Theoretical Framework of Young Adult Nurse Work-related Well-being*
Implications

Research

This study supports that practicing young adult nurses today have high levels of distress and low work-related well-being, underpinning the need for further research and interventions to assist this population. From a conceptual lens, young adult nurse work-related well-being is supported as a novel but important concept for nursing workforce research. The proposed theoretical framework is a tool that may be used to guide future research to more precisely explain young adult nurse work-related well-being.

In particular, the moral dimensions of young adult nurse work-related well-being are recommended for further examination. Specifically, clarification on the moral dimensions (e.g., moral distress, moral injustice, and moral residue), and co-worker moral support are needed to more fully understand their relationship with young adult nurse work-related well-being. In addition, once the COVID-19 pandemic is under control, an assessment of young adult nurse work-related well-being with the updated theoretical framework is recommended to determine how young adult nurse work-related well-being has been impacted.

In reference to the N-WVS scale, this study marks its initial use in research, providing preliminary findings on its validity and utility for nursing research. The results support continued use and refinement of the N-WVS scale to establish that it is a reliable and valid scale that can be used in future nursing research. Further reliability and validity testing is recommended, as well as future research is needed to assess the N-WVS scale with other age cohorts of nurses to clarify differences in practice views across different cohorts of nurses. It is time for nursing science to
deem that nurses, as with patients, have developmental needs that should be considered in their work-related well-being.

**Education**

The proposed theoretical framework may be used as a tool to teach young adult nurses about their work-related well-being prior to entering practice. Pre-licensure nursing programs may consider the inclusion of education on the moral dimensions (e.g., moral distress, moral injustice, and moral residue) in their curriculum, as well as moral support resources (e.g., peer moral support programs). Finally, well-being initiatives to foster work-life balance should be considered in undergraduate nursing programs in order to prepare future nurses for the practice environment.

**Practice**

This study supports that young adult nurses experience significant levels of distress and have suboptimal work-related well-being placing them at risk for burnout, severe fatigue, poor quality of life, patient care errors, and intent to leave within 24 months. The proposed theoretical framework, with additional empirical support, may be useful to leadership and management to address young adult nurse work-related well-being in practice from a developmental lens. Furthermore, this study supports that young adult nurses in practice struggle with moral distress, moral injustice, and moral residue, heightening the need for moral support resources, especially during periods of significant distress such as the COVID-19 pandemic.

**Policy**

The work-related well-being of all nurses, including young adult nurses, should be considered as a marker of healthcare system success. Suboptimal well-being of nurses has
already been supported in nursing research as a correlate for adverse outcomes, such as medication errors (Melnyk et al., 2018). It is estimated that each year 7-9,000 people die from a medication error, and costs for medication errors exceed $40 billion each year in the United States alone (Tariq et al., 2021). In order to hold systems accountable for suboptimal work environments that are placing patients and healthcare providers at risk for adverse outcomes, policy should be adopted to promote safer work environments that support the well-being of healthcare providers, and ultimately the health and well-being of the patients they care for.

**Strengths and Limitations**

Strengths of this study include the theory guided mixed methods design, the novel focus on the contemporary practice perspective, and the developmental lens on young adult nurse work-related well-being. The theory guided mixed methods design is considered a strength as it promoted a more comprehensive understanding of young adult nurse work-related well-being than what would have been accomplished with one method alone. Moreover, using theory to guide the mixed methods study supported logical consistency across the study components promoting precision. The novel focus on the contemporary practice perspective of the young adult nurse was a strength in conveying the intricate connection between nursing knowledge, nursing practice, and the nursing workforce, specifically young adult nurse work-related well-being. Lastly, examining young adult nurse work-related well-being from a developmental lens promotes the understanding of a sub-group in nursing that is at great risk for adverse outcomes.

Limitations of this study include a primarily white and female sample. At the time of data collection, the COVID-19 pandemic and the Black Lives Matter social justice movement were disproportionately impacting Black, Indigenous, and people of color (Centers of Disease Control
and Prevention, 2021). Due to this, there is a lack of representation from Black and Indigenous nurses specifically indicating structural missingness (Dillard-Wright & Walsh, 2019). Future research is recommended to examine young adult nurse work-related well-being with a more diverse and larger sample in order to assess for differences across sub-groups. Lastly, the cross-sectional nature of the quantitative data does not allow for inferences of causation. Future research is needed to examine if the findings from this study are generalizable or transferable to other young adult nurses and their work-related well-being.

**Conclusion**

The purpose of this study was to describe and examine potentially related factors to young adult nurse work-related well-being. By using a theory guided mixed methods approach from a lens of intermodernism, a more comprehensive understanding of young adult nurse work-related well-being during the COVID-19 pandemic was elucidated. Young adult nurses were found to have suboptimal work-related well-being during the COVID-19 pandemic, with two-thirds of the sample at risk of leaving the workforce within the next 24 months. A theoretical framework was proposed to enhance understanding of potential factors that contribute to young adult nurse work-related well-being. Future research is needed to elucidate the moral dimensions of young adult nurse work-related well-being, including the roles of co-worker and managerial moral support.
APPENDIX A:

THE UNIVERSITY OF ARIZONA INSTITUTIONAL REVIEW BOARD DETERMINATION LETTER, STUDY DISCLOSURE, AND PARTICIPANT CONSENT FORM
Date: June 26, 2020
Principal Investigator: Chloe Olivia Litzen
Protocol Number: 2006749047
Protocol Title: Young Adult Nurse Work-Related Well-being, Contemporary Practice Worldview, Resilience, and Co-Worker Support
Determination: Approved
Expiration Date: June 25, 2025

Documents Reviewed Concurrently:
- Data Collection Tools: Litzen_Qualitative Instrument_06_19_2020.docx
- Data Collection Tools: Quantitative Instruments_FINAL_05_27_2020.docx
- HSPP Forms/Correspondence: Litzen_IRBFORM_Final_DR_06_18_2020.pdf
- HSPP Forms/Correspondence: Litzen_Personnel Form_FINAL_06_18_2020.pdf
- HSPP Forms/Correspondence: Litzen_Addendum ConsentWaiver_FINAL.pdf
- Informed Consent/PHI Forms: Litzen_Study_Disclosure_Qualitative_FINAL_DR_06_23_2020.doc
- Informed Consent/PHI Forms: Litzen_Study_Disclosure_Qualitative_FINAL_DR_06_23_2020.pdf
- Informed Consent/PHI Forms: Litzen_Study_Disclosure_Quantitative_FINAL_DR_06_23_2020.doc
- Other: Litzen_IRB Form Responses_06_19_2020.docx
- Other Approvals and Authorizations: COI Certification Complete for 2006749047.msg
- Recruitment Material: Litzen_RecruitmentForm_06_19_2020.docx

Regulatory Determinations/Comments:
- Exempt Approval 45 CFR 46.104(d)(2): Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) any disclosure of the human subjects responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects, financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by .111(a)(7).
- Limited IRB Review 45 CFR 46.111(a)(7) for Exempt 45 CFR 46.104(d)(2), 45 CFR 46.104(d)(3) or 45 CFR 46.104(d)(8): As documented in the file, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data.

This project has been reviewed and approved by an IRB Chair or designee.
University of Arizona
Qualtrics Survey Study Disclosure to Participate in Research

Study Title: Young Adult Nurse Work-Related Well-Being, Contemporary Practice
Worldview, Resilience, and Co-Worker Support

Principal Investigator: Chloe O. R. Littzen

Sponsor: Sigma Theta Tau Beta Mu Chapter

Summary of the research
This is a study disclosure form for participation in a research project. Your participation in this research study is voluntary. It contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

Why is this study being done?
The study is being done to improve the understanding of young adult nurses' work-related well-being. The findings of this study would increase the understanding of young adult nurses' work-related well-being, and assist in the development of strategies to help maintain and enhance their well-being, ultimately supporting the nursing workforce.

What will happen if I take part in this study?
- You will be asked to complete a 73-item online survey about your work-related well-being as a young adult nurse

How long will I be in the study?
- 15 minutes for the online survey

How many people will take part in this study?
- 65 young adult nurses in the online survey

Can I stop being in the study?
- Participation is voluntary, you are not required to participate
- You may exit the survey at any time by closing your browser window
- All data up to the point you exit will be kept and will be unidentifiable

What risks or benefits can I expect from being in the study?
- You will be providing valuable information that will be used to develop a more comprehensive understanding of young adult nurse work-related well-being
• There are no expected risks to you as a result of participating in this study, but some participants may experience minor anxiety when responding to questions about work-related well-being or their co-worker support
• There are no direct or immediate benefits to participants for participating in this study

Will I be paid for participating in the study or experience any costs?
• You will be entered into a raffle to receive a $50 Amazon gift card for your participation in the online survey
• The only cost to you is your time

Will my study-related information be kept confidential?
• The information that you give in the study will be anonymous
• Your name will not be collected or linked to your answers
• All data collected will be de-identified and stored in a locked secure location
• These data will be stored for six years as required by the University of Arizona

The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The University of Arizona Institutional Review Board; other federal, state, or international regulatory agencies; or the sponsor of the study, if any, may review the research records for monitoring purposes.

Will my study-related information be used for future research?
• Information collected about you will not be used or shared for future research studies

Who can answer my questions about the study?
For questions, concerns, or complaints about the study you may contact the primary investigator Chloe Litzten at clittzen@email.arizona.edu

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or online at http://rgw.arizona.edu/compliance/human-subjects-protection-program.

Agreeing to the study disclosure form
I have read (or someone has read to me) this form, and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by agreeing to this form. If I want a copy of this form, I will email clittzen@email.arizona.edu.
For Qualtrics survey: To participate in this study, you must click “yes” in the Qualtrics survey to agree to the study disclosure form. You cannot begin the survey without agreeing to the study disclosure. Once you click yes, the survey will begin and your agreement will be saved.
Study Title: Young Adult Nurse Work-Related Well-Being, Contemporary Practice Worldview, Resilience, and Co-Worker Support

Principal Investigator: Chloe O. R. Littzen

Sponsor: Sigma Theta Tau Beta Mu Chapter

Summary of the research
This is a study disclosure form for participation in a research project. Your participation in this research study is voluntary. It contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

Why is this study being done?
The study is being done to improve the understanding of young adult nurses’ work-related well-being. The findings of this study would increase the understanding of young adult nurses’ work-related well-being, and assist in the development of strategies to help maintain and enhance their well-being, ultimately supporting the nursing workforce.

What will happen if I take part in this study?
- You will be asked to participate in an online interview
- You will be asked to turn your video off
- This interview will be audio recorded with your permission with two separate devices

How long will I be in the study?
- Up to 45 minutes for the online interview

How many people will take part in this study?
- Up to 15 young adult nurses in the online interview

Can I stop being in the study?
- Participation is voluntary, you are not required to participate
- You may withdraw from the study at any time by emailing the primary investigator
- You can withdraw participation and have your audio file destroyed at any time during the interview

What risks or benefits can I expect from being in the study?
- You will be providing valuable information that will be used to develop a more comprehensive understanding of young adult nurse work-related well-being
There are no expected risks to you as a result of participating in this study, some participants may experience minor anxiety when responding to questions about work-related well-being or co-worker support.

There are no direct or immediate benefits to participants for participating in this study.

Will I be paid for participating in the study or experience any costs?

- For your participation, you will receive a $25 Amazon gift card.
- The only cost to you is your time.

Will my study-related information be kept confidential?

- Your name will not be collected or linked to your answers.
- The interview will be audio recorded only with your permission.
- The audio recordings will be transcribed and once verified by the research team they will be deleted.
- All data collected will be de-identified and stored in a locked secure location.
- These data will be stored for six years as required by the University of Arizona.

The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The University of Arizona Institutional Review Board; other federal, state, or international regulatory agencies; or the sponsor of the study, if any, may review the research records for monitoring purposes.

Will my study-related information be used for future research?

- Information collected about you will not be used or shared for future research studies.

Who can answer my questions about the study?

For questions, concerns, or complaints about the study you may contact the primary investigator Chloe Littzen at clittzen@email.arizona.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 520-626-6721 or online at http://rgw.arizona.edu/compliance/human-subjects-protection-program.

Agreeing to the study disclosure form

I have read (or someone has read to me) this form, and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by agreeing to this form. I was emailed a study disclosure prior to the interview, and can request another copy at any time from clittzen@email.arizona.edu.
For interview over Zoom: To participate in this study, you must say “yes” to agree to the study disclosure form. You cannot begin the interview without agreeing to the study disclosure. Once you say yes, the interview will begin and your study disclosure agreement will be documented.
APPENDIX B:

INSTRUMENTS FOR DATA COLLECTION
Nursing Practice Worldviews Scale (N-WVS Scale)  
Chloé Littzen © 2021

*Worldviews* refer to the philosophical views or beliefs nurses hold about human beings, health, nurse-patient relationship, nursing knowledge, and other practice related concepts. The purpose of this scale is to understand nurses general views and beliefs about nursing practice.

**Directions** Read each item below and indicate the extent to which the item describes your beliefs and perceptions as a nurse. There is no right or wrong answer, I am interested in your personal beliefs about nursing as it relates to your practice. As you respond to each item, please think about yourself in relation to your nursing practice today, then, circle the number that is the best representative of you as a nurse.

1) Human health is a dynamic and transformative process involving multiple interacting parts.
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

2. Human health is influenced by individual life experiences and behaviors, the environment, and the ongoing interactions of these parts.  
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

3. Human health is complex and unpredictable even when it seems simple; how one patient is influenced by their situation or environment may be different than another.  
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

4. Generally speaking, I value the relationships I have with my patients in my role as a nurse.  
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

5. I tailor my approach to establishing a therapeutic relationship with each of my patients and their families.  
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree
6. I build trusting relationships with my patients and their families by actively listening and acknowledging their concerns and experiences.
   a) Strongly agree
   b) Somewhat Agree
   c) Somewhat Disagree
   d) Strongly Disagree

7. I try to be compassionate towards my patients.
   a) Strongly agree
   b) Somewhat Agree
   c) Somewhat Disagree
   d) Strongly Disagree

8. I work collaboratively with patients and their families to support a common vision of their health and well-being goals.
   a) Strongly agree
   b) Somewhat Agree
   c) Somewhat Disagree
   d) Strongly Disagree

9. My nursing practice is informed by objective information, such as vital signs, and subjective information, such as the perceptions and feelings of my patient/their family.
   a) Strongly agree
   b) Somewhat Agree
   c) Somewhat Disagree
   d) Strongly Disagree

10. I consider how my nursing interventions impact my patients throughout their care.
    a) Strongly agree
    b) Somewhat Agree
    c) Somewhat Disagree
    d) Strongly Disagree

    a) Strongly agree
    b) Somewhat Agree
    c) Somewhat Disagree
    d) Strongly Disagree

12. My ethical beliefs/values are important to consider in my work as a nurse with patients, colleagues, and/or my employer.
    a) Strongly agree
13. My patients social, cultural, spiritual, emotional, and political experiences and preferences inform my nursing practice.
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

14. I construct my nursing knowledge from my experiences as a nurse and from scientific sources, such as my education, academic journals or research, and/or consulting with others.
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

15. My nursing practice is both systematic and messy; plans don’t always go as expected, but planning helps me organize my care and respond to unexpected change.
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

16. I strive to continuously develop my nursing knowledge through self-correction, including my nursing skills, interventions, and overall understanding of best practice.
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree

17. In order to develop my nursing knowledge, I am open to feedback from others and needed changes in current practice.
   a) Strongly agree  
   b) Somewhat Agree  
   c) Somewhat Disagree  
   d) Strongly Disagree
Generational Differences in Practice Worldviews Questionnaire

1) My co-workers, who are similar in age to me, generally have a view of nursing practice similar to mine.
   a. Strongly agree
   b. Somewhat Agree
   c. Somewhat Disagree
   d. Strongly Disagree
   e. This question does not apply to me since I do not work with nurses in this age group.

2) My co-workers, who differ in age from me, generally have a view of nursing practice similar to the way I view nursing practice.
   a. Strongly agree
   b. Somewhat Agree
   c. Somewhat Disagree
   d. Strongly Disagree
   e. This question does not apply to me since I do not work with nurses in this age group.

3) My nursing manager, regardless of their age, has a view of nursing practice similar to mine.
   a. Strongly agree
   b. Somewhat Agree
   c. Somewhat Disagree
   d. Strongly Disagree

4) My well-being is affected by my co-workers' views of nursing practice.
   a. Strongly agree
   b. Somewhat Agree
   c. Somewhat Disagree
   d. Strongly Disagree

5) My well-being is affected by my managers view of nursing practice.
   a. Strongly agree
   b. Somewhat Agree
   c. Somewhat Disagree
   d. Strongly Disagree
Perceived Co-Worker Social Support Scale (Päätalo & Kyngäs, 2016)

Please evaluate the importance of the following items as it relates to your work-related well-being as a registered nurse.

1. Helping other nurses to cope by sharing work tasks
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important

2. Considerate attitude towards other nurses
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important

3. Receiving support from other nurses (i.e., unfamiliar situations)
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important

4. Receiving practical help with your own work tasks
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important

5. Giving practical help to colleagues
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important
6. Helping each other in the daily work
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important

7. Appreciating colleagues of different ages
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important

8. Sharing thoughts about work among nurses
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important

9. Good cooperation with your pair or work group
   a) Not important at all
   b) Somewhat unimportant
   c) Neither important nor unimportant
   d) Somewhat important
   e) Very important
Connor-Davidson Resilience Scale (CD-RISC-10) © (Campbell-Sills & Stein, 2007)

For each item, please select the option that best indicates how much you agree with the following statements as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt.

1. I am able to adapt when changes occur.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

2. I can deal with whatever comes my way.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

3. I try to see the humorous side of things when I am faced with problems.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

4. Having to cope with stress can make me stronger.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

5. I tend to bounce back after illness, injury, or other hardships.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time
6. I believe I can achieve my goals, even if there are obstacles.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

7. Under pressure, I stay focused and think clearly.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

8. I am not easily discouraged by failure.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

9. I think of myself as a strong person when dealing with life’s challenges and difficulties.
   a. not true at all
   b. rarely true
   c. sometimes true
   d. often true
   e. true nearly all the time

10. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.
    a. not true at all
    b. rarely true
    c. sometimes true
    d. often true
    e. true nearly all the time
Well-Being Index Scale (Dyrbye et al., 2018)

During the past month...

1. have you felt burned out from your work?
   a) yes       b) no

2. have you worried that your work is hardening you emotionally?
   a) yes       b) no

3. have you often been bothered by feeling down, depressed, or hopeless?
   a) yes       b) no

4. have you fallen asleep while sitting inactive in a public place?
   a) yes       b) no

5. have you felt that all the things you had to do were piling up so high that you could not overcome them?
   a) yes       b) no

6. have you been bothered by emotional problems (such as feeling anxious, depressed, or irritable)?
   a) yes       b) no

7. has your physical health interfered with your ability to do your daily work at home and/or away from home?
   a) yes       b) no
Please rate how much you agree with the following statements

8. The work I do is meaningful to me:
   a) very strongly disagree
   b) strongly disagree
   c) disagree
   d) neutral
   e) agree
   f) strongly agree
   g) very strongly agree

9. My work schedule leaves me enough time for my personal/family life:
   a) strongly agree
   b) agree
   c) neutral
   d) disagree
   e) strongly disagree
1. What is your current age?
   a) fill in number

2. What region of the United States do you currently live in?
   a) Northeast   b) Southeast
   c) Midwest   d) Southwest
   e) West   f) Pacific Northwest

3. What race/ethnicity do you identify with?
   a) African American or Black   b) American Indian or Alaska native
   c) Asian American or Asian   d) Hispanic or Latinx
   e) Middle Eastern   f) Multiracial
   g) Pacific Islander   h) Non-Hispanic White or Caucasian
   i) Identity not listed – please describe at the end of the survey if desired.

4. What is your biological sex?
   a) Female   b) Male

5. What gender do you identify with?
   a) Woman   b) Man
   c) Transgender   d) Non-binary
   e) Genderqueer or gender nonconforming
   f) Identity not listed – please describe at the end of the survey if desired.
   g) Prefer not to disclose

6. What is your current marital status?
   a) Single   b) Married or living with significant other

7. Approximately how many years of higher education do you have after high school? (e.g., a bachelor’s degree is 4 years).
   a. Fill in number

8. Are you currently enrolled in a degree program?
   a) Yes   b) No

9. Please identify the type of unit that most closely corresponds to your primary nursing position:
   a) Adult medical surgical with telemetry
   b) Adult medical surgical without telemetry
   c) Adult step down
   d) Adult oncology
   e) Adult intensive care (e.g., cardiac, neuro, trauma, surgical, etc.)
f) Emergency room
g) Perioperative (e.g., pre-anesthesia, operating room, post-anesthesia, etc).
h) Pediatric medical surgical
i) Pediatric oncology
j) Pediatric intensive care
k) Neonatal intensive care
l) Labor and delivery
m) Mother and baby
n) Other, not listed.

10. Are most of your nursing colleagues similar in age to you, older than you, or is there a mix in ages?
   a) Similar in age
   b) Older than me
   c) Mixture of ages
   d) Not sure

11. Is your nursing manager similar in age to you, or older than you?
   a) Similar in age
   b) Older than me
   c) Not sure

12. What type of shift do you typically work?
   a) Day shift
   b) Night shift or other

13. How many hours do you work on typical shift?
   a) Fill in number

14. How many years of experience do you have as a registered nurse?
   a) Fill in number

15. How many years have you been in your current position as a registered nurse?
   a) Fill in number

16. How many positions have you had as a registered nurse (including this job)?
   a) Fill in number

17. Do you currently work in another job as a registered nurse?
   a) Yes
   b) No

18. If you selected “yes” to the previous item that you work in another job as a registered nurse, how many hours per week do you work in that job?
   a) Fill in number
19. Do you currently work at a Magnet® designated hospital?
   a) Yes  b) No

20. To what degree do you think the coronavirus (COVID-19) pandemic affected, or is affecting, your work-related well-being?
   a) Very high
   b) Moderately High
   c) Moderately Low
   d) Very Low

21. If there is anything else that you believe is important for us to know about you and/or your work-related well-being, please describe (write in) below. This is also where you can provide more details related to your race/ethnicity or gender identity:
   a. Open-ended text box
Semi-Structured Interview Tool

The purpose of the following interview questions is to better understand nurses’ work-related well-being and views about nursing practice. Your participation is voluntary and anonymous. The information collected during this interview will not be shared with anyone, including leadership at your place of work. There are no right or wrong answers, I am interested in your personal opinions as a practicing nurse. Please answer each question honestly and provide real world examples when possible.

I am going to be recording this interview for the purpose of this study, do you give your consent to proceed with the interview and recording after reviewing the informed consent?

<table>
<thead>
<tr>
<th>Domain</th>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophical Worldviews /Contemporary Practice Worldview</td>
<td>Subdomain 1: Human-environment-health processes</td>
</tr>
<tr>
<td></td>
<td>What would you say influences your patients’ health?</td>
</tr>
<tr>
<td></td>
<td>Prompts: their physical environment, family support, overall patient health status, and/or nursing involvement.</td>
</tr>
<tr>
<td></td>
<td>Describe your views on the connection between patient’s health and the environment.</td>
</tr>
<tr>
<td>Subdomain 2: Healing Relationships</td>
<td>Describe the importance of the nurse-patient relationship in your nursing practice?</td>
</tr>
<tr>
<td></td>
<td>How do you build a relationship with your patients and their families?</td>
</tr>
<tr>
<td></td>
<td>How do you know or feel that the relationship you have with your patient/families is successful?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain</th>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophical Worldviews /Contemporary Practice Worldview</td>
<td>Subdomain 3: Nursing Practice Knowledge</td>
</tr>
<tr>
<td></td>
<td>When making patient care decisions, what information do you consider necessary in your decision-making process and why?</td>
</tr>
<tr>
<td></td>
<td><strong>Prompt:</strong> For example, vital signs; perceptions and feelings; ethical beliefs/values; social, cultural, spiritual, emotional experiences and beliefs, both you and your patients/families.</td>
</tr>
<tr>
<td></td>
<td>What sources of knowledge do you utilize when making decisions about your patients’ nursing care and why?</td>
</tr>
</tbody>
</table>
Prompt: For example, your nursing education, academic journals, personal experience, and/or consulting with others.

Describe a recent patient care problem where you needed help and how you solved it.

Generational Differences in Philosophical Worldviews

Think about how you view the delivery of patient care and your own practice.

Do your co-workers who are under age 30 think about their own practice and care delivery in a way that is similar or different from yours? If they do, in what ways are they similar? If not, how are their views different?

Do your co-workers who age 30 and over think about their own practice and care delivery in a way that is similar or different from yours to yours? If they do, in what ways are they similar? If not, how are their views different?

Among nurses, what do you believe are the biggest differences in beliefs/approaches about nursing practice? Why do you think that is?

Domain

Interview Questions

Young Adult Nurse Work-Related Well-being

Overall, how would you describe your level of work-related well-being?

What factors most impact your work-related well-being?

Prompts: co-workers, work environment, stress, work/life balance, diet.

Has the coronavirus (COVID-19) pandemic impacted your work-related well-being, and if so, how?

What do you do to maintain or enhance your work-related well-being?

Closing Interview Question:

Is there anything else that you feel is important to add to our conversation today about your work-related well-being or your perspectives on nursing as a young adult nurse?
REFERENCES


https://doi.org/10.1097/00005110-200503000-00006

https://doi.org/10.1016/j.outlook.2011.04.004

https://doi.org/10.1111/jonm.12111

https://doi.org/10.1177/0969733012462049

https://doi.org/10.1111/j.1741-6612.2009.00416.x

https://doi.org/10.1002/jts.20271

https://doi.org/10.1111/jonm.12601

https://doi.org/10.3928/00220124-20190319-05

https://doi.org/10.1002/da.10113


Epstein, R. M. & Krasner, M. S. (2013). Physician resilience: What it means, why it matters, and how to promote it. *Academic Medicine, 88*(3), 301-303. [https://doi.org/10.1097/ACM.0b013e318280cff0](https://doi.org/10.1097/ACM.0b013e318280cff0)


