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Moral Challenges, Moral Distress, and Moral Resilience in Critical Care Nurses During the COVID-19 Pandemic

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University of Massachusetts Worcester

Graduate School of Nursing

*Moral Challenges, Moral Distress, and Moral Resilience in Critical Care Nurses
During the COVID-19 Pandemic*

A Dissertation Presented

By

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Abstract

PURPOSE: The purpose of this qualitative descriptive study was to describe critical care nurses' experiences of moral challenges, moral distress, and moral resilience during the COVID-19 pandemic. The specific aims of this study were to:

1. Describe the moral challenges experienced by ICU nurses.
2. Describe moral resilience in terms of integrity, buoyancy, moral efficacy, self-regulation, and self-stewardship among ICU nurses (from Rushton's framework).
3. Explore the relationship between moral distress and moral resilience to advance the concept of moral resilience in the face of the COVID-19 pandemic.

FRAMEWORK: This study was undergirded by an adaptation of Rushton's conceptual framework of moral concepts.

DESIGN: A qualitative descriptive design was used. Participants were recruited between January to May 2021, and a semi-structured interview guide was utilized to interview participants.

RESULTS: 17 participants were interviewed for the study. Participants described the four themes of moral challenges: death and dying, pain and suffering, being alone, and being helpless and not in control. Moral resilience was described as: integrity, buoyancy, moral efficacy, self-regulation, self-stewardship, and self-perception. The relationship between moral distress and moral resilience was described as iterative and fluid.

CONCLUSION: The findings of the study provided a new domain of moral resilience called self-perception and a revised adaptation of the conceptual framework for moral resilience.

Keywords: moral challenges, moral distress, moral resilience, critical care nurses, covid-19 pandemic, ICU

Introduction

The COVID-19 pandemic is causing significant morbidity and mortality worldwide. At the time of this writing, over 62 million people have been infected with SARS-COV-2 and more than 1.4 million have died (World Health Organization, 2020). From the first known case of the coronavirus in December 2019 to current times, the virus has spread from Wuhan, China to all parts of the world (World Health Organization, 2020). In the United States (U.S.) alone, over 13.4 million have been infected and over 266,000 have died (The New York Times, 2020). This pandemic has greatly challenged the U.S. health care system, its resources, and especially intensive care units (ICUs). With rising cases of COVID-19 each day, a study projected that the number of cases will overwhelm the hospital systems in the west, north Midwest, Florida and upper New England (Miller et al., 2020). To prevent hospital system from being overwhelmed with COVID-19 cases, patients were transferred to other hospitals and field hospitals were setup in order to not gridlock the hospital system (Petrishen, 2020).

Complications of COVID-19

One of the life-threatening complications of SARS-COV-2 is acute respiratory distress syndrome (ARDS) which requires hospitalization in the ICU (Singhal, 2020). The supportive treatment for COVID-19 related ARDS is mechanical ventilation in the ICU where patients are in isolation due to the infectious nature of the virus (Yang et al., 2020). The morbidity associated with SARS-COV-2 includes shock, acute kidney injury, and cardiac injury (Yang et al., 2020). In a cohort study of admitted ICU patients with COVID-19 in New York City, a team of researchers followed the hospital course of 300 patients from March to April 2020. The results of the study showed that over 91% of the patients developed ARDS and over 91% were in the ICU with ventilator support (Chand et al., 2020). Within the 30-day hospitalization, there was a 52%

mortality rate and chances for mortality increased with comorbidities such as obesity, cardiovascular disease, smoking history, and diabetes (Chand et al., 2020). In addition to ARDS, patients also developed acute kidney injury and shock that required medications to support blood pressure. (Chand et al., 2020). The human resources available to care for a critically ill patient depend on multiple factors, but nursing workload and resources available are an important component (Oliveira et al., 2016).

Moral Adversity

In 2015, the American Nurses Association released the Code of Ethics for nurses to incorporate into their practice and follow ethical standards. Ethics is an integral part of nursing practice. Integrity is viewed as the foundation of nursing care in the clinical setting (Rushton, 2018). Rushton (2018) asserts that moral adversity occurs in the context of moral stress, moral challenges, constraints on moral agency, and when one anticipates a moral threat. Moral adversity threatens personal moral well-being, integrity, and conscience. Rushton also suggests that when faced with moral adversity, clinicians should act and use this opportunity to “do the right thing” by calling upon one’s personal integrity and innate resilient potential to overcome such challenges and thereby restore personal integrity (Rushton, 2018, p. 19).

Moral Distress

In the ICU, life and death decisions are made in seconds and can lead to moral distress. Moral distress was first recognized by Jameton in 1984 (Jameton, 1984) (see Table 1). Jameton defined moral distress as the state in which the nurse knows the right and wrong action, but is constrained by a current situation to not be able to perform the right act (Jameton, 1984). Nurses score higher in moral distress than other healthcare professionals such as physicians, “respiratory therapists, pharmacists, and social workers” because nurses struggle with the difficulty to

provide care, end-of-life discussions, disagreements with family members, and unmet needs in terms of resources and support from management (Dodek et al., 2016, p. 179; Henrich et al., 2016).

Moral Resilience

In the face of moral distress, the phenomenon of moral resilience has been proposed as an alternative to moral distress. For the purposes of this study, moral resilience is defined as the capability of a person to act and maintain or improve his or her personal integrity when faced with challenging situations that are rooted in moral or ethical issues (Lachman, 2016; Rushton, 2016) (see Table 1). It is important to note that some have proposed that moral resilience is a personal characteristic that is innate, distinct from moral distress (Sala Defilippis et al., 2019a).

Empirical research on moral resilience is scarce (see Appendix A for a summary of studies). There is also a gap in our understanding about moral resilience in ICU nurses during a pandemic and the interplay between moral distress and moral resilience. Therefore, the purpose of this study is to describe ICU nurses' experiences of moral adversity, distress and resilience during the COVID-19 pandemic. The specific aims of this qualitative descriptive study are to

1. Describe the experiences of moral adversity, moral distress, and threats to moral well-being, integrity, and conscience of ICU nurses.
2. Describe moral resilience in terms of integrity, buoyancy, moral efficacy, self-regulation, and self-stewardship among ICU nurses.
3. Explore the relationship between moral distress and moral resilience to advance the concept of moral resilience in the face of a global pandemic.

Conceptual Framework

The conceptual framework that will be used to undergird this study was developed from Rushton's (2018) writings on moral resilience in healthcare (see Figure 1). The components of this framework were developed from a content analysis of 184 health care professionals' and 23 non-health care clinicians' personal definition of moral resilience, including those in chaplain services (Holtz et al., 2017). The results of the analysis suggest that moral resilience is comprised of five concepts: (a) integrity, (b) buoyancy, (c) moral efficacy, (d) self-regulation, and (e) self-stewardship (see Table 2). Table 2 describes each of these concepts in detail. The conceptual framework suggests that healthcare providers respond in several ways to an event or situation that challenges their personal and/or professional "moral compass" (Rushton, 2018, p. 77).

According to Rushton (2018), moral resilience is described as a person's ability to either maintain, rebuild, or strengthen personal integrity when faced with difficulties that challenges their moral beliefs. The pathway to moral resilience or moral distress begins with an event or situation that can be sudden or insidious. The event or situation eventually leads to moral adversity that causes moral challenges and stress on the individual (Rushton, 2018). The impact of the event or situation can threaten the moral well-being, integrity, and conscience of the nurse (Rushton, 2018). As a result, the outcome may either be moral resilience or moral distress (Rushton, 2018). Previous studies have largely focused on moral distress as an outcome, but Rushton and colleagues have been the few researchers to focus on moral resilience or the positive response of the nurse.

Although this framework has not been used to guide other research, it fits well with the proposed study because the COVID-19 pandemic has created unique stressors and moral adversity for ICU nurses. The rapid emergence of the pandemic introduced a sudden event with potential negative effects on the nurse through frequent use of advanced life support measures on

those with little chance for meaningful recovery. The distress that nurses face in the ICU during the COVID-19 pandemic is related to ethical issues such as “the safety of nurses, patients, colleagues, and families; the allocation of scarce resources; and the changing nature of nurses’ relationships with patients and families” (Morley et al., 2020, p. 35). This framework depicts how nurses experience moral distress under adverse conditions. Nurses at the frontline during a pandemic are likely to experience moral distress, and moral resilience is likely to be present to help the nurses during these challenging times (Turale et al., 2020). We will also explore the relationship between moral distress and moral resilience with the intention to advance the science on moral resilience.

Moral Distress

Prior to a shift toward moral resilience, moral distress was heavily studied from the time it was first discussed by Jameton in 1984 (see Appendix B). Moral distress is described as a psychological response to situations that are morally based, and the effects can be detrimental and cause pain and distress (Jameton, 1984; Jameton, 1993; Nathaniel, 2006; Wilkinson, 1989). The study of moral distress is important in nursing because nurses believe they are obliged to act in good moral conscience when caring for patients (Pavlish et al., 2019). Studies suggest that nurses experience higher degree of moral distress than their physician colleagues (Austin et al., 2016). Additionally, moral distress and burnout are correlated (Austin et al., 2016). An increase in moral distress typically occurs six to ten years into a nurse’s career and burnout often follows approximately eleven to twenty years into a career (Austin et al., 2016). While experience may be beneficial, moral distress was found to increase over time (Rushton et al., 2015). The negative effects of moral distress, burnout, and compassion fatigue leads to higher turnover rates (Austin et al., 2016; Henrich et al., 2017). Nurses are more likely to leave the profession when they are

repeatedly exposed to scenarios that caused them moral distress (Dodek et al., 2016). The issues that cause nurses moral distress are often related to (a) lack of autonomy and control, (b) workplace environment, (c) ethical climate, (d) gaps in care, (e) financial issues, and (f) controversial end-of-life care discussions (Altaker et al., 2018; Dodek et al., 2016; Dodek et al., 2019; Henrich et al., 2016; Pavlish et al., 2019). Ethical climate describes the handling of ethical issues that arise in the ICU setting (Altaker et al., 2018).

The presence of moral distress creates feelings of frustration and oppression that may be alleviated by altering the power dynamics and empowering nurses (Bevan & Emerson, 2020; Henrich et al., 2017). Other solutions that have been found to help alleviate moral distress include being transparent and addressing the presence of moral distress within the staff, providing peer to peer and upper management support, and debriefing after morally distressing situations (Colville et al., 2019; Henrich et al., 2017; Browning et al., 2018).

Moral Resilience

Moral resilience has become a phenomenon that requires further empirical research and clarification (see Appendix A). Moral resilience was first discussed by Oser and Reichenback in 2005. There are varying definitions of moral resilience that suggest that it is either a trait or a reaction to situations that disturb the moral beliefs of a person (Lachman, 2016; Lutzen & Ewalds-Kvist, 2013; Monteverde, 2016; Rushton, 2016; Sala Defilippis et al., 2019a).

There have been interventions proposed to foster moral resilience, such as mindfulness training (Rushton, 2018), but few empirical studies have been found to support these interventions. In a review of the empirical research on moral resilience, there were many editorial and commentaries on moral resilience, but only a handful of studies (see Appendix A). The few studies available have focused on college nursing students (Gibson et al., 2020), health

professionals (Holtz et al., 2017), and nurses in both critical and acute care settings (Rushton et al., 2015; Sala Defilippis et al., 2019b).

Among college nursing students, older age ($r=0.314$, $p=0.04$) was related to moral resilience, and second career nursing students ($x^2= 28$, $p=0.02$) had greater moral resilience compared with first degree students (Gibson et al., 2020). Although there were some students that experienced moral distress, this did not influence students to leave the nursing major (Gibson et al., 2020). In high acuity populations (i.e. pediatrics, neonates, oncology, and critical care), Rushton and colleagues (2015) confirmed that nurses who care for high acuity patients are at risk for burnout. However, the researchers found that moral distress and burnout could be reduced if they “reconnect to the meaning of their work” (Rushton et al., 2015, p. 418). Nurses who were morally resilient used personal practices and positivity to cope with the stress from work (Rushton et al., 2015).

Holtz et al. (2017) and Sala Defilippis et al. (2019b) further clarified the concept of moral resilience. Holtz et al. (2017) identified the 5 concepts of moral resilience from the perspectives of healthcare professionals. Sala Defilippis et al. (2019b) created a grounded theory of moral resilience through “(harmonized) connectedness” (p. 5). The two studies differ in their clarification of moral resilience because Holtz et al. (2017) described the qualities of moral resilience as personal and relational integrity, buoyancy, self-regulation, self-stewardship, and moral efficacy. Sala Defilippis et al. (2019b) suggest that moral resilience is an iterative process that critical care nurses experience daily, both at work and in their private life. They describe moral resilience as a sense of awareness and connection that the nurses feel between themselves and the surrounding environment, which assists them when experiencing a situation that challenges their moral beliefs.

Global Pandemic

As the SARS-CoV-2 virus has spread to different parts of the world, those countries already affected by it have published empirical studies, editorials, and commentaries about the effects on healthcare workers (see Appendix C). Morley et al. (2020) discussed the five different types of moral distress that caregivers experienced during the COVID-19 pandemic, which laid the groundwork for further investigation. The five different types were moral constraint, moral uncertainty, moral dilemma, moral conflict, and moral tension (Morley et al., 2020) (*with no mention of moral resilience*). Other papers have discussed the psychological impact, changes, and physical symptoms experienced by healthcare workers (Morley et al., 2020). In Italy, Barelo et al. (2020) described the negative impact of taking care of patients with COVID-19. The pandemic affected the psychological health of healthcare workers and the responses to the situation manifested in physical symptoms. There were feelings of emotional exhaustion, depersonalization, and few reported fulfillment from taking care of patients with COVID-19. The healthcare workers reported feelings of burnout and more nurses reported higher exhaustion emotionally and physically. The physical symptoms experienced by healthcare professionals included “increased irritability, change in food habits, difficulty falling asleep, and muscle tension” (Barelo et al., 2020, p. 1). In Singapore and India, Chew and colleagues (2020) reported on the symptoms experienced by healthcare workers. They described psychological symptoms such as anxiety, depression, and stress, as well as physical symptoms such as headache, throat pain, anxiety, tiredness, and difficulty sleeping (Chew et al., 2020). They also reported that there were no differences in symptoms by gender.

Difficulty sleeping and sleep disturbances were also found in a study that explored distress and moral injury (Hines et al., 2020). In Hines et al. (2020), moral injury was addressed

as an outcome of the COVID-19 surge. Moral injury was primarily focused in those who experienced traumatic events during wartime, but the term is broadening to other areas such as those in healthcare (Hines et al., 2020; Griffin et al., 2019). Moral injury referred to those who experience or commit “moral violations” and led to negative symptoms that affect their social, religious, spiritual, or biological “domains” (Griffin et al., 2019, p. 355). At the beginning of the surge, healthcare workers who spent more time in the hospital were at a greater risk for moral injury, distress, and sleep disturbances (Hines et al., 2020). Those providing direct care to patients with COVID-19 had greater experiences of fear, anxiety, and depression (Lu et al., 2020). Those working in dedicated COVID-19 units felt isolated from others at work and home and were afraid of getting the infection and transmitting it to others. They also described fears of running out of supplies and personal protective equipment, lamenting that the pandemic would continue to surge and not return to normal, and feelings of frustration with personal failures at work (Lu et al., 2020).

The psychological impact on healthcare workers did not occur suddenly, but occurred over time. In the early phase of the pandemic, there were negative feelings as well as feelings of uncertainty (Sun et al., 2020; Zhang et al., 2020). As time progressed, feelings ranged from emotional exhaustion to coping and adapting with the stress (Sun et al., 2020; Zhang et al., 2020). Towards the later part of the surge, positive and negative emotions were still present (Sun et al., 2020) and for some, there was an emergence of newfound energy from previous feelings of exhaustion (Zhang et al., 2020).

In summary, the COVID-19 pandemic has been a major challenge for nurses working in acute and critical care environments throughout the world. Nurses already face high levels of moral distress in their work, including dealing with end-of-life care and providing comfort to

patients that are isolated during their time in the ICU. Preliminary data suggest that the pandemic has the potential to increase moral distress among critical care nurses. How nurses respond to this moral distress and whether moral resilience is present in the face of a pandemic is an important area of inquiry.

Method

Design

The study will use a qualitative descriptive design (Sandelowski, 2000). Qualitative description was selected because it describes the who, what, how, and why of events, experiences, and perspectives in everyday terms (Sullivan-Bolyai et al., 2005) and has the potential to advance our understanding of moral resilience. Individual interviews will be conducted virtually to comply with social distancing recommendations and to reduce the potential risk of exposure between the researcher and the nurse participants who all continue to care for patients with COVID-19. The interviews will be audio-recorded using two recorders.

Sampling and Setting

Purposive sampling will be used to recruit between 15 and 20 intensive care unit (ICU) registered nurses (RN) who have provided direct care to patients with COVID-19. Snowball sampling techniques will be used also. The final sample size will be based on reaching data saturation.

Inclusion Criteria

Participants will be currently employed as registered nurses, age 18 or older, practicing in an ICU, experience providing direct care to patients with COVID-19, ability to speak in English, provide verbal informed consent, and access to Zoom by phone or internet.

Exclusion Criteria

Nurses who work in the same ICU as the PI and those who have not provided direct care to patients with COVID-19 will be excluded.

Setting

The setting for the proposed study is a tertiary care facility and academic medical center in the Northeast part of the United States (US). The setting is a Level 1 trauma center and houses five adult ICUs at one location and two adult ICUs at another location. During the peak of the COVID-19 pandemic, there were three ICUs that were dedicated to caring for patients with COVID-19 and two at another location. During the COVID-19 peak, the rate of patients with COVID-19 in the ICUs doubled every three to four days, with an average census of 20 to 25 patients with COVID-19 in the ICUs, at the proposed study setting (Foskett Jr., 2020).

Procedures

All procedures will be reviewed and approved by the site Institutional Review Board (IRB). Participants will be informed that this study is voluntary and that the interviews will last approximately one hour. Prior to the start of the study, verbal informed consent will be obtained from the participants. A fact sheet will be emailed to all participants. For any participants that experience psychological distress from the interview, the interview will be terminated, and a referral to Employee Assistance Program and WorkLife Services Benefit will be made available to participants. Virtual interviews will be conducted using a password protected Zoom account that is encrypted and secure. The interviews will be scheduled based on the availability of the participants. The interviews will be audio-recorded using two devices. Participants will be assigned a unique study identification number and the final transcripts will only contain this number. Names or other identifiers will not be used on the audio recordings or the transcripts.

Recruitment

The chief nursing officer (CNO) at the study site has approved the plan to recruit ICU nurses for this study. The PI will email the nurse managers of the ICU and discuss the study in a planned Zoom meeting. After the meeting, the nurse manager may allow the PI to attend a staff meeting to discuss about the study, and the nurse managers send an email to all ICU nursing staff informing them of the study. Nurses will then contact the PI to receive an explanation of the study. Study flyers will also be posted in the break rooms, with the permission of the nurse manager, to recruit participants. In addition, nurses who participate in the study will be asked to refer other nurses they know, who work in the ICUs, and who have taken care of patients with COVID-19. Participants will receive a \$25 gift card to thank them for their participation after completion of the virtual interview.

Data Collection

A semi-structured interview guide (see Appendix D), incorporating questions based on the conceptual framework and study aims, will be used to collect nurses' experiences of moral distress and resilience during the COVID-19 pandemic. Each interview will last approximately one hour. Demographic data will be collected at the end of the interview. The demographic data will include gender, age, race, years of experience, highest degree completed, number of patients with COVID-19 cared for, surge timeline of either first, second, or both surges, average hours of work during the surge, and months caring for patients with COVID-19.

Field notes will also be collected and will include participant observation and what the PI observed, did, and felt during the interviews. A word document will be created to document these field notes. An audit trail will be kept throughout the study to ensure the trustworthiness of the data (Lincoln & Guba, 1985).

Data Management

Interviews will be transcribed by a professional transcriptionist. Each transcription will be reviewed along with the audio recording by the PI for accuracy and missing information. All data will be uploaded to an encrypted research drive. The research drive is secure, protected, backed up, password restricted, and firewall protected. Access to this drive will be available to the PI and the 3 dissertation committee members only. Audio recordings will be destroyed after the completion of data analysis and all other data will be retained for at least three years and then destroyed.

Data Analysis

Descriptive statistics will be used to describe the sample by gender, age, race, years of experience, highest degree completed, number of patients with COVID-19 cared for, surge timeline of either first, second, or both surges, average hours of work during the surge, and months caring for patients with COVID-19. Data analysis will begin after the completion of the first interview and proceeds in an iterative fashion. A written summary of the interview will be completed first.

Data will be analyzed following Braun and Clarke's (2006) thematic analysis process.

The thematic analysis process is as follows:

1. The first phase begins with immersing oneself in the data. It involves multiple and active reading of the data that entails jotting down notes and notating ideas, coding, and patterns.
2. The second phase of thematic analysis involves the coding of the transcript. The transcript is reviewed, data are coded, and grouped together to reveal initial patterns and themes. The technical organization of the data will be performed using a Word document.

In the margin column of each transcript, a comment box will highlight the code related to the conceptual framework. The coding will follow the theoretical coding approach

3. The third phase involves two parts where the codes are analyzed and organized into themes. In this phase, the PI will examine the codes and begin to visualize connections, with the help of diagrams, and organize the themes into main themes or sub themes. After the transcript has been coded, a separate word document will be used to group all the themes separately. Each word document will represent a theme. Once the quotes from the participants are reread to represent a theme, the document will be synthesized to reflect the main theme.
4. If there are any codes that do not fall into a certain theme, then the data can be either re-analyzed or grouped into a separate pile of non-fitting themes, which are further explored.
5. The fourth phase involves refining and tailoring the themes that have emerged from phase 3. The codes are reviewed to ensure a clear and cohesive whole.
6. In phase five of the process, the themes are further reviewed, important quotations are identified, and the themes are named and the final analysis is written and reviewed.

Trustworthiness

To support trustworthiness of the findings, Lincoln and Guba's (1985) procedures for establishing credibility, dependability, transferability, and confirmability will be followed. The interviews will be transcribed verbatim by a transcriptionist. After the interviews are completed, the transcript and audiotapes will be reviewed for accuracy. On an ongoing basis, the PI will confer with a peer debriefer (dissertation Chair member) to review the transcripts, codes, themes, plans for changing the interview guide questions, and sampling strategies. A reflexive journal

will be maintained that will serve as an audit trail to make notes of the decisions and changes during data collection and analysis. Data will be represented in a transparent way to include the social context and culture as recommended by Graneheim and Lundman (2004). Data elements will include participant observations (albeit limited due to virtual interviews), interview transcripts, field notes, and the reflexive journal. Member checks will be conducted with at least 3 study participants to enhance credibility of the findings. The transferability of the study findings will be enhanced through the use of thick rich description.

Reflexivity

For reflexivity, a reflective journal will be utilized to document personal biases and to be aware of one-self and feelings so that personal biases are not reflected in the research. The PI is a critical care nurse and has experience caring for adults with COVID-19. This experience involved a six-month redeployment to an ICU dedicated to patients with COVID-19. During this time, the PI faced similar issues that many ICU nurses experienced such as shortages of personal protective equipment, risk of exposure to self and others, and physical symptoms such as insomnia and anxiety. There were also feelings of the unknown because of the novel procedures and treatments for patients with COVID-19 that were not familiar prior to the pandemic. The personal experiences of the PI must not be reflected or influence the participant's recounts of their experience. It is important to be aware of this and the PI's personal experiences throughout the interview and analysis processes. To address this self-awareness, the PI will engage in debriefing with committee members throughout the process and engage in self-care such as physical activities, journaling, and communicating openly with committee members.

Conclusion

Nurses are critical to the successful care of persons with COVID-19. Ensuring ways to reduce moral distress and enhance positive ways of coping is essential to maintaining a healthy nursing workforce. Identifying the experiences of nurses as they face this pandemic is fundamental to the development of interventions that foster moral resilience in the face of this and future pandemics.

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Table 1

Definitions of Moral Distress and Moral Resilience

Concept	Citation	Definition
Moral Distress	Jameton, A. (1984). <i>Nursing practice: The ethical issues</i> . Prentice Hall.	“Experience of knowing the right thing to do while being in a situation in which it is nearly impossible to do it” p.**need page number
	Jameton, A. (1993). Dilemmas of moral distress : Moral responsibility and nursing practice. <i>AWHONNS Clinical Issues Perinatal Womens Health Nursing</i> , 4(4), 542-551	“Moral distress is the psychological disequilibrium, negative feeling state, and suffering experienced when nurses makes a moral decision and then either do not or feel that they cannot follow through with the chosen action because of institutional constraints.” **Need citation**
	Nathaniel, A. K. (2006). Moral reckoning in nursing. <i>Western Journal of Nursing Research</i> , 28(4), 419-438. Doi: 10.1177/0193945905284727	“Moral distress is pain affecting the mind, the body, or relationships that results from a patient care situation in which the nurse is aware of a moral problem, acknowledges moral responsibility, and makes a moral judgment about the correct action, yet, as a result of real or perceived constraints, participates, either by act or omission, in a manner he or she perceives to be morally wrong” p. 421 (Jameton, 1984; Nathaniel, 2004; Wilkinson, 1987-88)
	Wilkinson, J.M. (1989). Moral distress : A labor and delivery nurse’s experience. <i>Journal of Obstetric, Gynecologic & Neonatal Nursing</i> . https://onlinelibrary-wiley-com.umassmed.idm.oclc.org/doi/epdf/10.1111/j.1552-6909.1989.tb00503.x	“Nurses tend to identify as moral distress any painful feelings they have in patient-care situations. However, moral distress is more than just painful feelings; it is a particular kind of distress. In addition to feelings, moral distress includes situational, cognitive, and action dimensions.” p. 514
Moral Resilience	Lachman, V.D. (2016). Ethics, law, and policy. Moral resilience : Managing and preventing moral distress and moral residue. <i>MEDSURG Nursing</i> , 25(2), 121-124.	“The ability and willingness to speak and take right and good action in the face of an adversity that is moral/ethical in nature” p. 122

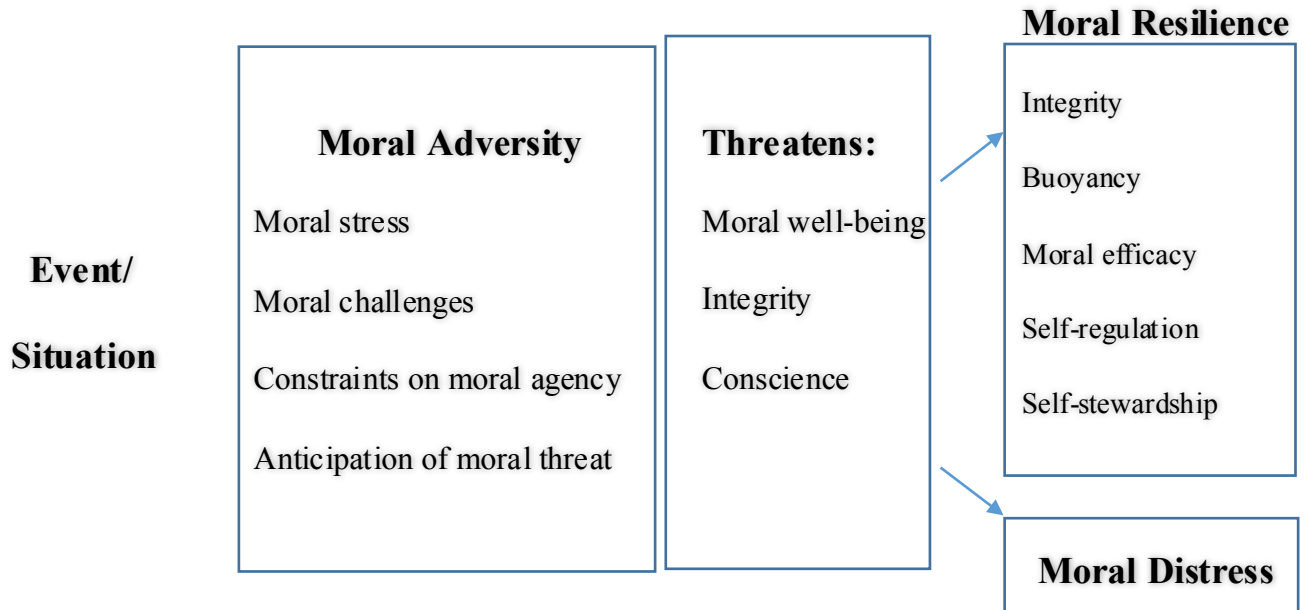
	<p>Lutzen, K., & Ewalds-Kvist, B. (2013) Moral distress and its interconnection with moral sensitivity and moral resilience: Viewed from the philosophy of viktor e. frankl. <i>Bioethical Inquiry</i>, 10, 317-324. Doi: 10.1007/s11673-013-9469-0</p>	<p>“Defined as distinctive sense that life is meaningful under every condition” p. 320</p>
	<p>Monteverde, S. (2016). Caring for tomorrow’s workforce: Moral resilience and healthcare ethics education. <i>Nursing Ethics</i>, 23(1), 104-116. https://doi.org/10.1177/0969733014557140</p>	<p>“A reduction of moral distress in a given axis of time measured by a validated tool...understood as the capability to ‘name’ and ‘frame’ ethical issues” (**Need access)</p>
	<p>Oser, F.K., & Reichenbach, R. (2005). <i>Moral Resilience-The Unhappy Moralists</i>. In W. Edelstein, & G. Nunner-Winkler (Eds.), <i>Advances in psychology. Morality in context</i> (pp. 204-224). Elsevier. https://doi.org/10.1016/S0166-4115(05)80036-6</p>	<p>“Moral resilience means to be good (and prove one’s integrity and character) under conditions of risk.” (**Need access)</p>
	<p>Rushton, C. H. (2016). Moral resilience: A capacity for navigating moral distress in critical care. <i>AACN Advanced Critical Care</i>, 27(1), 111-119. http://dx.doi.org/10.4037/aacnacc2016275</p>	<p>“Moral resilience is defined as the capacity of an individual to sustain or restore their integrity in response to moral complexity, confusion, distress, or setbacks” p. 112</p>
	<p>Sala Defilippis, T.M.L., Curtis, K., & Gallagher, A. (2019). Conceptualising moral resilience for nursing practice. <i>Nursing Inquiry</i>, 26, 1-7. https://doi.org/10.1111/nin.12291</p>	<p>“within nursing practice, the virtue of moral resilience is the character trait, which allows nurses to remain open for compromises with themselves and with the given situation without compromising their own moral integrity” p. 5</p>

Table 2*Moral Resilience Concepts*

Concept	Definition
Integrity	Integrity includes the idea of both personal and relational integrity. Personal integrity is the capacity to have personal beliefs and values that can be uphold during difficult times (Holtz, Heinze, Rushton, Bunting, & Bunting, 2018); while relational integrity is the ability to be aware of one's own believes while not allowing these beliefs to interfere with the beliefs and values of others.
Buoyancy	Buoyancy is the flexibility and durability to encounter an ethical situation that can cause distress and still move forward (Holtz, Heinze, Rushton, Bunting, & Bunting, 2018).
Moral Efficacy	Moral efficacy is advocating and having the voice to state an opinion that may not be accepted by others (Holtz, Heinze, Rushton, Bunting, & Bunting, 2018).
Self-Regulation	Self-regulation is the ability to control one's emotions and reactions to distressing situations. When faced with a situation that can cause distress, the person is able to control their emotional and psychological responses (Holtz, Heinze, Rushton, Bunting, & Bunting, 2018).
Self-Stewardship	Self-stewardship is the ability to keep self-care as top priority while the person can care for others (Holtz, Heinze, Rushton, Bunting, & Bunting, 2018). The person is in tune with self and able to recognize personal strengths and limitations.

Figure 1

Adaptation of Conceptual Framework of Moral Resilience



Appendix A

Moral Resilience Matrix Table

Citation	Purpose	Method	Sample	Results	Implications for Study
Gibson, E., Duke, G., & Alfred, D. (2020). Exploring the relationships among moral distress, moral courage, and moral resilience in undergraduate nursing students. <i>Journal of Nursing Education</i> , 59(7), 392-395.	To investigate “the relationships among moral distress, moral courage, and moral resilience in undergraduate nursing students” p. 392	- Descriptive correlational design -Use of these 3 instruments: Moral Courage Scale for Physicians, Connor-Davidson Resilience Scale, and Moral Distress	45 Nursing students at a university	-higher moral resilience and higher moral courage did not mean less moral distress - relationship between moral resilience and moral courage that was statistically significant -positive correlation between age and moral resilience, moral resilience higher in students that were second career nursing students	-Used Corley’s Theory of Moral Distress to guide the study -positive correlation between age and moral resilience, moral resilience higher in students that were second career nursing students -presence of moral distress does not mean that the students intend to leave the major
Holtz, H., Heinze, K., Rushton, C, Bunting, A., & Bunting, G.L. (2017). Interprofessionals' definitions of moral resilience. <i>Journal of</i>	“To describe common characteristics and themes of	Qualitative descriptive study	184 interprofessional clinicians and 23 non-	3 primary themes: personal integrity, relational integrity,	“Participants revealed qualities and skills that enable one to be

<p><i>Clinical Nursing</i>, 27, 488-494. Doi: 10.1111/jocn.13989</p>	<p>the concept of moral resilience as reported by interprofessional clinicians in health care” (p. 489)</p>		<p>healthcare clinicians</p>	<p>and buoyancy 3 subthemes: self-regulation, self-stewardship, and moral efficacy</p>	<p>morally resilient” pg. 492 “First content analysis examining interprofessionals’ definitions of moral resilience” p. 492</p>
<p>Rushton, C.H., Batcheller, J., Schroeder, K., & Donohue, P. (2015). Burnout and resilience among nurses practicing in high-intensity settings. <i>American Journal of Critical Care</i>, 24(5), 412-422</p>	<p>“Enhance nurses’ resilience while improving retention and reducing turnover through an innovative educational intervention” (p. 413)</p>	<p>Cross-sectional survey</p>	<p>“High-stress nursing cohort” -2 pediatric/neonatal -2 oncology -2 adult critical care -114 nurses (p. 415)</p>	<p>P. 415 -burnout scores did not differ between the different specialties -exhaustion and depersonalization greater -moral distress higher in critical care -nurses 3-10 years with higher score of emotional exhaustion and depersonalization -“Moral distress was a significant predictor of all 3 aspects of burnout...g</p>	<p>-“Nurses in high stress areas in this study scored high on measures of burnout” p. 417 -Support previous findings that nurses who work in high-risk areas are increased risk for burnout -“Resilient nurses identified related factors of spirituality and optimism as resources they draw upon to cope with their stressful work</p>

				reater resilience protected nurses from emotional exhaustion” p. 417	environment s” p. 417 -“Helping nurses reconnect to the meaning of their work may reduce moral distress and burnout” p. 418 -“Moral distress in the nurses in our sample increased with more years of experience in nursing, in what appears to be a dose response” p. 418
Sala Defilippis, T.M.L., Curtis, K., & Gallagher, A. (2019). Moral resilience through harmonized connectedness in intensive care nursing: A grounded theory study. <i>Intensive & Critical Care Nursing</i> , 57. https://doi.org/10.1016/j.iccn.2019.102785	-“To examine the main concerns among intensive care nurses in respect of ethical practice” -“To conceptualise the term moral resilience” (p. 2)	Grounded Theory	-Southern Switzerland -5 intensive care units -16 nurses interviewed from Aug. 2015 to Mar. 2016	3 emerging categories: -awareness and self-awareness -respect and appreciation -moral life - relationship between all 3: harmonizing connectedness	“Nurses strive to achieve harmony and maintain connectedness” (p. 5)

Appendix B

Moral Distress Matrix Table

Citation	Purpose	Method	Sample	Results	Implications for Study
Altaker, K. W., Howie-Esquivel, J., & Cataldo, J. K. (2018). Relationships among palliative care, ethical climate, empowerment, and moral distress in intensive care unit nurse. <i>American Journal of Critical Care, 27</i> (4), p. 295-302. Doi: https://doi.org/10.4037/ajcc2018252	Compare relationship between “moral distress, perceived psychological empowerment, and access to palliative care”	Cross-sectional survey that entailed MDS-R, Hospital Ethical Climate Survey (HEC), psychological empowerment instrument, and questionnaire	235 critical care nurses	-”moral distress negatively correlated with empowerment” p. 298 -”access to full palliative care team reported higher levels of moral distress” p. 298 -more beds r/t higher MD	-moral distress r/t ethical climate
Austin, C.L., Saylor, R., & Finley, P.J. (2016). Moral distress in physicians and nurses: Impact on professional quality of life and turnover. <i>Psychological Trauma: Theory, Research, Practice, and Policy, 9</i> (4), 399-406. http://dx.doi.org/10.1037/tra000201	“To investigate moral distress and turnover intent as related to professional quality of life in physicians and nurses”	-Self-administered surveys: MDS-R and Professional Quality of Life Scales - Subscales: compassion fatigue, burnout	329 participants: 113 doctors, 211 nurses, 5 midlevel (NP and PA)	-presence of MD with low in fatigue and higher satisfaction scores -nurses and burnout higher than doctors -highest causing moral distress: following family’s wishes when not in the best interest of patient and extensive	-Nurses have higher presence of moral distress and burnout than doctors -high moral distress 6-10 years into career, burnout at 11-20 years -nurses have inverse relationship with compassion fatigue that increases

				<p>life-saving actions that will prolong death</p> <p>-nurses who have left or intend to leave higher than doctors</p> <p>-highest level of moral distress: 6-10 years of experience and burnout: 11-20 years</p> <p>-nurses with higher critical patient load: higher in moral distress and secondary traumatic stress</p>	<p>throughout career</p> <p>-high levels of moral distress, burnout, and compassion fatigue associated with high turnover intent</p>
<p>Bevan, N. A., & Emerson, A. M. (2020). Freirean conscientization with critical care nurses to reduce moral distress and increase perceived empowerment: A pilot study. <i>Advances in Nursing Science, 43(3), 131-146</i>. doi: 10.1097/ANS.0000000000000307</p>	<p>-”first interventional study to address the role of oppression in the development of moral distress in nursing”</p>	<p>-Mixed-methods with pre/post design</p> <p>- Qualitative: journal, interview, exercises, semistructured interviews</p> <p>- Quantitative: MDS-R (moral distress)</p>	<p>-13 critical care nurse from Midwest</p>	<p>-sources of moral distress: “futility of care, aggressive care against patients’ wishes, and unsafe care were prevalent” p. 137</p> <p>-”anguish of disempowerment—an experience with dimensions that, for her,</p>	<p>-moral distress as “group oppression” and to relieve it is based in changing power dynamics</p>

		<p>scale-revised) and PES (psychological empowerment scale)</p> <p>- conditions of work effectiveness questionnaire-II</p>		<p>were physical, psychological, even subconscious” p. 137</p> <p>- “power struggles between parties involved in decision making about patient Care” p. 137</p> <p>- “spending a lot of time and energy trying to assert moral agency in situations that seemed to go on and on and over which the nurse ultimately had little power” p.138</p> <p>-”Moral distress frequency and overall scores decreased significantly following the conscientization intervention, while counter to our expectations moral distress</p>	
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				intensity scores increased significantly. ” p. 144	
Browning, E.D., & Cruz, J.S. (2018). Reflective debriefing: A social work intervention addressing moral distress among icu nurses. <i>Journal of Social Work in End-Of-Life & Palliative Care</i> , 14(1), 44-72. https://doi.org/10.1080/15524256.2018.1437588	-To pilot the intervention, Reflective Debriefing, in alleviating moral distress among nurses in an ICU	-10-question guided intervention, including reflective and educational components -MDS-R pre and post test 6 months apart	Convenience sampling of 43 ICU nurses	-low to moderate levels of moral distress -3 items causing moral distress: 1) family wishes to continue life support against patient’s best wishes, 2) initiate extensive life-saving actions when I think they only prolong death, 3) continue to participate in care for hopelessly ill person who is being sustained on a ventilator, when no one will make decision to withdraw support (pg. 57) -high intensity and high frequency:	-lower moral distress score correlated with improvement with the intervention, not significant, but lower overall -nurses wanted further opportunities for moral distress debriefing

				following family's wishes to continue life support against patient's best interest	
Colville, G.A., Dawson, D., Rabinthiran, S., Chaudry-Dale, Z., & Perkins-Porras, L. (2019). A survey of moral distress in staff working in intensive care in the UK. <i>Journal of Intensive Care Society</i> , 20(3), 196-203. Doi: 10.1177/1751143718787753	-Utilize Moral Distress Scale-Revised (MDS-R) "to establish levels of moral distress in a sample of physicians and nurses working in adult ICU settings in the United Kingdom" pg.197 -“examine associations between MDS-R scores and socio-demographic factors, scores on a brief mental health screening instrument and	-Cross-sectional survey over 2 four-week periods in General Intensive Care Unit and Neuro-Intensive Care Unit and Cardiothoracic Intensive Care Unit	-Out of 408, 190 responded -nurses and physicians	-No difference in MDS-R score between units, pg. 198 -highest intensity ratings: scarce resources and end of life care, pg. 198 -highest frequency: end of life care and communication issues, pg. 198 -most distressing: end of life care r/t futility -Quitting: 1) left previous job, 2) considered leaving, 3) considered leaving b/c of moral distress -Moral distress scores associated with leaving	-Employers should address moral distress with their staff to prevent attrition

	intention to leave the job” pg. 197			job and depression	
Dodek, P.M., Wong, H., Norena, M., Ayas, N., Reynolds, S.C., Keenan, S.P., Hamric, A., Rodney, P., Stewart, M., Alden, L. (2016). Moral distress in intensive care unit professionals is associated with profession, age, and years of experience. <i>Journal of Critical Care</i> , 31, 178-182. http://dx.doi.org/10.1016/j.jcra.2015.10.011	“To determine which demographic characteristics are associated with moral distress in intensive care unit (ICU) professionals”	MDS-R survey	1390 participants: 870 nurses, 452 other health professionals, 68 doctors	-Nurses had the highest moral distress scores when compared to other healthcare professionals -highest moral distress score was related to cost control, end-of-life care, prolong of inevitable -age inversely associated with moral distress -years of experience associated with moral distress -moral distress r/t intent to leave profession (current or past)	-exposure and repeated exposure to morally distressing situations increase moral distress -More likely to leave profession -Issues related to cost and end-of-life care
Dodek, P. M., Norena, M., Ayas, N., & Wong, H. (2019). Moral distress is associated with general workplace distress in intensive care unit personnel. <i>Journal of Critical Care</i> , 50, 122-125.	“To assess association between moral distress and general workplace	-Cross-sectional -MDS survey and Job Content Questionnaire	13 ICUs, health professionals, 1390 participants:	-Nurses and other health professionals higher moral distress than physicians -“moral distress	-Increased generalizability b/c tertiary-care and community settings

<p>https://doi.org/10.1016/j.jcrc.2018.11.030</p>	<p>distress in ICU personnel” pg. 122</p>		<p>870 nurses, 452 other professionals, 68 physicians</p>	<p>causes general workplace distress, general workplace distress causes moral distress, or that there is a common cause of both moral distress and general workplace distress” pg. 123</p>	<p>-moral distress associated with workplace distress</p>
<p>Henrich, N.J., Dodek, P.M., Alden, L., Keenan, S.P., Reynolds, S., & Rodney, P. (2016). Causes of moral distress in the intensive care unit: A qualitative study. <i>Journal of Critical Care, 35</i>, 57-62. http://dx.doi.org/10.1016/j.jcrc.2016.04.033</p>	<p>“to participate in focus groups to address causes and consequences of moral distress” pg. 57</p>	<p>Focus groups</p>	<p>10 focus groups and 4 interviews that included physicians, nurses, and other health professionals, and clinical nurse leaders</p>	<p>-Quality of care: concerns about other providers’ care, teaching vs. optimal care, lack of end-of-life conversations, pain management -Amount of care provided: too much care provided (physician and family), too little care provided -inconsistent care plans -poor communication</p>	<p>-Causes of moral distress differed between ICUs, “solutions to moral distress should consider specific causes within each ICU”-pg. 61 -nurses: lack of autonomy and control</p>

				<ul style="list-style-type: none"> -end-of-life decision making -interactions and conflicts with families - recommendations for patients ignored -lack of support from management and resources 	
<p>Henrich, N.J., Dodek, P.M., Gladstone, E., Alden, L., Keenan, S.P., Reynolds, S., & Rodney, P. (2017). Consequences of moral distress in the intensive care unit: A qualitative study. <i>American Journal of Critical Care</i>, 26(4), e48-e57. https://doi.org/10.4037/ajcc2017786</p>	<p>-To “describe consequences of moral distress from the perspective of ICU professionals” pg. e48</p>	<p>3 focus groups separated by profession: physicians, nurses, and other healthcare workers</p>	<p>10 focus groups of 19 nurses, 4 clinical leaders, 20 other health professionals, and 13 physicians</p>	<ul style="list-style-type: none"> -Emotional response to morally distressing situations: frustration, embarrassed, worthless -Coping: debriefing, conversing with other healthcare professionals, compartmentalizing -Alleviation of emotions: debriefing, extracurricular activities, time spent outside of hospital -Lack of moral distress: didn't characterize situations as 	<ul style="list-style-type: none"> -Most felt frustrated -Debriefing to help with morally distressing situations and getting support from peers and upper management -More likely to quit

				<p>moral distress</p> <ul style="list-style-type: none"> - Exacerbation: non-supportive coworkers -Impact on care: moral distressing situations demand more time, avoidance of situation, become jaded, diminish assertion in future experiences -Positive impact: more vigilant, focused, attentive, compassionate -Desire to quit: feel like that they caused the situation, 	
<p>Morley, G., Bradbury-Jones, C, & Ives, J. (2019). What is 'moral distress' in nursing? A feminist empirical bioethics study. <i>Nursing Ethics</i>, 27(5), 297-314. https://doi.org/10.1177/0969733019874492</p>	<p>“to develop theoretical conceptualization of moral distress”</p>	<p>Literature review</p> <ul style="list-style-type: none"> -feminist interpretive phenomenology 	<p>Purposive sampling of 30 critical care nurses</p>	<p>Nurse reported:</p> <ul style="list-style-type: none"> - psychological distress -moral event -moral constraint -moral tension -moral conflict 	<p>-distress encompasses not just one emotion, but many</p> <ul style="list-style-type: none"> -findings related to conceptual framework of Rushton -”further clarified

				-moral dilemma -moral uncertainty	definition of 'constraint' such as experience of moral event/psychological distress/direct causal relation between them"
Pavlish, C. L., Brown-Saltzman, K., Raho, J. A., & Chen, B. (2019). A national survey on moral obligations in critical care. <i>American Journal of Critical Care</i> , 28(3), 183-192	"To explore clinicians' perceptions about ethically difficult situations and discipline-specific and share moral responsibilities in clinical practice"	Cross-sectional survey	435 critical care: 40 physicians, 70 nurse leaders, 325 nurses	"Most disturbing/frequent ethical situations" -end of life decisions, nonbeneficial/harmful to patient, and decisions made by surrogate that went against the patients wishes -moral obligation of nurses tied with dependence on physicians to have early discussions about prognosis/treatment -poor communication between members of the team, "hierarchical power, team	- "nurses believed they have a moral obligation to participate in team discussions about treatments, code status, and goals of care" - "role ambiguity may lead to gaps in care" -

				or family conflict”	
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Appendix C

COVID-19 Pandemic Matrix Table

Citation	Purpose	Method	Sample	Results	Implications
<p>Barello, S., Palamenghi, L., & Graffigna, G. (2020). Burnout and somatic symptoms among frontline healthcare professionals at the peak of the Italian covid-19 pandemic. <i>Psychiatry Research</i>. https://doi.org/10.1016/j.psychres.2020.113129</p>	<p>Describe the burnout and any additional physical symptoms of healthcare workers taking care of patients with covid-19 in Italy</p>	<p>Cross-sectional study; online questionnaire Surveys used: Maslach Burnout Inventory (MBI)</p>	<p>Convenience sampling of 1153 healthcare professionals, but only 376 had direct care of patients with covid-19</p>	<p>In the MBI survey: 33%: emotional exhaustion 25%: depersonalization 15%: personal gratification</p> <p>Physical symptoms: “increased irritability, change in food habits, difficulty falling asleep, and muscle tension”</p> <p>“Higher levels of burnout” associated with “more frequent experience of symptoms” as well as “higher levels of Emotional exhaustion and</p>	<p>The pandemic can affect not only psychologically, but the response to the situation can manifest in physical symptoms</p>

				depersonalization”	
				Gender and professional roles: Women score higher than male in emotional exhaustion and nurses experience more symptoms than physicians	
Chew, N. W. S., Lee, G. K. H., Tan, B. Y. Q., Jing, M., Goh, Y., Ngiam, N. J. H., Yeo, L. L. L., Ahmad, A., Khan, F. A., Shanmugam, G. N., Sharma, A. K., Komalkumar, R. N., Meenakshi, P. V., Shah, K., Patel, B., Chan, B. P. L., Sunny, S., Chandra, B., Ong, J. J. Y., Paliwal, P. R., Wong, L. Y. H., Sagayanathan, R., Chen, J. T., Ng, A. Y. Y., Teoh, H. L., Tsivgoulis, G., Ho, C. S., Ho, R. C., & Sharma, V. K. (2020). A multinational, multicenter study on the psychological outcomes and associated physical symptoms amongst healthcare workers during covid-19 outbreak. <i>Brain, Behavior, and Immunity</i> , 88, 559-565. https://doi.org/10.1016/j.bbi.2020.04.049	Explore relationship between psychological and physical symptoms of healthcare workers during the COVID-19 pandemic	Cross-sectional study; demographic, medical history, symptom prevalence, Depression Anxiety Stress Scales (DASS-21), and Impact of Events Scale-Revised (IES-R)	906 healthcare workers (480 from Singapore and 426 from India); Nurses made up 39.2%, Physicians made up 29.6%, and others were 10.6%	Reported mild physical symptoms: headache, throat pain, anxiety, lethargy, and insomnia Psychological outcomes: anxiety, depression, and stress, no differences between the two countries Fewer females had physical symptoms	Supports other findings in international studies about the psychological and physical symptoms from the impact of experiencing covid-19 in the role as the healthcare worker; differs in the result of women

				Association between physical symptoms and pre-existing health conditions	
Chu, J., Yang, N., Wei, Y., Yue, H., Zhang, F., Zhao, J., He, L., Sheng, G., Chen, P., Li, G., Sisi, W., Zhang, B., Zhang, S., Wang, C., Miao, X., Li, J., Liu, W., & Zhang, H. (2020). Clinical characteristics of 54 medical staff with covid-19: A retrospective study in a single center in wuhan, china. <i>Journal of Medical Virology</i> , 1-7. Doi: 10.1002/jmv.25793	Describe the status of medical staff infected with COVID-19	Cohort retrospective study from January to February 2020	54 healthcare workers in China	Exposure: 3.7% from ED, 72.2% from inpatient, 18.5% from medical technology, and 5.6% from others Severity: 20% mild, 74% severe, and 5% critical	Risk of infection to COVID-19, found to be more in inpatient settings and severity of symptoms to be severe
Hines, S. E., Chin, K. H., Levine, A. R., & Wickwire, E. M. (2020). Initiation of a survey of healthcare worker distress and moral injury at the onset of the covid-19 surge. <i>American Journal of Industrial Medicine</i> , 63, 830-833. Doi: 10.1002/ajim.23157	Describe moral injury in healthcare workers in “large academic medical center in Baltimore, Maryland” -To evaluate their relationships with demogra	Cross-sectional survey during a span of a month	219 participants in medicine, critical care, and emergency medicine	-positive association between “inpatient time, perceived workplace stress, and sleep troubles” -”increased risk for moral injury” with “higher inpatient time and sleep troubles” -”self-reported	-distress and moral injury present in healthcare workers -negative effects include sleep disturbances

	phic, occupational and resilience-related risk factors”			distress” elevated in healthcare workers	
Liu, M., Cheng, S. Z., Xu, K. W., Yang, Y., Zhu, Q. T., Zhang, H., Yang, D. Y., Cheng, S. Y., Xiao, H., Wang, J. W., Yao, H. R., Cong, Y. T., Zhou, Y. Q., Peng, S., Kuang, M., Hou, F. F., Cheng, K. K., & Xiao, H. P. (2020). Use of personal protective equipment against coronavirus disease 2019 by healthcare professionals in Wuhan, China: cross sectional study. <i>BMJ (Clinical research ed.)</i> , 369. https://doi.org/10.1136/bmj.m2195	Explore the effectiveness of personal protective equipment for healthcare workers taking care of patients with COVID-19	Cross-sectional study	420 healthcare workers: 116 doctors and 304 nurses	68.4% of the study participants were women and average age was 35.8 years old - participants worked an average of 16.2 hours a week in the ICUs -no infection occurred	Proper use of personal protective equipment was beneficial to no infection to COVID-19, however raises the question of the decrease amount of hours in the ICUs
Lu, W., Wang, H., Lin, Y., & Li, L. (2020). Psychological status of medical workforce during the covid-19 pandemic: A cross-sectional study. <i>Psychiatry Research</i> . https://doi.org/10.1016/j.psychres.2020.112936	Describe the psychological effects of the COVID-19 pandemic on healthcare workers	Cross-sectional study Survey of “personal assessment of fear, anxiety, and depression” -Numeric Rating Scale for fear -Hamilton Anxiety Scale and Hamilton	2299 participants -2042 healthcare workers (physicians and nurses) -257 administrative staff	Fear: -moderate and severe fear in healthcare workers compared to administrative staff -feelings of “worried, pressured, or frustrated” -ex: “psychological pressure of	Those in direct care of patients with COVID-19 had greater experiences of fear, anxiety, and depression. The study shows the specifically what caused them to

		Depression Scale for anxiety and depression		<p>working in isolation ward, worrying about being infected, shortage of protective equipment, epidemic would never be controlled, frustrated with unsatisfactory results on work, and feeling lonely with being isolated from loved ones”</p> <p>Anxiety: -22.6% mild to moderate anxiety -2.9% severe anxiety</p> <p>Depression: -11.8% mild to moderate depression -0.3% severe</p> <p>Overall, when compared to</p>	feel fear or frustration
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				administrative staff, healthcare workers were significant in fear, anxiety, and depression	
Morley, G., Sese, D., Rajendram, P., & Horsburgh, C.C. (2020). Addressing caregiver moral distress during the covid-19 pandemic. <i>Cleveland Clinic Journal of Medicine</i> , 1-5. doi:10.3949/ccjm.87a.ccc047	“Consult to explore 5 types of moral distress”	“Describe changes in clinical practice;” change in focus from patient care to community based care	Cleveland Clinic	“5 types of moral distress: moral constraint, moral uncertainty, moral dilemma, moral conflict, moral tension” -Visitor restrictions, “risk to personal safety” and family, decrease in elective surgeries, not going to hospital for other complaints, “allocating resources”	-provides an overview of the different types of moral distress -lays groundwork for further investigation
Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., Wang, C., Wang, Z., You, Y., Liu, S., & Wang, H. (2020) A qualitative study on the psychological experience of caregivers of covid-19 patients. <i>American Journal of</i>	Describe the psychological experiences of nurses caring	phenomenology	20 nurses: 3 males and 17 females -median age of	4 themes: 1: “significant amount of negative emotions in the early state”	Further supports other study findings about the psychological

<i>Infection Control</i> , 48(6), 592-598. Doi: 10.1016/j.ajic.2020.03.018	for patients with COVID-19		30 years old	2: “coping and self-care styles” 3: “growth under pressure” 4: “positive emotions occurred simultaneously or progressively with negative emotions”	impact on nurses
Zhang, Y., Wei, L., Li, H., Pan, Y., Wang, J., & Li, Q., Wu, Q., Wei, H. (2020). The psychological change process of frontline nurses caring for patients with covid-10 during its outbreak. <i>Issues in Mental Health Nursing</i> , 41(6), 525-530. https://doi.org/10.1080/01612840.2020.1752865	To describe any psychological changes of nurses caring for patients with COVID-19	Qualitative descriptive study	Purposive sampling of 23 nurses	3 stages identified: -Early stage: being ambivalent -middle stage: emotional exhaustion -later stage: energy renewal, adaptation	Supports previous findings of psychological change in nurses over a period of time

Appendix D

Interview Guide

Specific Aims	Concepts	Interview Questions	Probes
1. Describe the experiences of moral adversity, moral distress, and threats to moral well-being, integrity, and conscience of ICU nurses.	Opening Question	Please talk a little bit about your experiences caring for patients with COVID-19.	<p>How did you feel?</p> <p>Did you experience any physical changes during the pandemic?</p> <p>Can you remember how you initially dealt with the pandemic and the surge? This can be related to your physical, emotional, and spiritual health.</p> <p>Did you face any adversity?</p> <p>What were some of the moral challenges?</p> <p>Did your unit have a debriefing after the first surge? Or any discussions with staff about the pandemic and your experiences?</p>
2. Describe moral resilience in terms of integrity, buoyancy, moral efficacy, self-regulation, and self-stewardship among ICU nurses.	Integrity	How did your personal values play a role in your experience?	What personal, family values or moral beliefs were brought to bear on this situation?
	Buoyancy	Can you describe a situation when you were caring for a patient with COVID – that challenged your moral beliefs and how did you deal with this?	<p>Describe how you felt, and what lessons did you learn?</p> <p>If the current surge is your second experience, how has the experience changed for you?</p>
	Moral efficacy	I am going to ask you a few other questions related to that challenging situation.	What prepared you?

		How prepared were you to deal with the challenges you faced?	What could have helped you feel more prepared?
	Self-regulation	What strategies did you use to deal with all of this?	Were the strategies that you thought of on your own or shared from others? What activities did you do to help you during this time?
	Self-stewardship	How did you take care of yourself during this time? Describe a situation where you had a difficult shift and had to return to work the next day? What did you do so you could face the next day?	How useful was this to you? What were your concerns about potential exposure to the virus and accidental exposure to others?
3. Explore the relationship between moral distress and moral resilience to advance the concept of moral resilience in the face of a global pandemic.		When I use the term moral resilience what does it mean to you? Did you experience moral resilience when caring for patients with COVID?	In your words, how would you define it? What would you teach new nurses about it? How to enhance it when experiencing difficult situations in practice? If yes – how?
		If you were going to talk to new nurses about caring for patients during a pandemic – what would you share with them?	What you know now compared to what you wish you knew before the pandemic? How would you compare what you felt back then to what you've learned now about COVID-19?
	Closing Question	When reflecting on your experiences, what helped you get through this?	Do you know any nurses that would be interested in joining this study?

		<p>Have you changed at all based on this experience, <i>if yes how?</i></p> <p>Is there anything else that you would like to share?</p>	<p>Do you work: (full time, part time, per diem or traveler) – if a traveler – where else have you worked during the pandemic?</p>
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Summary of Changes from Proposal

There were no changes made to the design of the study. The following changes were made:

1. The interview guide was revised with addition, removal, and change in order of interview questions.
2. The term moral adversity was changed to moral challenges to encompass the totality of experiences by ICU nurses.
3. The framework was revised based on the findings of the study.

Moral Challenges, Moral Distress, and Moral Resilience in Critical Care Nurses during the COVID-19 Pandemic

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September 24, 2021

Introduction: COVID-19 Pandemic

- Global Statistics: 205 million people have been infected with SARS-CoV-2¹ & 4.3 million have died¹
- National Statistics: 36.6 million people have been infected² & 621,000 have died²
- Preliminary data suggests that the COVID-19 pandemic has had a tremendous impact on healthcare workers, including nurses.^{3,4}
- Symptoms: emotional exhaustion, depersonalization, increased irritability, change in eating habits, difficulty sleeping, muscle tension, and burnout⁵
- Fear of running out of supplies and personal protective equipment⁶
- Frustration with failures are work⁶

Purpose & Specific Aims

Purpose

- to describe intensive care unit (ICU) nurses' experiences of moral challenges, moral distress, and moral resilience during the COVID-19 pandemic

Specific Aims

1. Describe the moral challenges experienced by ICU nurses
2. Describe moral resilience in terms of integrity, buoyancy, moral efficacy, self-regulation, and self-stewardship among ICU nurses
3. Explore the relationship between moral distress and moral resilience to advance the concept of moral resilience in the face of the COVID-19 pandemic

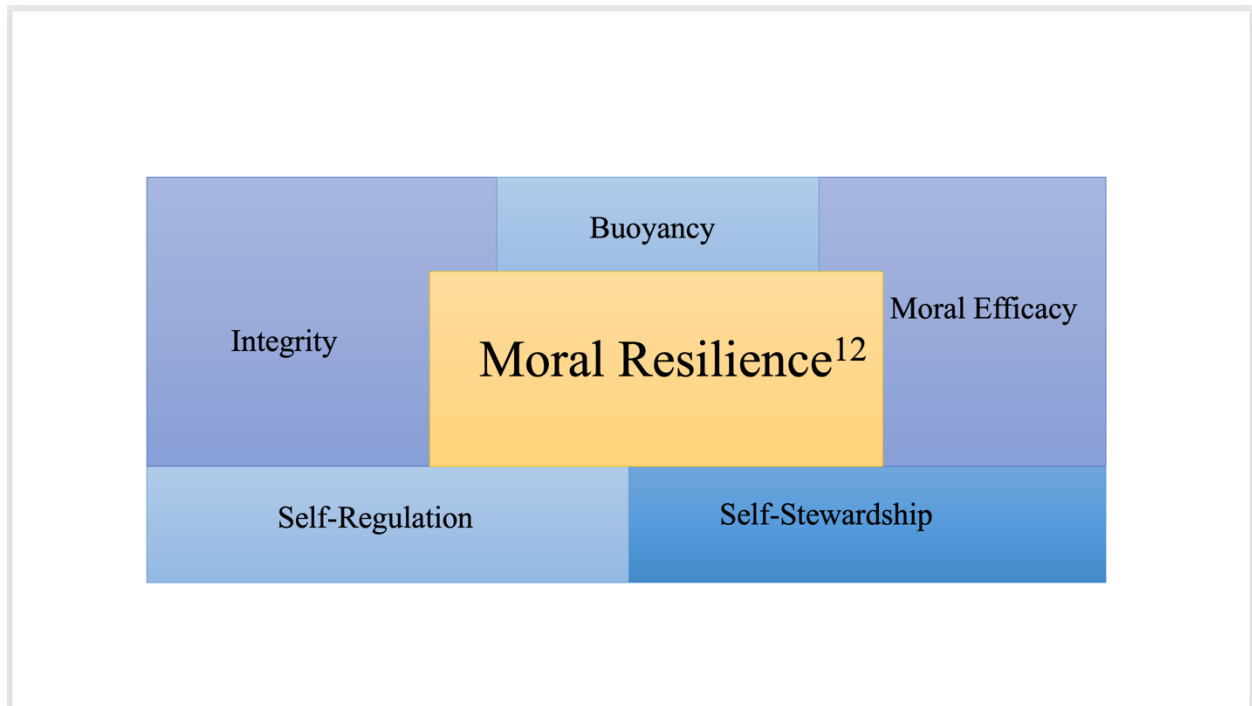
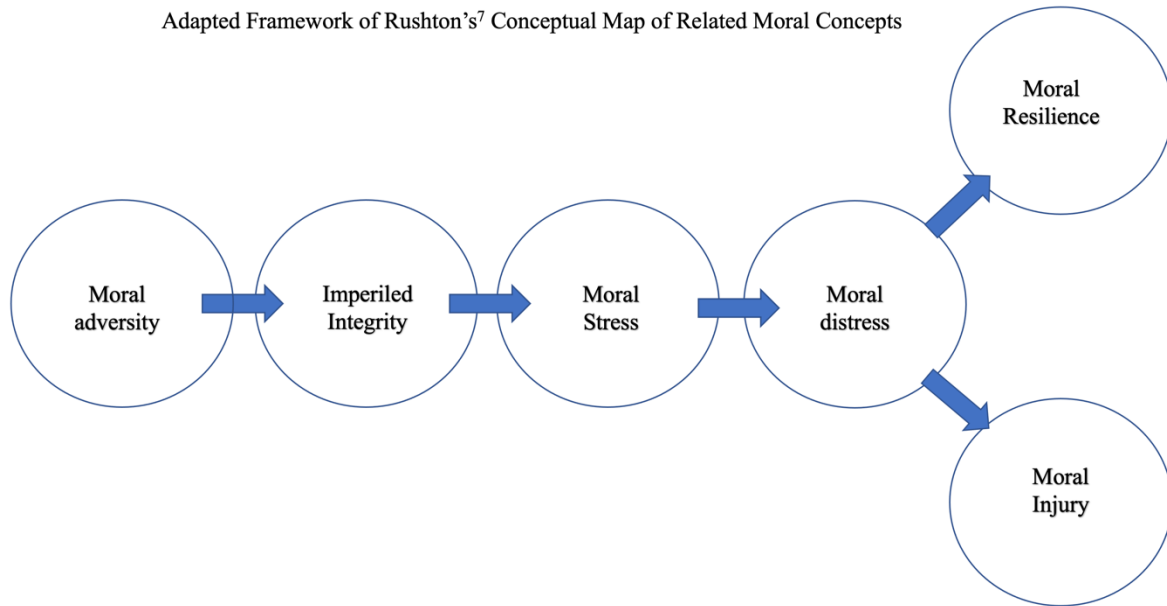
Background

Definitions of Moral Adversity, Moral Distress, Moral Injury and Moral Resilience

Concept	Definition
Moral Adversity	Moral adversity occurs in the context of moral stress, moral challenges, constraints on moral agency, and when one anticipates a moral threat. Moral adversity threatens personal moral well-being, integrity, and conscience. ⁷
Moral Distress	Experience of knowing the right thing to do while being in a situation in which it is nearly impossible to do it. ⁸
Moral Injury	Moral injury refers to those who experience or commit moral violations that led to negative symptoms that affect their social, religious, spiritual, or biological domains. ⁹
Moral Resilience	The capability of a person to act and maintain or improve their personal integrity when faced with challenging situations that are rooted in moral or ethical issues. ^{10,11}

Figure 1

Adapted Framework of Rushton's⁷ Conceptual Map of Related Moral Concepts



Methods

Design

- qualitative descriptive design¹³

Setting

- Tertiary care facility and academic Level 1 trauma center
- Five ICUs dedicated to caring for patients with COVID-19
- Average census of 20-25 patients with COVID-19 in the ICUs¹⁴

Sampling and Participants

- Permission to recruit obtained
- Recruitment: January to May 2021
- Purposive sampling to recruit 17 nurses
- Modified snowball sampling technique

Inclusion criteria

- currently employed as registered nurses
- age 18 or older
- practicing in an ICU
- provided direct care to patients with COVID-19
- able to speak English
- provided verbal informed consent
- access to Zoom by phone or internet

Exclusion criteria

- nurses who worked in the same ICU as the researcher
- those who have not provided direct care to patients with COVID-19

Procedure

- Approval by Institutional Review Board (IRB)
- Fact sheet
- Verbal consent obtained
- Virtual interviews via Zoom
- Interviews audio recorded using two recorders
- Transcribed by professional transcription services

Data Collection

- Semi-structured interview guide
- Interview lengths: 18-60 minutes, average of 33 minutes
- Demographic data: gender, age, race, years of experience (RN and ICU), highest degree completed, number of patients with COVID-19 cared for, surge timeline, average hours of work during the surge, and months caring for patients with COVID-19
- Field notes
- Audit trail

Data Management

- Review of transcript with audio recording
- Encrypted and secure research drive
- Demographic data entered into Statistical Package for the Social Sciences (SPSS)

Data Analysis

Demographic data

- descriptive statistics in SPSS

Braun and Clarke's thematic analysis process: ¹⁵

- 1) First phase: immersing oneself in the data
- 2) Second phase: coding of the transcript
- 3) Third phase: analysis of the code and organization into themes
- 4) Fourth phase: refining and tailoring themes
- 5) Fifth phase: review and final analysis

Trustworthiness & Reflexivity

*Credibility, Dependability, Transferability, and Confirmability*¹⁶

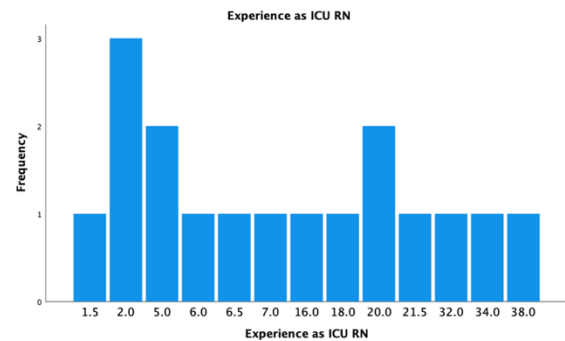
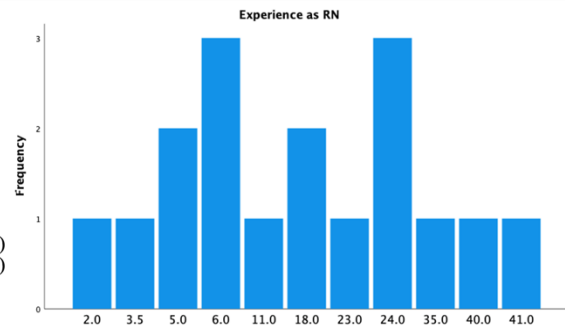
- Interviews transcribed verbatim and reviewed for accuracy
- Peer debriefer
- Audit trail
- Field notes
- Member checks with 3 participants
- Thick, rich description

Reflexivity

- Reflective journal
- Debrief with committee chair

Demographic Data

Characteristic	n(%)	Estimated number of patients	
Gender			
Female	15(88%)	0-100	11(65%)
Male	2(12%)	101-200	2(12%)
Age		201-300	0(0%)
18-30	7(41%)	301-400	0(0%)
31-40	1(6%)	401-500	2(12%)
41-50	2(12%)	>500	1(6%)
51-60	6(35%)	Missing	1(6%)
61+	1(6%)	Experience during surge(s)	
Race		1 st only	0(0%)
White	16(94%)	2 nd only	2(12%)
Hispanic/Latino	1(6%)	Both	15(88%)
Highest educational level		Months cared for patients with Covid-19	
Associate degree	2(12%)	0-5	0(0%)
Baccalaureate degree	13(76%)	6-10	3(18%)
Master's degree	2(12%)	11-15	14(82%)



Aim 1: ICU Nurses' Experiences

Death & Dying

- Magnitude of death
- Fast deterioration
- Guilt for not being able to grieve
- Feelings of desensitized
- Dying without family presence
- Firsthand knowledge of patient's survival
- Wanting to save lives, but unable to

"It was literally unlike any disease process I've seen in almost 25 years of nursing. Relatively healthy people would come in and they'd be dead within like a week, and they'd just go downhill so quickly."

Pain & Suffering

- Viewed patients as having pain and suffering
- Perceived self as adding to this discomfort
- Foresee poor prognosis and unable to change care of plan
- Families prolonging the inevitable

Aim 1: ICU Nurses' Experiences

Being Alone

- Feeling of patients were isolated
- Nurses sharing similar feelings
- Constrained by visitor policy

"And it was very distressing just having to go into the same situation every single shift, knowing how sick these patients were, that many of them were going to pass away and the situations with having to cluster your care and limit your time in the room. So I think just being able to kind of discuss how you were feeling and something for me personally, was making me very anxious during the entire like pandemic, especially when I was at work, I just felt like I had no control."

Helpless and Not in Control

- Complexity and acuity of the patients
- Threatened their integrity and type of care nurses could give

Aim 2: Moral Resilience

Integrity

- Accept and respect family wishes
- Provide care and support to family

Buoyancy

- Give self pep talk
- Personal growth and evolve over time

Moral efficacy

- Advocacy by action or voice
- Not passing *judgment*

"I did the best I could with the time I had, the resources I had. I tried what I could, maybe it could have been better, but at the time that's the best I could do."

Aim 2: Moral Resilience

Self-regulation

- Ability to provide comfort to others
- Personal protection: *invisible wall*
- Able to experience emotions

Self-stewardship

- Utilize exercise and hobbies
- Sought for support and debriefing experience

"I think sometimes maybe, but you have to put up some sort of wall, because like I said, personally, I wouldn't be able to function. I think, the professional boundary... You have to cut it off. You have to separate yourself. I can't get emotionally attached, because if I got emotionally attached to every COVID patient, I mean, I wouldn't be able to function. So I have to put up a barrier between me and them."

Moral Resilience: New Finding

Self-perception (new finding)

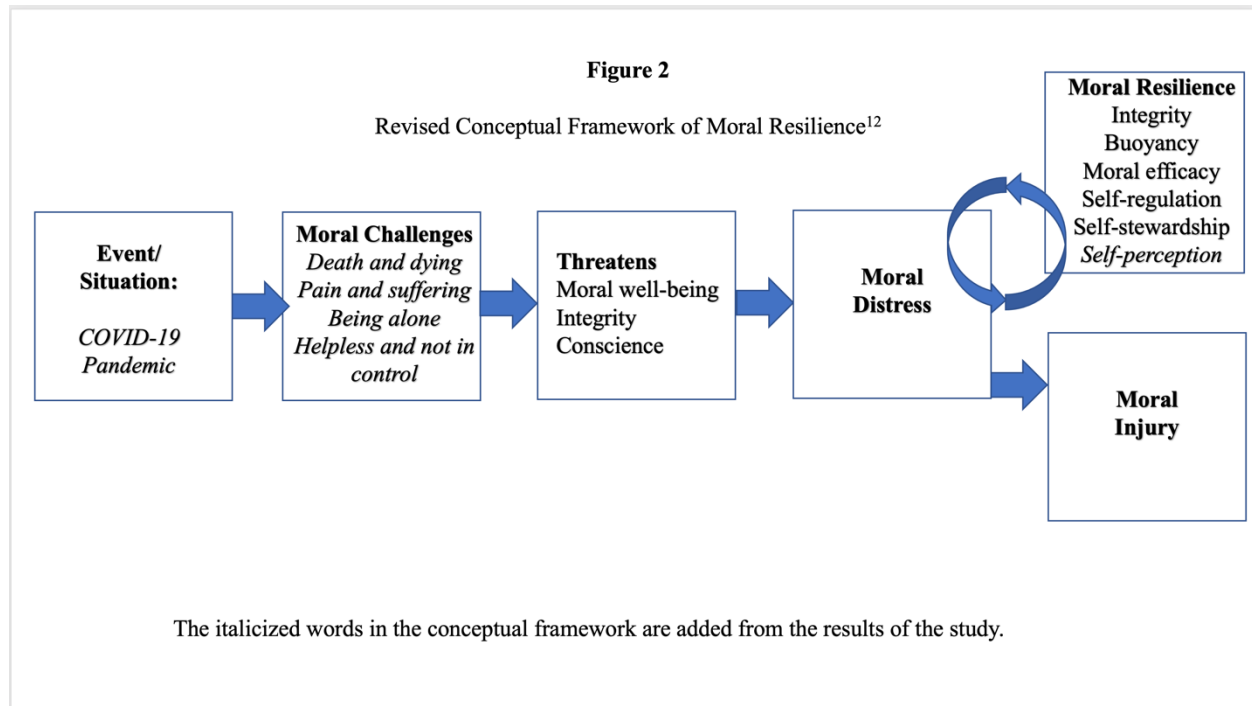
- Define moral resilience in their own terms
- View self as morally resilient
- Protect their internal view of themselves

“When you go into the situation, into something negative and you infiltrate it with empathy and compassion, that protects you. You're the light that's piercing through the darkness and through the negative influences. So empathy and compassion is how I develop my moral resilience.”

Aim 3: Relationship between Moral Distress & Moral Resilience

- Moving from moral distress to moral resilience is not uni-directional
- Iterative process
- Dynamic and fluid
- Able to recall experiences during the interviews
- Experiences stuck with them
- Awareness of the effects of moral distress

“...I feel like we all are a little traumatized still. If I can still cry about it, I'm probably still traumatized by it. And I think that it's going to take some time for us all to kind of get that.”



Limitations

- Northeastern part of United States
- Participants had experienced first two COVID-19 pandemic surges
- May not be transferable to nurses who worked in low or extremely high impact COVID-19 locations
- Majority of participants were white and female ICU nurses
- Study reflect those who were more likely to be morally resilient
- Willingness to participate not reflect those who left the profession, morally distressed, or burnout

Implications

- Nurses experienced moral distress and moral resilience at earlier stage
- Describes moral challenges of ICU nurses during the COVID-19 pandemic
- New insight into the fluid nature between moral distress and moral resilience
- New finding called “self-perception” that warrants further research
- Adapted conceptual framework to be utilized for future studies
- Empirical data for future interventions
- Replicate this study in other areas of United States, acute care settings, and other disciplines
- Use of debriefing as a potential leadership/institutional strategy to foster moral resilience
- Address turnover and attrition that was evident in the ICUs of the participants

Dissemination Plan

The manuscript will be submitted to *Advances in Nursing Science: Pandemic Reflections*, Vol 45:2 for review

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- Meatball
- Husband



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