

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

# Journal Pre-proof

The Long Tail of COVID 19: Implications for the Future of ED Nursing

Heidi Holtz, PhD, RN, Guy M. Weissinger, PhD, RN, Deborah Swavely, DNP, RN, Lisa Lynn, MSN, RN, CCRN, Angela Yoder, MSN, RN CNL CCRN-CMC, PCCN, EBP (CH), Bridgette Cotton, DNP, MSN, RN, Thomas Adil, LPC, Mary Alderfer, MSN, RN, CNML, Barb Romig, DNP, RN, CPHQ, NEA-BC, Kristen Neils, MSN, RN, Cynda Hylton Rushton, PhD, RN, FAAN

Journal of EMERGENCY NURSING OTHER PRINCES OF THE REMEMBER WHATER A SECONDON

PII: S0099-1767(22)00282-3

DOI: https://doi.org/10.1016/j.jen.2022.10.006

Reference: YMEN 3940

To appear in: Journal of Emergency Nursing

Received Date: 14 July 2022

Revised Date: 13 October 2022 Accepted Date: 13 October 2022

Please cite this article as: Holtz H, Weissinger GM, Swavely D, Lynn L, Yoder A, Cotton B, Adil T, Alderfer M, Romig B, Neils K, Rushton CH, The Long Tail of COVID 19: Implications for the Future of ED Nursing, *Journal of Emergency Nursing* (2022), doi: https://doi.org/10.1016/j.jen.2022.10.006.

This is a PDF file of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but it is not yet the definitive version of record. This version will undergo additional copyediting, typesetting and review before it is published in its final form, but we are providing this version to give early visibility of the article. Please note that, during the production process, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

© 2022 Published by Elsevier Inc. on behalf of Emergency Nurses Association

#### The Long Tail of COVID 19: Implications for the Future of ED Nursing

# Heidi Holtz PhD, RN Assistant Professor Goldfarb School of Nursing, St. Louis, MO <u>Heidi.holtz@bjc.org</u>

Guy M. Weissinger, PhD, RN Assistant Profess, Villanova University Fitzpatrick College of Nursing,
Villanova, PA
Guy.Weissinger@villanova.edu

Deborah Swavely, DNP, RN
Deborah.Swavely@towerhealth.org

Lisa Lynn, MSN, RN, CCRN Lisa.Lynn@towerhealth.org

Angela Yoder, MSN, RN CNL CCRN-CMC,PCCN, EBP (CH)
Angela.Yoder@towerhealth.org

Bridgette Cotton, DNP, MSN, RN
Bridgette.Cotton@BarnesJewishCollege.edu

Thomas Adil, LPC
Thomas.Adil@towerhealth.org

Mary Alderfer, MSN, RN, CNML Mary.Alderfer@towerhealth.org

Barb Romig, DNP, RN, CPHQ, NEA-BC Barbara.Romig@towerhealth.org

Kristen Neils, MSN, RN
Kristen.Neils@BarnesJewishCollege.edu

Cynda Hylton Rushton, PhD, RN, FAAN

Crushto1@jhu.edu

John Million College C

1 2	Header: Research		
3	Author: Please include ORCID ID numbers and Twitter handles for all authors who have them.		
4	Author: Please confirm that any acknowledgements are included and correct.		
5 6 7			
8 9 10	The Long Tail of COVID 19: Implications for the Future of ED Nursing		
11			
12 13	Abstract		
14 15	<b>Objective:</b> To understand the perspectives of emergency nurses' perception of psychological trauma during COVID 19 and protective mechanisms used to build resilience.		
16 17 18 19	<b>Method:</b> The primary method was qualitative analysis of semi-structured interviews, with survey data on general resilience, moral resilience, and traumatic stress used to triangulate and understand qualitative findings. Analyses and theme development were guided by Social Identity Theory and informed by the Mid-Range Theory of Nurses' Psychological Trauma.		
20 21 22 23 24 25 26	<b>Results:</b> A total of 14 emergency department (ED) nurses were interviewed, 11 from one site and 3 from the other. Almost all nurses described working in an ED throughout the pandemic as extraordinarily stressful, morally injurious, and exhausting at multiple levels. While the source of stressors changed throughout the pandemic, the culmination of continued stress, moral injury, and emotional and physical exhaustion almost always exceeded their ability to adapt to the ever-changing landscape in healthcare created by the pandemic. Two primary themes were identified: Losing Identity as a Nurse and Hopelessness and Self-Preservation.		
27 28 29 30	<b>Conclusion:</b> The consequences of the pandemic on nurses are likely to be long-lasting. Nurses need to mend and rebuild their identity as a nurse. The solutions are not quick fixes but rather will require fundamental changes in the profession, healthcare organizations and society. These changes will require a strategic vision, sustained commitment, and leadership to accomplish.		
31	Keywords: Emergency department, Nurses, Trauma, COVID 19, Moral resilience		
32 33 34 35 36 37 38 39 40			

#### Introduction

Emergency departments (EDs) are a vital part of the healthcare system, handling a wide variety of patient concerns and acting as a safety net for many people. Additionally, EDs are also one of the most stressful environments for nurses, with significant rates of burnout, moral distress, and traumatic stress. <sup>1–3</sup> Emergency nurses experience high rates of workplace violence from patients and family members <sup>4,5</sup> and, like all nurses, have high rates of other workplace injury. EDs struggle to retain nurses, which places remaining nurses under increased strain and puts patients at risk. Limits in resources during the pandemic, especially nurse staffing, have led to an increase in "ED boarding," where individuals are "admitted" for treatment but still occupy space in the ED awaiting transfer. This backlog of ED patients contributes to increased stress and increases the likelihood of errors and decreased quality of care. <sup>10</sup>

The consequences of this historic, unprecedented event for nurses go beyond "burnout", a workplace phenomenon characterized by emotional exhaustion, lack of efficacy, and callousness. <sup>11</sup> The combination of individual, health system, and societal factors are deeply wounding to the moral fiber, identity, and integrity of nurses. Emergency nurses have been placed into situations during the pandemic that led to moral injury. <sup>12,13</sup> Moral injury in healthcare is a type of suffering characterized by exposure to circumstances that violate one's values and beliefs eroding integrity, capability, and perception of basic goodness, and creating psychological, behavioral, social, or spiritual distress. <sup>12</sup> These nurses faced challenges with ever-changing protocols, shortages of resources, expedited time constraints and the responsibility of refusing patient visitors. <sup>14,15</sup> Emergency nurses were expected to provide care and follow guidelines, often against their own beliefs and values as a nurse and as part of the nursing profession. This left emergency nurses with massive emotional struggles leading to guilt and remorse, wishing that they could have performed differently, even though the decisions were likely unavoidable at the time. <sup>12,14</sup> Work-related trauma, feelings of institutional betrayal and moral injury came together to create potentially morally injurious events and erosion of a nurses' moral core, identity, and worth. <sup>13,16</sup>

These various types of trauma, moral injury, and system-wide abandonment have contributed to nurses leaving, or considering leaving, the profession.<sup>17</sup> A major driver of attrition may be erosion of their nursing identity, nurses with low professional identity are more likely to report intent to leave jobs and the profession<sup>18,19</sup>. As the COVID-19 pandemic continues, nurses face obstacle after obstacle; their self-concept and integrity as nurses have been challenged, especially in relationship with patients, families, coworkers, leaders, and organizations<sup>12,13,15</sup>. Moral resilience, "the capacity of an individual to preserve or restore integrity"<sup>20</sup> (p. 489) has been proposed as a protective resource to support nurses

whose integrity has been threatened or violated.<sup>20</sup> Moral resilience, a domain within the broader concept of resilience, harnesses the inherent integrity of persons to restore their moral agency to choose actions that are aligned with their values.<sup>21</sup> Like generic resilience, it is a strengths-based concept that empowers people to respond to adversity rather than become victimized and powerless.<sup>21</sup> Understanding emergency nurses' experiences of the COVID-19 pandemic and how it impacted them and their professional identity may provide information useful for designing and implementing interventions to support them and the healthcare system. The purpose of this exploratory study is to better understand the perspectives of emergency nurses' psychological trauma and resilience during COVID 19 and protective mechanisms used to build resistance. This will not only inform local interventions but also contribute to the emerging body of knowledge on trauma and resilience during a pandemic.

## Methods

#### **Theoretical Frameworks**

Foli's Middle Range Theory of Nursing Trauma articulates how nurses' daily caring work exposes them to many potentially traumatic events<sup>22</sup> (see Table 1 for critical concepts). Emergency nurses are particularly susceptible to trauma, including Secondary Trauma, Vicarious/Secondary Trauma, Historical Trauma, Workplace Violence, System Induced Trauma, Insufficient Resource Trauma, Second Victim Trauma, and Trauma from Disaster, resulting from the experience of and witnessed suffering of primary trauma.<sup>22</sup> In addition to usual trauma exposure, during the pandemic emergency nurses experienced increased risk of Disaster-Related trauma, Insufficient Resource Trauma, System Induced Trauma, and Workplace Violence. Unfortunately, the COVID-19 pandemic has further exacerbated existing problems and created new concerns for emergency nurses.<sup>15,17,23</sup>

Social identity is a person's awareness of who they are based on membership in a group(s). Social Identity Theory was developed during the 1970's by Henri Tajfel to emphasize the importance of group membership to social identity and accentuate how group membership can be a source of pride and self-esteem.<sup>24</sup> This theory explains phenomena that occur between groups such as discrimination and stereotyping.<sup>25</sup> More recently, Social Identity Theory has gained merit as a framework explaining social identity and group memberships' relationships with health and wellbeing,<sup>26–28</sup> highlighting how body and mind are conditioned by group belonging.<sup>29</sup> This framework has been used to examine stressful life transitions, including reactions to trauma, using the Social Identity Model of Identity Change<sup>30</sup> (SIMIC) and shows that negative responses to trauma can lead to significant changes in social identity.

Social Identity Theory has been applied to the nursing profession and suggests that the nursing identity is constructed through a process of social belonging in multiple communities (the professional, the health system, the unit, etc.), in relationship with other individuals (patients, coworkers), and in relationship with external groups (e.g., the public).<sup>31</sup> The SIMIC was used to understand changes in emergency nurses' professional and personal identity from their experiences during the COVID-19 pandemic.

#### Methods/Design

This study used a concurrent, mixed methods design.<sup>32</sup> The primary method was qualitative interviews, with survey data used to triangulate and understand qualitative findings. A qualitative descriptive approach guided this study which seeks to provide a straightforward description of a

phenomenon of interest.<sup>33</sup> Univariate descriptive approaches to statistical analysis were used for quantitative data and integration occurred through weaving of qualitative and quantitative findings to triangulate emergency nurses' experiences. Analysis and theme development were guided by Social Identity Theory<sup>22</sup> and informed by the Mid-Range Theory of Nurses' Psychological Trauma.<sup>22</sup> Participants provided their consent to participate. The potential risk of psychological distress during the interview was outlined and information was provided for Employee Assistant Program. The study was approved by the Institutional Review Board of Reading Hospital and Missouri Baptist Medical Center.

### Sample and Setting

Study sites were two Magnet-designated, acute care hospitals. One site is a Midwestern hospital whose ED is not a trauma center and cares for 100 patients per day with approximately 40 of those being COVID patients. The second site is level 1 trauma center on the East Coast and is the 10<sup>th</sup> busiest ED in the country.

The target population was nurses working in the emergency department (ED) with COVID-19 patients. Fourteen nurses from the ED who provided direct care for patients with COVID-19 participated in this study. All participants were Caucasian females with professional nursing experience ranging from two to twenty years of practice. Two nurses were master's prepared, and twelve nurses had Bachelor of Science in Nursing degrees. Purposeful sampling was used, with potential participants identified by clinical staff as those who had rich experiences on the phenomenon.

#### Team

The research team consisted of four doctorally-prepared nurse researchers, four critical care nurses, a medicine nurse, one nurse administrator, and a hospital chaplain. Each stage of the research process was evaluated by the entire group, to reduce individual researcher bias. Two doctorally-prepared nurse researchers conducted all interviews (one at each site). Frontline nurses who were not participants in the study confirmed themes and identified and provided member checking, which increases credibility of findings as based in the data and the lived experience of those who experience the phenomenon.<sup>34</sup>

#### Recruitment

After approval, a study flyer was emailed to all nurses working in the EDs that had direct contact with COVID-19 patients and placed throughout ED units. The flyer provided a brief study description, eligibility criteria, and investigator's contact information. Research team members also attended shift huddles to describe the study and provide additional flyers. Fourteen emergency nurses contacted investigators and all fourteen nurses were eligible and agreed to participate. They completed surveys followed by interviews. Interviews were scheduled at a mutually convenient time. Data saturation was met with a sample of thirteen participants. A confirmatory interview was completed to verify saturation.

#### **Data Collection Strategy**

Written consent was obtained prior to completing surveys. Participants completed surveys of the following measures using a secure web application for managing databases (REDCap), prior to semi-structured interviews: the 10-item Connor-Davidson Resilience Scale<sup>35</sup> (CD-RISC 10; assesses resilience) the revised Impact of Event Scale<sup>36,37</sup> (IES-R; measures traumatic stress); and the 17-item Rushton Moral Resilience Scale<sup>38</sup> (RMRS; measures moral resilience). Participants were informed that participation was completely voluntary, they were free to withdraw at any time without penalty, that participation and non-participation would not be considered as part of their employment, and they could refuse to answer any questions. Participants all chose to be interviewed in person, which took place in private offices and were recorded for later transcription. Interviews lasted an average of 30 minutes. Semi-

structured guides were used for interviews. Survey data was not available to the interviewer and was integrated during analyses. (See Table 2)

**Data Analysis** 

Qualitative descriptive design allows the researcher to discover the who, what, and where of events or experiences while gaining insight from participants regarding a poorly understood phenomena.<sup>33</sup> Because this study sought to understand the traumatic stress and resilience of emergency nurses who cared for patients with COVID-19, qualitative description was the most appropriate method. The research team read transcribed interviews in their entirety to develop an overall understanding of participant experiences. The template style was used to organize data using codes.<sup>39</sup> Template style is a particular type of thematic analysis, focused on hierarchical coding which can be changed with the needs of the study and ongoing analyses. Initial codes were developed *a priori* based on concepts of resilience, traumatic stress, and moral resilience. Codes were expanded upon and added to through inductive analysis through an inductive-deductive hybrid approach.<sup>40</sup> Team members evaluated codes and assisted with theme development and verification. The research team had ongoing discussions to ensure participant experiences and perceptions were not dismissed due to researcher bias.

# Results

A total of 14 emergency nurses were interviewed, 11 from one site and 3 from the other. Nurses had high levels of both general resilience and moral resilience (CD RISC 10 mean = 31.2, SD = 4.4; RMRS mean = 45.9, SD = 4.6). CD RISC 10 scores are as follows:  $25^{\text{th}} \% = 29$ ;  $50^{\text{th}} \% = 32$ ;  $75^{\text{th}} \% = 36$ . RMRS is a 17-item scale with higher scores indicating greater resilience. There are no established cutoff scores for the RMRS. Despite having high levels of resilience and moral resilience, participants revealed that the adversity they faced exceeded their individual capacity to prevent psychological trauma from occurring. Almost all reported that they had been highly impacted by the events of the COVID-19 pandemic (IES\_R median = 28, range 8-73). Nurses described working in an ED throughout the pandemic as extraordinarily stressful, morally injurious, and exhausting at multiple levels. While the stressors changed throughout the pandemic, the culmination of continued stress, moral injury, and emotional and physical exhaustion almost always exceeded their ability to adapt to the ever-changing landscape in healthcare created by the pandemic. The particular experiences of nurses differed for individuals and between settings, but important patterns emerged during analyses demonstrating shared experience. Two primary themes were identified: *Losing Identity as a Nurse* and *Hopelessness and Self-Preservation*. See Table 2 for exemplar quotes.

#### Losing Identity as a Nurse

Emergency nursing was exhausting and physically taxing for participant nurses, with virtually no downtime, but they cared deeply and had strong professional identity as a nurse. This identity developed from their membership in the profession of nursing.<sup>27</sup> Unfortunately, as they felt unmoored from the social connections and reinforcements that had previously affirmed and supported this identity, their self-concept of being a nurse fell apart slowly throughout the pandemic. In this study, there were several factors that threatened nurses' identity and core values: being able to provide compassionate, respectful, and safe patient care and a commitment to the organization, patients, and the community. Four sub-themes describe the different factors that related to the loss of identity as a nurse, with each nurse experiencing a unique blend of these experiences: (1) Potentially Morally Injurious Situations; (2) Broken Social Contract with the Community; (3) Betrayal by the Organization; and (4) Traumatic Stress Responses to the Experience of Being a Nurse During COVID.

#### **Potentially Morally Injurious Situations**

Foli's Second-victim trauma, which is stress experienced by clinicians involved in incidents with harm to others for which they feel responsible, was evidenced through their moral injury. Morally Injurious Events are situations in which one's moral code is violated either through their own transgressive actions or inactions, or others' perceived betrayal by others. As Respondents reported being unable to fulfill their professional ethical values and commitments to provide safe care for their patients. A shortage of nurses and organizational resources relating to Foli's insufficient resource trauma further damaged the nurses' professional identity. Despite these constraints, nurses were expected to be able to provide care that was commensurate with their competence and skill. They reported that systems that had previously worked, like temporary ED boarding, were breaking down and causing patient injury. The emergency nurse participants experienced situations in which patient care decisions made by other team members did not align with their ethical values. Despite these challenges, nurses' moral resilience scores measured by the RMRS remained above 37, with the highest score of 54 indicating higher moral resilience.

#### **Broken Social Contract with the Community**

Social Identity requires interactions with people in the "in group" and the "out group" to support the alignment with their nursing image. Nurses' social contract with the community is integral to their nursing identity. <sup>42</sup> Participants of this study asserted that social contract was broken and nursing's identity as the "heart" of the healthcare system has been severed. Community members who had not been vaccinated or were violent toward staff violated their sense of how nurses support the community and are, in turn, supported by them. SIMIC conveys the loss of support, and threatens social identity and well-being. <sup>28</sup> They could not see themselves as being able to fully commit to the health of the community when the community would not fulfill its part of the social contract, which eroded their sense of being a nurse.

#### Betrayal by the Organization

Relating to Foli's system induced trauma, participants' wellbeing suffered greatly from failure of healthcare organizations to provide support leading to the loss of professional identification as nurses. Nurses felt that there was a significant misalignment between what their organization provided to them and what they needed and deserved during the COVID-19 pandemic. Organizational cost saving measures added to the nurse's perceptions of their healthcare organization's betrayal of their commitments when they were asking nurses to do more with less or to assume additional risk. They provided examples of nurses being furloughed, supplies being unavailable or rationed, (especially PPE), and loss of benefits like retirement and tuition reimbursement that made the job worthwhile. They described organizational responses to resource scarcity as lack of caring or support. Attempts by healthcare organizations to offer typical forms of support felt stigmatizing and inequities in compensation made them feel devalued. All of these came together and led to the conclusion that they were no longer a valued member of the healthcare team, a core element of nursing identity.

#### Traumatic Stress Responses to the Experience of Being a Nurse During COVID

Nurses report their experience of working during COVID-19 as being traumatic, but often in a cumulative way, rather than a single traumatic event. Emergency nurses felt depleted, numb, lacking compassion, and possessing a sense of anxiety and dread. They had a disconnection from their work and purpose, and fears about infecting their loved ones. They reported experiencing unfamiliar intensity of emotions along with an escalation of distress. Trauma experienced by nurses during COVID-19 undermined the values of nurses' identity. Nurses' commitment, significance, and deeply distressing experiences were not recognized or addressed by the community or healthcare organizations and consequently jeopardized nurses' identity. They acknowledged the mental health consequences of their

experiences and impact of attempting to explain their experiences to others. This finding was confirmed with 12 participants who completed the survey. An IES-R score of 33 or greater is indicative of probable diagnosis of PTSD.<sup>36</sup> Five of twelve participants (42%) scored above 33, with the highest score 73. These trauma experiences, which were tied to their experiences as nurses, made their professional identity sometimes painful, rather than a source of strength and meaning.

#### **Hopelessness and Self-Preservation**

The first theme described their previous experiences, but emergency nurses also spoke about themselves now and in the future during the long tail of COVID. A sense of hopelessness permeated their work and made them take actions to preserve themselves. Many of the factors that led to the loss of nursing identity contributed to their hopelessness, a sense that their life and work was at an all-time low. Some nurses were stuck in this hopeless phase, not knowing what to do but feeling a deep sense of "this does not matter" as they struggled on. Others described how they had felt hopeless, but gathered the strength to make changes. The erosion of their nursing identities profoundly changed their commitment to their jobs and the profession. They concluded it was not possible to simply return to practice as it was prior to COVID. They created mental and emotional barriers around work and began searching for new roles and new ways of being. Working as a "travel" nurse was a common "next step" towards self-preservation, with nurses looking for similar clinical experiences but better pay, which they hoped would make the work more meaningful. Others searched for jobs in outpatient settings or discussed leaving the profession entirely. Self-preservation was viewed as a demonstration of their strength, as they realized their needs did not align with their previous identity or current situation.

#### **Discussion**

This study contributes to the research on front-line nurses' lived experience providing care during the COVID-19 pandemic especially how potentially morally injurious situations and trauma impacted their nursing identity. Consistent with other qualitative and quantitative findings, emergency nurses experienced various types of trauma caring for patients during the pandemic. Traumatic stress was comparable to those experiencing or witnessing profoundly difficult events like war and assault. Middle Range Theory of Nurses' Psychological Trauma informed data interpretation with theoretical assumptions that all nurses experienced trauma, and the seven types of trauma were reflected in their experiences. Furthermore, it facilitated a method to identify and distinguish the different types of nurse-specific trauma experienced by participants.

This study expands the understanding of how emergency nurses experience traumatic stress and potentially morally injurious events, which have an eroding effect on nurses' identity. This erosion of professional identity in these changed circumstances creates a disorientation that unmoors even the most confident nurse. When they are unsure who they are and what they stand for, their foundational values as a nurse are violated and their integrity is threatened. Moral injury results when there is a traumatic or unusually stressful circumstance where people may perpetrate, fail to prevent, or witness events that contradict deeply held moral beliefs and expectations. <sup>14,15</sup> When nurses' core ethical values are threatened by morally injurious situations, their identity as a nurse suffers. <sup>15</sup> Despite the reality that the pandemic created unprecedented resource constraints, nurses continued to appraise their identity based on pre-pandemic standards and in some instances viewed their inability to provide the usual level of care harshly even though alternatives were not possible. Nurses' professional identity were eroded by the transgressions and betrayals of others, such as decisions made by leaders to constrain the usual decisions nurses make in implementing their roles. Even more damaging is when these events lead to fundamental questioning of "Am I still a good person?" for having participated in or precipitated actions contrary to their personal and professional values, producing negative moral and patient outcomes.

Facing traumatic stress, lack of support from the healthcare system and, often, active opposition from the community, emergency nurses felt discouraged and disengaged. Their identity as a nurse, often carefully constructed for years, was broken down. The reciprocal social relationships and purpose that had helped them to manage in difficult times was no longer effective. Even for the resilient, identity breaks down when these interactions no longer support a positive social identity or a sense of belonging in a valued group. A fracture in the social contract with the public has been particularly injurious for nurses. Professional identity is formed and continues to evolve throughout a nurse's career and is impacted by self-concept (enacting the role) and context (setting). A misalignment results in additional stress and difficulty in retention. Nurses who feel their nursing identity is fraying from unsupportive systems that violate their sense of being a nurse, leave the profession or change jobs. 46,47

Nurses in this sample reported feelings that vacillated between hopelessness and empowerment exercising their moral agency choosing actions that preserved their health, well-being, and integrity. Instead of viewing leaving as abandonment or failure, choosing to change their situation could be viewed as integrity preserving action.<sup>21</sup> Viewing their actions as indicative of their resilience, aligns with the quantitative findings that found that, despite their struggles, emergency nurses had high levels of general and moral resilience. The problem was not a deficit of resilience but rather that external circumstances limited their ability to enact their values. Harnessing their inner resources despite the adversity to do what is right personally and professionally is a hallmark of moral resilience. In this context, choosing to leave a position or the profession can be an ethical decision that demonstrates moral fortitude and integrity. Shifting the narrative from victimization to taking empowered action and exercising self-stewardship is critical in moving forward.<sup>48</sup>

This study has some limitations. Nurses were recruited from two institutions, and all were female. There were few nurses from ethnic/racial minority groups. Nurses that had already left the ER were not included. These factors limited the voices and perspectives of the unrepresented. Further research should examine the perspectives of emergency nurses not represented in this study. In particular, understanding the perspectives and needs of nurses who left the emergency department may be important for recruitment and retention.

#### **Implications for Emergency Nurses**

Moral injury and damage to nurses' identities must change from being understood as a rare or extreme event to something that many, if not most, nurses experienced during the COVID-19 pandemic. 49,50 This normalization process is important and has implications for administration and policy. First, we must recognize that "common" should not be taken as "acceptable;" the largest healthcare workforce in the United States is deeply wounded, which cannot be denied. Rather, normalization is acknowledging that the profound consequences of cumulative trauma and injury cannot be ignored or treated only at the individual level but as a systemic problem. Rather than seeing injured nurses as abnormal or the "problem to be fixed", managers and administrators must adopt a trauma-informed workplace approach that accepts nurses as being in a process of recovery and transformation. The impact on nurse's identity highlights the need to establish pathways for nurses to return to practice if they have chosen to leave jobs or the profession. Loss of identity may not be permanent; some nurses who experience trauma and moral injury may seek to return and administration must proactively seek to make this process welcoming and successful.

Nurses are frustrated with healthcare institutions and leadership. A lack of acknowledgement, unmet needs, and feelings of powerlessness during the pandemic have led nurses to feel betrayed.<sup>23</sup> The profession of nursing has been impacted significantly with changes in practice and delivery of healthcare.<sup>52</sup> A bold vision of transformation for the nursing profession is imperative to stimulate reinvestment into the profession following the pandemic. Pathways must be developed to reconnect and provide self-assurance to nurses that they will be supported by their organization and their voice will be

heard.<sup>53</sup> Nurses need encouragement to seek assistance with their mental health and well-being. Likewise, solutions are needed to prevent incivility towards nurses, including those who left during the pandemic and have returned to practice. Leaders need to provide a safe place for nurses to talk about feelings as well as have crisis response available when issues arise.

#### Conclusion

The consequences of the pandemic on nurses are likely to be long lasting. The levels of trauma experienced by emergency nurses eroded their identity as nurses and caused them to doubt that continuing as a nurse is a worthwhile professional decision. Nurses need to mend and rebuild their identity as a nurse. They will not heal without acknowledgement of their trauma, feelings of betrayal, and reconstruction of their professional identity. This will require sustainable system level interventions as well as individual supports. Betrayal from the organizations that were supposed to support them in their work sharply eroded their nursing identity and continues to impair efforts in rebuilding it. The solutions are not quick fixes but rather will require fundamental changes in the profession, healthcare organizations and society. These changes will require a strategic vision, sustained commitment, and leadership to accomplish.

# **Acknowledgements**

I would like to express my gratitude to Kathy Leach PhD, RN and Ashley Comeau Staff Nurse for their assistance with recruitment and data analysis of this study.

A special thanks to the Collaborative Nursing Faculty-Staff Research Grant Program for providing funding to support this study.

408		References			
409 410 411	1.	Hooper C, Craig J, Janvrin DR, Wetsel MA, Reimels E. Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. <i>Journal of emergency nursing</i> . 2010;36(5):420-427.			
412 413 414	2.	Hunsaker S, Chen HC, Maughan D, Heaston S. Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. <i>Journal of nursing scholarship</i> . 2015;47(2):186-194.			
415 416 417	3.	Meadors P, Lamson A, Swanson M, White M, Sira N. Secondary traumatization in pediatric healthcare providers: Compassion fatigue, burnout, and secondary traumatic stress. <i>OMEGA-Journal of Death and Dying</i> . 2010;60(2):103-128.			
418 419	4.	Pich J, Hazelton M, Sundin D, Kable A. Patient-related violence against emergency department nurses. <i>Nursing &amp; health sciences</i> . 2010;12(2):268-274.			
420 421 422	5.	Speroni KG, Fitch T, Dawson E, Dugan L, Atherton M. Incidence and cost of nurse workplace violence perpetrated by hospital patients or patient visitors. <i>Journal of emergency nursing</i> . 2014;40(3):218-228.			
423 424	6.	Dressner MA, Kissinger SP. Occupational injuries and illnesses among registered nurses. <i>Monthly Lab Rev.</i> 2018;141:1.			
425 426	7.	Roche M, Diers D, Duffield C, Catling-Paull C. Violence toward nurses, the work environment, and patient outcomes. <i>Journal of Nursing Scholarship</i> . 2010;42(1):13-22.			
427 428	8.	Sawatzky JAV, Enns CL. Exploring the key predictors of retention in emergency nurses. <i>Journal of nursing management</i> . 2012;20(5):696-707.			
429 430 431 432	9.	Tuttle E, Wisecup C, Lemieux E, Wang X, Modrykamien A. Critically ill patients boarding in the emergency department and the association with intensive care unit length of stay and hospital mortality during the COVID-19 pandemic. In: <i>Baylor University Medical Center Proceedings</i> . Taylor & Francis; 2021:1-4.			
433 434	10.	do Nascimento Rocha HM, da Costa Farre AGM, de Santana Filho VJ. Adverse Events in Emergency Department Boarding: A systematic review. <i>Journal of Nursing Scholarship</i> . 2021;53(4):458-467.			
435 436	11.	Dall'Ora C, Ball J, Reinius M, Griffiths P. Burnout in nursing: a theoretical review. <i>Human Resources for Health</i> . 2020;18(1):1-17. doi:https://doi.org/10.1186/s12960-020-00469-9			
437 438 439	12.	Rushton CH, Turner K, Brock RN, Braxton JM. Invisible moral wounds of the COVID-19 pandemic: Are we experiencing moral injury? <i>AACN Advanced Critical Care</i> . 2021;32(1):119-125. doi:https://doi: 10.4037/aacnacc2021686			
440 441 442	13.	Song YK, Mantri S, Lawson JM, Berger EJ, Koenig HG. Morally injurious experiences and emotions of health care professionals during the COVID-19 pandemic before vaccine availability. <i>JAMA Network Open</i> . 2021;4(11):e2136150-e2136150.			

- Hossain F, Clatty A. Self-care strategies in response to nurses' moral injury during COVID-19 pandemic. *Nursing Ethics*. 2021;28(1):23-32.
- Swavely D, Romig B, Weissinger G, et al. The impact of traumatic stress, resilience, and threats to core values on nurses during a pandemic. Published online In press.
- Herework KC. Institutional betrayal in nursing: A concept analysis. *Nursing Ethics*. 2021;28(6):1081-1089.
- 17. Raso R, Fitzpatrick JJ, Masick K. Nurses' intent to leave their position and the profession during the COVID-19 pandemic. *JONA: The Journal of Nursing Administration*. 2021;51(10):488-494.
- 451 18. Sheehan C, Tham TL, Holland P, Cooper B. Psychological contract fulfilment, engagement and nurse professional turnover intention. *International Journal of Manpower*. Published online 2019.
- 453 19. Hu H, Wang C, Lan Y, Wu X. Nurses' turnover intention, hope and career identity: the mediating role of job satisfaction. *BMC Nursing*. 2022;21(1):1-11.
- 455 20. Holtz H, Heinze K, Rushton C. Interprofessionals' definitions of moral resilience. *Journal of Clinical Nursing*. 2018;27(3-4):e488-e494.
- 457 21. Rushton CH. *Moral Resilience: Transforming Moral Suffering in Healthcare*. Oxford University 458 Press; 2018.
- 459 22. Foli KJ. A middle-range theory of nurses' psychological trauma. *Advances in Nursing Science*. 460 2022;45(1):86-98.
- Simonovich SD, Webber-Ritchey KJ, Spurlark RS, et al. Moral Distress Experienced by US Nurses on
   the Frontlines During the COVID-19 Pandemic: Implications for Nursing Policy and Practice. SAGE
   Open Nursing. 2022;8:23779608221091060. doi:https://doi.org/10.1177/23779608221091059
- Tajfel H, Turner JC, Austin WG, Worchel S. An integrative theory of intergroup conflict.
   Organizational Identity: A Reader. 1979;56(65):9780203505984-16.
- Tajfel H, Turner JC. Intergroup behavior. *Introducing Social Psychology*. Published online 1978:401-467 466.
- 468 26. Steffens NK, Haslam SA, Schuh SC, Jetten J, van Dick R. A meta-analytic review of social
   469 identification and health in organizational contexts. *Personality and Social Psychology Review*.
   470 2017;21(4):303-335.
- 471 27. Muldoon OT, Haslam SA, Haslam C, Cruwys T, Kearns M, Jetten J. The social psychology of 472 responses to trauma: Social identity pathways associated with divergent traumatic responses. 473 *European Review of Social Psychology*. 2019;30(1):311-348.
- Praharso NF, Tear MJ, Cruwys T. Stressful life transitions and wellbeing: A comparison of the stress
   buffering hypothesis and the social identity model of identity change. *Psychiatry research*.
   2017;247:265-275. doi:https://doi.org/10.1016/j.psychres.2016.11.039

- 477 29. Jetten J, Haslam SA, Cruwys T, Greenaway KH, Haslam C, Steffens NK. Advancing the social identity 478 approach to health and well-being: Progressing the social cure research agenda. *European Journal* 479 of Social Psychology. 2017;47(7):789-802.
- 480 30. Jetten J, Haslam SA, Iyer A, Haslam C. Turning to others in times of change. *The Psychology of Prosocial Behavior*. Published online 2009:139-156.
- Willetts G, Clarke D. Constructing nurses' professional identity through social identity theory. *International Journal of Nursing Practice*. 2014;20(2):164-169.
- 484 32. Creswell JW, Clark VLP. *Designing and Conducting Mixed Methods Research*. Sage publications; 485 2017.
- 486 33. Doyle L, McCabe C, Keogh B, Brady A, McCann M. An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*. 2020;25(5):443-455.
- 488 34. Polit DF, Beck CT. Essentials of Nursing Research: Appraising Evidence for Nursing Practice.
  489 Lippincott Williams & Wilkins; 2009. https://bhw.hrsa.gov/sites/default/files/bureau-health490 workforce/data-research/np-survey-highlights.pdf
- 491 35. Campbell-Sills L, Stein MB. Psychometric analysis and refinement of the connor–davidson
   492 resilience scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic* 493 *Stress: Official Publication of The International Society for Traumatic Stress Studies*.
   494 2007;20(6):1019-1028.
- 495 36. Christianson S, Marren J. The impact of event scale—revised (IES-R). *Medsurg Nursing*. 496 2012;21(5):321-323.
- 37. Creamer M, Bell R, Failla S. Psychometric properties of the impact of event scale—revised.
   498 Behaviour Research and Therapy. 2003;41(12):1489-1496.
- 499 38. Heinze KE, Hanson G, Holtz H, Swoboda SM, Rushton CH. Measuring health care Interprofessionals'
   500 moral resilience: validation of the Rushton moral resilience scale. *Journal of palliative medicine*.
   501 2021;24(6):865-872.
- 39. Brooks J, McCluskey S, Turley E, King N. The utility of template analysis in qualitative psychology research. *Qualitative research in psychology*. 2015;12(2):202-222.
- 40. Fereday J, Muir-Cochrane E. Demonstrating rigor using thematic analysis: A hybrid approach of
   inductive and deductive coding and theme development. *International journal of qualitative* methods. 2006;5(1):80-92.
- 507 41. Borges LM, Holliday R, Barnes SM, et al. A longitudinal analysis of the role of potentially morally 508 injurious events on COVID-19-related psychosocial functioning among healthcare providers. *PloS* 509 *One*. 2021;16(11):e0260033. doi:https://doi.org/10.1371/journal.pone.0260033
- 510 42. Fry-Bowers EK, Rushton CH. Who Will Be There to Care If There Are No More Nurses? The Hastings Center.[Internet]. 2021 [Consultado 03 Dic 2021].

512 513 514	43.	Rushton CH, Thomas TA, Antonsdottir IM, et al. Moral injury and moral resilience in health care workers during COVID-19 pandemic. <i>Journal of Palliative Medicine</i> . 2022;25(5):712-719. doi:https://doi: 10.1089/jpm.2021.0076	
515 516 517	44.	Murphy D, Ross J, Ashwick R, Armour C, Busuttil W. Exploring optimum cut-off scores to screen for probable posttraumatic stress disorder within a sample of UK treatment-seeking veterans. European Journal of Psychotraumatology. 2017;8(1):1398001.	
518 519 520	45.	Rash CJ, Coffey SF, Baschnagel JS, Drobes DJ, Saladin ME. Psychometric properties of the IES-R in traumatized substance dependent individuals with and without PTSD. <i>Addictive Behaviors</i> . 2008;33(8):1039-1047.	
521 522	46.	Chachula KM, Myrick F, Yonge O. Letting go: How newly graduated registered nurses in Western Canada decide to exit the nursing profession. <i>Nurse education today</i> . 2015;35(7):912-918.	
523 524 525	47.	Rudman A, Gustavsson P, Hultell D. A prospective study of nurses' intentions to leave the profession during their first five years of practice in Sweden. <i>International journal of nursing studies</i> . 2014;51(4):612-624.	
526 527	48.	Stovall M, Hansen L, van Ryn M. A critical review: Moral injury in nurses in the aftermath of a patient safety incident. <i>Journal of Nursing Scholarship</i> . 2020;52(3):320-328.	
528 529	49.	Amsalem D, Lazarov A, Markowitz JC, et al. Psychiatric symptoms and moral injury among US healthcare workers in the COVID-19 era. <i>BMC psychiatry</i> . 2021;21(1):1-8.	
530 531 532	50.	Riedel PL, Kreh A, Kulcar V, Lieber A, Juen B. A scoping review of moral stressors, moral distress and moral injury in healthcare workers during COVID-19. <i>International Journal of Environmental Research and Public Health</i> . 2022;19(3):1666.	
533 534 535 536	51.	Calma E, Sayin Y. The case for investing in trauma-informed management practices in the workplace: Knowledge, practice, and policy that can improve life outcomes in the District of Columbia. D.C. Policy Center. Published March 30, 2022. https://www.dcpolicycenter.org/publications/trauma-informed-management/	
537 538 539	52.	Al-Amin M, Hefner JL, Hogan TH, Li K. Sustainers: hospitals with sustained superior performance. Health Care Management Review. 2021;46(3):248-256. doi:https://doi.org/10.1097/HMR.0000000000000269	
540 541	53.	Bourgault AM. What Will the New Normal Look Like? <i>Critical Care Nursing</i> . 2022;42(3):8-19. doi:https://doi.org/10.4037/ccn2022577	
542			
543			
544			
545			
546			

Table 1 Foli's Middle Range Theory nurse specific traumas

Nurse specific	traumas	Examples from this study	
Vicarious/seco	ondary trauma	"The hardest part was seeing them see their	
•	Indirect trauma that occurs when exposed to difficult or disturbing images or stories	loved ones dying"	
Historical trau		Not discussed	
•	Multigenerational trauma experienced by populations historically subjected to long term mass trauma		
Workplace vio	lence	"It's more of dealing with the general public,	
•	Emotional, psychological, or physical trauma experienced due to direct assaults, threats, or harassment in the workplace	where it just becomes a drag. When I come into work, I'm like, who is going to yell at me tonight. People have been attacking staff when we tell them to put a mask on. Patients will say, you're wrong, you don't know what you are talking about."	
System induce	ed trauma	"I was just waiting for someone to die for us to	
•	Psychological trauma stemming from organizational systems that have been created to abate trauma	change our process. It was such a bizarre process, and it felt like we were hurting people. We didn't really know what we were doing. It was hard to go to bed at night"	
Insufficient res		"People have gotten out of nursing altogether	
•	Psychological trauma that occurs when there is a lack of knowledge, personnel, equipment, or supplies needed to perform professional duties	because COVID broke them. We keep trying to get our staffing back to where it needs to be but as soon as we get two people hired, four people leave."	
Second-victim	trauma	"He was my first patient that's ever died that I've	
•	Traumatic stress experienced by clinicians involved in incidents with harm to others for which they feel responsible	felt physically responsible. That sat with me for a long time. I mean, it just sucks because we need help in here."	
Trauma from o	disasters	"It's always hard. Every death or code hits me	
•	Psychological trauma experienced by clinicians who play an active role in natural disasters or traumatic events	differently. There have been times where I have to step away. Even if I don't know the person, I still have to mentally debrief from it"	

### 552 553

#### Losing identity as a nurse

Potentially moral injurious situations (RMRS mean 45.9, SD  $\pm$  4.6)

- "Basically, it's a cluster F-U-C-K, just how unsafe my job has gotten."
- "There have been times where it's been unsafe, and that—I was not okay with that. I went home crying one time, and it takes a lot for me to get that upset because I'm just so used to the ER. It's one thing to be drowning and to be exhausted. It's another thing for it to feel unsafe, which I'm not okay with for two reasons. One, for my patients, I don't want patients being in an unsafe environment, but, also, that's my license."
- "It's a crisis, when you have people in these rural areas, that you can't get up here because there's not a bed for them. When we're holding patients in the ER, for 36 hours because there's no bed. We're not trained to do that. When I've got 30 people out in my waiting room, that nobody's monitoring. I've got 30 people out there. They're sick. They're just waiting. It feels like a third world country. It just really does. This isn't how it's supposed to be."
- "I'm one person. I don't know what the heck I'm supposed to do. I have them on the monitor, no one else is helping me, and we were going back and forth. It was right before we did, once the doctor finally came in the room and we were intubating—or about to intubate that gentleman, the ICU doctor is calling to say, 'Actually, don't intubate,' so then the emergency room doctor and the ICU doctor are arguing. It was just this total chaotic feeling."
- "Why are we trying to keep this one, or this person alive. They're so old and their quality of life is
  not going to be good. Why are we intubating them and doing all this stuff to them? I don't think
  that's more—I don't think that's professional values."

#### Broken social contract with the community

- "Honestly, I feel like a lot of people are just won't take responsibility and won't stay home and won't get the vaccine and this could've ended a lot—maybe not ended, but could've been a whole lot better if people would've just acted like adults."
- "I feel like people who maybe would've been a little more restrained before this started are now—they just let loose and they don't care... I still have good patients that are nice, but a lot of people are just mean and don't care and we get yelled at."
- "I've noticed my coworkers, their very first question would be like, 'Are they vaccinated or not vaccinated?' because that's gonna change how they treat the patient, and that is extremely disheartening, and it shows a lot of people's true colors."

#### Betrayal by the organization

- "Oh, it's horrible. I've never wanted to cry at work and now pretty much want to every day.... we furloughed a bunch of nurses that left, didn't come back. I think a lot of people burned out; a lot of people got scared. Now, we have the nursing shortage."
- "My eyes have been opened up to, at the end of the day, it just feels like a hospital is still a business at the end of the day, and all they care about is making money...that's not why I joined nursing to begin with.... It just makes me question my entire career."
- "It was either Emergency Nurses Week or Nurses Week... but that's when they told us they were
  taking away our 401K match and all this other stuff. They weren't giving us raises or any of this
  other stuff. It was just kind of like you're dealing with all this shit, but you're not going to get any
  of this other stuff to make it worth it, so here you go."
- "When we got emails that we're low on PPE and you have to wear the same N95 for three, four, five shifts, and you have to send it off to hospital to have it cleaned, and then that process, after they realized wasn't even correct, that we had to stop doing that, or saving our isolation gowns."

- "Now, we're seeing a hundred patients a day, and there's nowhere for them to go. For the first time, I've worked in this ER for 17-18 years, we're boarding. I had a 93-year-old woman in the waiting room for six hours the other day, 93-year-old. That kills my heart. That is so hard to see. It's defeating is what it is."
- "You only get an email whenever you mess up. You never get an email like, 'Oh, you did a really good job. Pat on the back.' Nobody cares. Nobody cares at all, like, 'Okay, you triaged nine people in 30 minutes.' Nobody cares at all. You only get called out if you do bad things. The only emails I get, it's like, 'Oh, you forgot to raise that two milligrams of morphine in the Pyxis. Don't forget.' It's just stuff like that... they send out the weekly huddle, and random people get a kudos, but I don't know. I don't feel like you get recognized."
- "They post little pieces of paper in the bathroom, like, 'Oh, okay, you can reach out to this therapist,' but, I mean, that's pretty much it, so then if you do that, then you're gonna get labeled like, 'Oh, okay, well, [Nurse] had to go therapy because she's having anxiety or PTSD,' blah, blah, blah, and then, 'Oh, I don't think we can talk to her that way.' You know what I mean? Nobody wants to get—and that's such a big stigma that shouldn't be that way of being labeled like that."
- "I think it is too hard because you hear these people that are like leaving here and going to travelers, and they're making \$100 an hour, and these are people that have been nurses for less than two years. Then here, I've been a nurse for nine."

Traumatic stress responses to the experience of being a nurse during COVID (IES-R median 28 range 8-73)

- "I just feel empty. It just feels like I come into work. I do my job.
- "I have anxiety before I go into work, the night before. I have anxiety walking into work. I have anxiety the entire time I'm at work, and the only sense of peace that I feel that day is walking out, knowing like, 'Oh, I get to go home. Thank God. I made it through.' I mean, it's hugely impacted. I can't talk about work. I used to be able to talk about work. I don't want to talk about work."
- "I'm taking care of these patients. I'm trying not to bring this stuff home. I'm trying to be safe myself so then I don't get COVID, and then there's that anxiety of taking care of these patients that this is my job. I need to do that, but then I also don't want to get COVID or something to happen to this baby that I've tried seven years for and just did all of those things, and it finally worked. I just felt like there was a lot of anxiety with it."
- "Oh, it's horrible. I've never wanted to cry at work and now pretty much want to every day.
- "I think mental health was a huge challenge at that point, at least for me"
- "I just try to explain the mental and emotional stress of it is exhausting."

# Hopelessness and self-preservation (CD RISC 10 mean 31.2, SD $\pm$ 4.6)

- "I'm just not as happy as I normally would be. Because I watch the news and stuff and I come home from here and I'm just maybe in a bad mood, would be more often than I normally would be. I try not to be, and I just don't want to go."
- "Mm-hmm. I feel like, 'cause I still go in and I do what I'm supposed to, but like I don't—I won't talk to people. I just go in and I do what I'm supposed to. I don't want to make that sound like I'm not doing what I'm supposed to, 'cause I'm taking care of people. I'm definitely doing that, but I'm not as maybe talkative and stuff 'cause I've got a bunch of stuff to do. I just want to get it done. I just want to get through my shift and get out of here."
- "Even if they gave those resources, I feel like it's not gonna make a change, and that's a big reason why I'm leaving. It just feels like there's just no end in sight. We don't have the resources. Staffing-wise, if they would address that issue, that would help a lot. A pay increase, that would always be nice. I don't even think I have an answer for that one on the least. I'm sorry. [Laughter]"

- "We had people quit to go travel because why wouldn't you go make more money than doing this, if you're gonna get yelled at. You might as well go do this and make money."
- "We had people quit to go travel because why wouldn't you go make more money."
- "I physically need to remove myself, so I've been searching for a job since August. People are always like, 'Oh, I'm getting out of here,' and I never thought I would get to that point. It just was so heartbreaking, but it's gotten to that point 'cause this was a great place to work. I love my coworkers. It's just pushed me over the edge to where the night before I go into work, I can't sleep. I have so much anxiety. It's been keeping me up at night. Walking into work, I just have no idea what's gonna happen. I mean, that's how the emergency room kind of always is, but it's just gotten so much worse."
- "We have no choice. The only choice we have is to quit, and where that's gonna get us? Because every single job is like this now."