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Burnout and Shared Trauma Rates Among Hospital Employees Due to COVID-19

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ABSTRACT

COVID-19 has caused job stress and exhaustion across all areas of healthcare, and especially in hospitals as they have tried to cope with wave after wave of case surges. Two years into the pandemic, we have more treatments, and the development of vaccines has changed the risk and infection rates, so hospitals are not as overwhelmed. However, we are still seeing concerning staff shortages in healthcare, and it is being attributed to burnout caused by the effect COVID has had on work environments. This study measured rates of shared trauma, perceived organizational support, and burnout among rural healthcare workers in West Texas, and hypothesized that shared trauma would increase rates of burnout, organizational support would decrease rates of burnout, and organizational support would moderate the effect of shared trauma on burnout. The study found no easy explanation for a relationship between these factors and suggests that previous studies might have underestimated the complexity of these relationships. It is also possible that personal opinions on COVID may be affecting scores in this study, so future research should consider controlling for perceptions about COVID and investigate this potential confounding variable.

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CHAPTER I

INTRODUCTION

Problem Statement

Over the past two years, COVID-19 has changed life around the world. The high infection rates and long incubation period have contributed to its rapid spread across the entire globe (Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021; Ross et al., 2021; Santarone et al., 2020; Shreffler et al., 2020; Swift, 2020; Szczygiel & Emery-Fertitta, 2021). There has not been a pandemic on this scale in a century, and it overwhelmed healthcare systems everywhere (Braquehais et al., 2020; Kramer et al., 2021; Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021; Ross et al., 2021; Santarone et al., 2020; Shreffler et al., 2020; Szczygiel & Emery-Fertitta, 2021). For months, it seemed the only news available was about the coronavirus: information on how it spreads, tutorials for mask making and usage, new public health guidelines and stay-at-home orders from governments, changing quarantine procedures, stories of hospitals running out of beds and patients not receiving care, interviews with exhausted physicians and nurses, and more (Lewis, 2021; Shreffler et al., 2020; Swift, 2020; Szczygiel & Emery-Fertitta, 2021; Vo, 2021; Zhu et al., 2020). For the majority of the public, life was turned upside down as schools and businesses closed and things shifted to online platforms and people learned how to work from home and juggle work, childcare, school, and the inability to leave the house except for absolute essentials (Fiore, 2020; Lewis, 2021; Swift, 2020; Szczygiel & Emery-Fertitta, 2021). Some are now considering the pandemic to

potentially be collective trauma, as everyone across the globe has been affected by the risks and public safety measures and the never-ending worry and concern about personal health and the health of friends and family (Holmes et al., 2021; Lewis, 2021; Shreffler et al., 2020; Swift, 2020; Szczygiel & Emery-Fertitta, 2021).

However, this was only part of the story for healthcare professionals. Doctors, nurses, therapists, social workers, healthcare administrators, and many others still needed to show up to work in person each day to help fight the virus and maintain healthcare systems, and they not only had to worry about their very sick patients coming in massive numbers; they had to worry about becoming infected, personal protective equipment (PPE) shortages, spreading infection, taking care of family at home, and taking care of their mental health as they limited as much supportive contact as possible while they were surrounded by heightened levels of stress, fear, infection, and death (Booth & Venville, 2020; Braquehais et al., 2020; Fiore, 2020; Holmes et al., 2021; Kramer et al., 2021; Lewis, 2021; Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021; Ross et al., 2021; Santarone et al., 2020; Shreffler et al., 2020; Swift, 2020; Szczygiel & Emery-Fertitta, 2021; Vo, 2021; Zhu et al., 2020). Especially in the early stages of the pandemic, infection rates among healthcare professionals were high, causing a large portion of staff to be sick and/or in quarantine and leaving fewer staff members than normal to provide care, contributing to increased responsibilities and work hours, to sometimes excessive degrees (Braquehais et al., 2020; Kramer et al., 2021; Liu et al., 2020; Lu et al., 2020; Santarone et al., 2020; Shreffler et al., 2020). Best practice recommendations were updated daily as more was discovered about the virus, so workers were constantly having to adapt to new information and situations (Booth & Venville, 2020; Braquehais et al.,

2020; Kramer et al., 2021; Lewis, 2021; Ross et al., 2021; Santarone et al., 2020; Shreffler et al., 2020; Vo, 2021; Zhu et al., 2020). Administrators had to make difficult policy decisions restricting visitors, preventing family from seeing loved ones before they passed away, allocating PPE, maintaining and supporting exhausted staff, and preparing for seemingly inevitable worst-case scenarios (Booth & Venville, 2020; Lewis, 2021; Santarone et al., 2020; Shreffler et al., 2020; Swift, 2020). Healthcare professionals of all types seem to have been exposed to so much additional stress than they were regularly prepared for before the coronavirus, and much more than the rest of the general population experienced during even the most fearful and intense times in the pandemic (Braquehais et al., 2020; Holmes et al., 2021; Kramer et al., 2021; Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021; Santarone et al., 2020; Shreffler et al., 2020).

Now, after nearly two years of living in a pandemic, there are COVID vaccines that seem to be largely effective at reducing hospitalizations and deaths, but outbreaks, new variants, and waves of increasing infection rates still occur and there is no cure for the virus (Szczygiel & Emery-Fertitta, 2021). This extended strain and increased workload on our American healthcare systems and professionals seems to be contributing to higher levels of stress, anxiety, and depression, and is potentially contributing to the current nursing staff shortage (Holmes et al., 2021; Kramer et al., 2021; Lu et al., 2020; Morse & Dell, 2021; Santarone et al., 2020; Shreffler et al., 2020; Vo, 2021). It does not seem like much has been done on a large scale to understand or intervene and address these staffing issues, and if something is not done soon, American healthcare may soon be facing a collapse (Santarone et al., 2020; Shreffler et al., 2020).

Mental health issues seem to have gained more awareness in the general public throughout the pandemic. This seems to partially be due to both increased stress and fear causing new anxiety and depression to emerge as well as causing individuals that have previously dealt with mental health issues on their own to seek treatment (Braquehais et al., 2020; Holmes et al., 2021; Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021; Ross et al., 2021; Santarone et al., 2020; Shreffler et al., 2020; Swift, 2020; Zhu et al., 2020). It stands to reason that if healthcare workers have had more exposure to stress during the pandemic than the general public, the rates of need for mental health support among healthcare workers would also increase (Braquehais et al., 2020; Holmes et al., 2021; Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021; Ross et al., 2021; Santarone et al., 2020; Shreffler et al., 2020; Szczygiel & Emery-Fertitta, 2021; Vo, 2021; Zhu et al., 2020).

As studies prior to COVID-19 have shown, healthcare workers experiencing burnout can commit more medical errors, have less empathy for patients, are less efficient, and are more likely to quit their jobs (Penwell-Waines et al., 2018). This puts the healthcare organizations that employ them at greater risk for malpractice lawsuits, wasting resources, and having to constantly hire and train new employees, costing more time and money. This also takes away resources from patient care, which can end up perpetuating the same issues, causing poorer patient care, more burnt out staff, and healthcare systems being drained of resources faster. During COVID, these problems become even more dramatic and costly, as resources are already stretched to their breaking point and the whole system is more overwhelmed than it ever has been before.

Previous Research

To address the problem previously described, a literature review was conducted to explore scholarship regarding burnout among hospital staff and to identify research needs that can be addressed by a new study. This review found several different terms describing different experiences of trauma that could potentially apply to what healthcare workers are experiencing.

Several studies have researched on similar and related concepts regarding stress of hospital workers including secondary traumatic stress, vicarious trauma, compassion fatigue, shared trauma, and burnout (Bride et al., 2004; Holmes et al., 2021; Molnar et al., 2017; Szczygiel & Emery-Fertitta, 2021; Tosone et al., 2016). *Shared trauma* refers to the dual exposure to trauma that clinicians experience when they are experiencing the same trauma that their client is experiencing (Tosone et al., 2012, 2016). This dual exposure can make it difficult for clinicians to identify where their experience stops and the client's begins and can cause extra burden and even re-traumatization for clinicians, and has great potential for impacting client treatment negatively.

For years, burnout has been studied and quantified by levels of emotional exhaustion, depersonalization, and reduced personal accomplishment, and has been generally understood to be caused in part by workplace factors, although not all research seems to agree on what those factors are. Generally, however, increased workload and stress and lack of support seem to be major factors, and it is easy to see how COVID-19 has increased workload and stress and made it harder for workers to find meaningful support and connection. There also seems to be an overlap between the burnout components of emotional exhaustion, depersonalization, and reduced personal

accomplishment and some of the types of trauma, especially when combined with the increased workload and stress and lack of support. This rationale is what has led this study to attempt to better understand what type of trauma hospital workers seem to be presenting and whether their level of burnout seems to be related.

Research Gaps

The literature review of this study has identified various studies on the increased stress and burden among health care professionals due to the coronavirus pandemic. While this previous research has already been helpful, there are still some gaps in the research that can contribute to making meaningful changes to alleviate the burdens of health care professionals in the midst of this pandemic.

First, research does not yet seem to have much data describing the specific trauma healthcare professionals are facing through the various waves and variants this pandemic has brought. There is a lot of research detailing increased rates of anxiety, depression, increased work related stress, and suicide risk for healthcare professionals since the onset of COVID-19 (Braquehais et al., 2020; Holmes et al., 2021; Kramer et al., 2021; Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021; Zhu et al., 2020). However, very little of this research seems to capture the nature of the trauma that healthcare workers have experienced, and mostly just measures a few of the effects it seems to have had.

Second, most studies so far have focused on nurses or just general healthcare professionals, but a few have focused specifically on the experiences of all departments or compared the experiences of different roles (Kramer et al., 2021; Lu et al., 2020; Morse & Dell, 2021; Ross et al., 2021). This could stem from a variety of reasons. Healthcare systems have been so overwhelmed that funding and research may have

mostly been dedicated to fighting the viral pandemic instead of also focusing on the mental health epidemic (Booth & Venville, 2020; Morse & Dell, 2021; Santarone et al., 2020). It is also sometimes difficult to get review board approval for studies within healthcare settings. Healthcare workers may have been less motivated or willing to participate in research studies due to the exhaustion and stress they may be facing (Braquehais et al., 2020). This is also such a recent phenomenon that there has not been much time for experimental research or longitudinal studies to be performed focusing on mental health and prevention & treatment options for burnout (Liu et al., 2020; Lu et al., 2020; Morse & Dell, 2021).

Third, few studies have attempted to measure the experiences of various professions in the same hospital setting. While studies focusing on one profession at a time may help get a more in-depth look at their experiences, we cannot assume that they hold true for everyone in that profession due to differences in management and procedures and COVID-19 levels between hospital systems. Because of this, we also cannot infer that the experience of one profession could be representative of other healthcare professions. Studies that focus on the experiences of multiple professions in the same setting would help researchers control for organizational factors, such as management styles, the rise and fall of COVID-19 infection and hospitalization rates, and even differences in the regional perception of COVID-19. This could provide a new perspective on how different professions have been affected by the coronavirus and help organizations provide more targeted support or make changes within specific departments to help ease the burden of providing care.

Fourth, some meaningful initial analyses and recommendations need to be confirmed by studies with more rigorous research methods. There are several first hand perspectives published in journals describing the working experiences of various professionals (Dragwidge, 2021; Fiore, 2020; Lewis, 2021; Szczygiel & Emery-Fertitta, 2021; Vo, 2021), but these offer no hard data, just qualitative perspectives that often emphasize a need for further research. Many call their experience a kind of trauma or burnout, but few provide any sort of data or detailed explanation to go along with this. News stories and articles offer even more chilling interviews with healthcare workers that seem to be traumatized, but this again needs more scholarly research to better understand what is going on.

Fifth, few studies have focused on measuring trauma or attempting to categorize the experience of healthcare workers as one of the previously mentioned forms of trauma commonly experienced among helping professions. Without categorizing it or quantifying it, it will be very hard to help provide resources or make meaningful changes that could help alleviate the stresses that healthcare professionals are facing and provide some treatment or support for them.

As has been mentioned, there are some significant research gaps due to the novelty of the coronavirus and the general focus on medical research instead of the mental health crisis healthcare professionals seem to be facing. Overall, it seems that there is a clear need to address this burnout and mental health crisis among healthcare professionals, but there does not seem to be a clear way to go about addressing the issue due to current research limitations. By better understanding the experiences of health care

professionals, we may begin to find ways to help alleviate some of the extra stressors or provide additional supports in order to decrease burnout among staff.

The Present Study

This study proposes to examine the experiences of healthcare workers through different established trauma lenses in order to determine which theoretical perspective best describes the issues that workers are facing, which could in the future lead to more direct interventions to help healthcare professionals recover from trauma and prevent burnout from occurring. This study will also attempt to capture the amount of perceived support that the healthcare organizations in the sample are offering employees and whether employees feel like this support has actually been helpful.

This study will attempt to bridge the research gap by examining both levels of burnout and shared trauma among healthcare workers, as well as assessing the organization's capacity to provide support for their healthcare workers during COVID-19. The purpose of the present study is to explore factors of burnout of direct patient care hospital workers during the COVID-19 pandemic in hopes of learning how to address these factors and create healthier work environments. With this information, the researcher hopes better recommendations can be made for addressing mental health issues that may be contributing to increased burnout and staff turnover rates.

Limitations

This study has many limitations. Firstly, the medical experience of COVID has been incredibly diverse. Surges and infection rates have differed widely over geographic areas over the past two years, so the experience of an urban hospital worker and a rural hospital worker may be very different. The wide variety of opinions on COVID among

the general public may also affect the experiences of each healthcare worker differently as they interact with coworkers and patients who hold different opinions. Secondly, the external validity is an issue in generalizing the findings from the convenience sample of this study, which includes hospital workers from non-profit healthcare systems. Because different business models and hospital protocols will have affected how each hospital system approached services during COVID differently, employees in for-profit hospitals may have had fewer issues finding resources for funded patients than social workers in non-profit hospitals dealing with unfunded patients as well as funded patients and may have felt more competent in their ability to do their job, which could affect their rates of burnout and turnover. Still, this contribution may help to improve understanding of burnout among medical professionals in general.

CHAPTER II

LITERATURE REVIEW

The purpose of this literature review is to explore scholarship regarding burnout among hospital staff and to identify research needs that can be addressed by a new study. In order to properly understand how COVID-19 has affected the mental health of staff in hospital settings, it is useful to include both new studies focusing specifically on mental health during COVID and studies prior to COVID studying the regular process of burnout and what is normally done to combat it. This review seeks to answer the following questions: 1) How has COVID-19 impacted the mental health of medical professionals? 2) What are the possible contributing factors of burnout among hospital staff (e.g., shared trauma; supervision as a potential moderator)?

While the focus of this review was originally specifically on the mental health of social workers, due to the novelty of COVID, there is not much research available, so this researcher shifted to focus on the mental health of all healthcare workers. Frequently used terms include *healthcare workers*, *health professionals*, *healthcare professionals*, and *hospital staff*. Special attention was paid to information concerning issues that burnout can cause, such as malpractice, job retention, and staff turnover, as well as potential protective factors that could limit the negative effects of burnout. As the review proceeded, additional attention was paid to terms related to burnout, such as *compassion fatigue*, *vicarious trauma*, *secondary traumatic stress*, and *shared trauma*, as these seem to be used in the context of the effect COVID has had on healthcare workers.

This review of literature was conducted by doing a systematic review of the literature available through the ACU Library database using the terms SU (covid-19 or coronavirus or 2019-ncov or sars-cov-2 or cov-19) AND SU hospital AND SU "social work*". Results were further limited to only include peer-reviewed articles with the full text available and written in English. This resulted in 33 articles, which were further reviewed, and 10 articles were selected based on their titles and abstracts. These articles were read thoroughly, and their references examined for further useful research. From this, a further 19 articles have been selected and deemed relevant to understanding burnout and the mental health of hospital workers during COVID-19, resulting in a total of 29 articles being used to complete this literature review. Burnout among human service professions has been a topic of research since the 1980s, so some articles discussing understanding of burnout and the creation of different scales were included for historical perspective. Articles concerning COVID-19 have only been published within the last two years due to the novelty of the virus (as of the time of writing). This search was initially conducted during September and October of 2021, with additional articles being added as they became relevant or were published.

COVID-19's Effect on Healthcare Professionals

Over the last two years, the globe has been shaken by the arrival of the COVID-19 virus and its overwhelming impact on healthcare facilities and resources. People all over the world have gone into lockdowns, quarantines, and isolation precautions to help slow the spread of the virus. This was done to help health care facilities and personnel to avoid being overwhelmed and to continue providing quality health care, even without any form of treatment or cure and, for a long while, without a vaccine. However, medical

settings have still been radically affected by the pandemic, and the effects of this experience will probably be felt for many years to come. There have been countless news stories and editorials and television episodes and special announcements in media surrounding what healthcare personnel have experienced over the past two years, but for those outside the medical system, it is hard to understand the dramatic impact it has really had. Some research has attempted to describe the difference; Santarone, McKenney, and Elkbuli (2020) described the difference between the pre-pandemic ability to leave work and seek support from friends and family and the way that the pandemic has added stress to that, as many healthcare workers worry about spreading COVID-19 to their family and friends, making finding adequate emotional support even harder. While this helps start to paint a picture of the increased level of stress healthcare workers are under, this quote seems to better describe the change in workplace stressors:

> The high morbidity and mortality rates of this pandemic, the shortage in personal protective equipment, the fear of they or their family members becoming infected, the absence of an effective treatment/vaccine on the immediate horizon and the new restrictive public health policies activated in most countries, have changed their normal scenario. (Braquehais et al., 2020, p. 615)

Several other accounts (Braquehais et al., 2020; Fiore, 2020; Morse & Dell, 2021) also mention how the new safety precautions put in place to limit exposure in medical settings also meant that there was less peer support available to workers, leaving them feeling even more isolated and alone.

Several studies (Kramer et al., 2021; Lu et al., 2020; Morse & Dell, 2021; Shreffler et al., 2020; Zhu et al., 2020) have attempted to capture the impacts of this

change with quantitative measures. Generally, these studies have found that among healthcare workers, depression, anxiety, fear, psychological stress, burnout, suicide, emotional exhaustion, psychological disorder, and burden have increased, while work satisfaction and experienced support decreased. This has been found to be the worst among doctors and nurses working on COVID-positive wards, as they generally have the closest contact with infected patients (Kramer et al., 2021; Lu et al., 2020; Shreffler et al., 2020). Hospital workers seem to have felt an overwhelming sense of powerlessness and helplessness through the pandemic as it has been harder to provide support to patients and families either in person or virtually, and resources have been stretched to their limits and further still, causing further emotional strain and dissatisfaction with work and difficulty maintaining boundaries (Booth & Venville, 2020; Dragwidge, 2021; Lewis, 2021; Ross et al., 2021; Vo, 2021). Lewis (2021) also describes the experience of "sitting with human suffering, trying to ameliorate it through human, distanced contact, wondering if that suffering would visit you soon," as one of the hardest emotional burdens (p. 49).

These experiences and symptoms of trauma that have been described seem to fluctuate a little as COVID infection and hospitalization rates in geographic areas rise and fall, possibly providing periods of slight relief and a return to a work atmosphere better resembling life pre-COVID (Liu et al., 2020). However, studies also seem to agree that generally, "the more [healthcare workers] were exposed to unexpected life-threatening situations or uncertainty, the more mental distress they were likely to experience," and these negative effects are predicted to leave a traumatic impact on those in this field (Braquehais et al., 2020, p. 3; Swift, 2020). As healthcare workers are experiencing this

trauma due to COVID-19, the same source of the trauma patients and families experience, it seems to put them at great risk of shared trauma.

Fewer studies have taken the time to further distinguish between different professions in the health care field, and those that have mostly focus on the experiences of doctors and nurses. A few studies (Booth & Venville, 2020; Dragwidge, 2021; Holmes et al., 2021; Lewis, 2021; Morse & Dell, 2021; Ross et al., 2021; Szczygiel & Emery-Fertitta, 2021; Vo, 2021) also focus on the impact COVID-19 has had on hospital social workers. Most of the literature so far are descriptive studies and editorial reports of social workers' experiences, and while this is helpful for understanding, it is also harder to demonstrate the changes that have arisen and the effects they have had on medical social workers. Morse and Dell's study (2021) found that approximately one fifth of social workers self-reported experiencing burnout, but people experiencing burnout are not very motivated to ask for help or reach out, so it can be assumed they may not self-report accurately either. Another study conducted using the Shared Trauma and Professional Posttraumatic Growth Inventory (STPPG) found that about 64% were experiencing burnout symptoms and 50% were exhibiting shared trauma symptoms (Holmes et al., 2021). As these studies conflict, general conclusions cannot be drawn, and further study is needed to see what burnout and shared trauma rates are. Further research should also be done on interventions that can help address both issues to help prevent massive job turnover post-COVID.

The field of trauma research has expanded in the past few decades to encompass several more specific terms for different experiences of stress due to working in helping professions and with trauma victims. The term *compassion fatigue* was developed to

describe the emotional stress and burden caused over time by the "cost of caring" for clients that have experienced trauma (Tosone et al., 2012). Measurement tools like the Compassion Fatigue Self-Test (CFST) have been developed to measure an individual clinician's risk of compassion fatigue (Molnar et al., 2017). Another related term, *vicarious trauma*, also can be a result of working with traumatized clients, but refers more to the permanent alterations in a clinician's sense of self and worldviews as a result of their work with trauma victims (Tosone et al., 2012). *Secondary traumatic stress* (STS) is another related term, somewhat similar to posttraumatic stress disorder (PTSD) but the clinician's only exposure to the traumatic event is secondary though their client (Tosone et al., 2012). STS puts clinicians at risk for errors such as "misdiagnosis, poor treatment planning, or abuse of clients . . . secondary traumatic stress is one reason why many social workers and other human service professionals leave the field," (Bride et al., 2004, p. 33). Bride, Robinson, Yegidis, and Figley worked together to develop the Secondary Traumatic Stress Scale (STSS) to measure the frequency clinicians experience symptoms (2004), and this scale has already been used extensively with workers to try to address STS and prevent burnout (Lee et al., 2018; Molnar et al., 2017). However, these terms only serve to address the trauma caused to workers when they only have exposure to trauma through the experiences of their clients and not when the work environment itself is causing workers trauma. In order to better understand the traumatic work environment COVID has created for healthcare workers, researchers should also focus on the study of burnout.

Burnout has been discussed among various professions over the last few decades, mostly starting with research done in the 1980s. Initial theories of burnout described three

components of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach & Jackson, 1981). These components were further researched, and definitions soon developed: emotional exhaustion describes the experience of feeling overextended and drained by working with people, depersonalization describes a growing emotional distance and lack of empathy between a service provider and those they serve, and reduced personal accomplishment describes the frustration that comes from feeling less competent and successful in your job (Leiter & Maslach, 1988). These components helped to conceptualize the relationship between clinician's work life experiences and their possibility of experiencing burnout, as well as explain why burnout can be an effective predictor of job turnover. Emotional exhaustion coupled with emotional distance and dissatisfaction with work can often lead to employees becoming less dedicated to their work and more prone to withdrawing from it and quitting their job (Leiter & Maslach, 1988). This was later used to explain "lower productivity, more absences, and lower retention rates resulting in higher turnover," finally explaining the relationship between burnout and turnover (Penwell-Waines et al., 2018, p. 295).

While this initial research did a lot to spark interest in burnout and created awareness of the issue, it is also flawed: the tool developed to measure burnout, the Maslach Burnout Inventory (MBI), actually only measures emotional exhaustion, depersonalization, and personal accomplishment and states that each score should be interpreted individually, meaning there is no real burnout score identified (Maslach & Jackson, 1981). The results can confidently be used to measure the three factors of burnout, but cannot measure burnout as a whole or determine the severity of an individual's burnout, which leads to issues recommending treatment and intervention

options, according to newer research (Schaufeli et al., 2020). Recognition of these limitations led to the recent development of the Burnout Assessment Tool (BAT), which identifies four core elements of burnout—exhaustion, cognitive impairment, emotional impairment, and mental distance—as well as three secondary elements that often cooccur with burnout and are often the reasons why individuals seek treatment for burnout: depressed mood, psychological distress, and psychosomatic complaints (Schaufeli et al., 2020).

Factors of Burnout Among Healthcare Professionals in the COVID Context

Impact of COVID-19 as Shared Trauma on Burnout

Given the broad influence of COVID-19, it is difficult to examine its impact by comparing healthcare professionals who have been influenced and who have not. A recent study (Holmes et al., 2021) considers COVID-19 to be *collective trauma*, meaning that an entire society has experienced threat and stress due to the same source. Examples of collective trauma could include hurricanes, tsunamis, earthquakes, and even terrorist attacks. COVID's dramatic effect on our entire society means that we have all faced its repercussions in every sphere of our lives, but none more so than the healthcare professionals that treat patients in the context of COVID. Because these healthcare workers experience the collective trauma in their personal life and work closely with it every day in their work, healthcare professionals are receiving a dual exposure to this trauma, which qualifies their experiences as shared trauma. Given several studies (Holmes et al., 2021; Lee et al., 2018; Leiter & Maslach, 1988; Tosone et al., 2012, 2016) reporting the association between trauma and burnout, this study proposes to use shared trauma as a factor of burnout.

Shared trauma can occur when a helping professional and a service recipient have both experienced the same traumatic event and are both still processing that event (Tosone et al., 2012). Their experiences may parallel each other or be completely different, but their emotional and mental reactions to those experiences can become easily confused and even harder to process in a therapeutic setting (Tosone et al., 2012). This can put both clients and professionals at risk, especially if the professional does not recognize how affected they have been by the trauma. If they are not able to properly identify how they have been affected, this could lead to more mistakes and less competent practice as well as allowing the trauma to go on untreated for longer, potentially putting workers at greater risk for burnout and depression, anxiety, traumatic stress disorders, and the like. This topic has mainly been discussed in the aftermath of events like 9/11, Hurricane Katrina, terrorist violence, or school shootings, as it is rare that a helping professional and a client are experiencing the same trauma at the same time unless it is because of a mass community event. It has not really been discussed in a situation of ongoing, continuing trauma such as living in a pandemic for two years, so the term may not actually apply as well as it at first seems to.

The concept of shared trauma was first mentioned in the 1940s during the London Blitz in World War II as civilians lived and worked in a traumatic environment for years, but this was soon dropped in favor of research focusing on PTSD and the experiences of soldiers and those that witnessed trauma firsthand (Szczygiel & Emery-Fertitta, 2021). The concept was then reintroduced post-9/11 as community traumatic experiences like terrorism, school shootings, and natural disasters started to gain more attention and media exposure (Szczygiel & Emery-Fertitta, 2021). Tosone, Nuttman-Schwartz, and Stephens

have defined shared trauma as "the affective, behavioral, cognitive, spiritual, and multi-modal responses that clinicians experience as a result of dual exposure to the same collective trauma as their clients" and emphasize that this dual exposure increases the clinician's risk of PTSD and the blurring of personal and professional boundaries (2012, p. 233). This is potentially a huge issue, recognized by Szczygiel and Emery-Fertitta in light of the COVID-19 pandemic, asking "if both the client and therapist are experiencing trauma symptoms in response to the same event, how can the clinician accurately decipher between the threads of her own experience and that of the client?" (2021, p. 140). However, due to the rare nature of shared trauma, there is relatively little research available on the topic of shared trauma and possible interventions. So far, recommendations have been made for further research and for advocacy within organizations for better support when workers experience shared trauma, but these recommendations are very general and do not give much practical advice for healthcare workers experiencing shared trauma (Tosone et al., 2012).

Organizational Support as a Buffer for the Impact of Shared Trauma on Burnout

Leiter and Maslach (2003) explained that the experience of burnout is "a cumulative reaction to ongoing occupational stressors . . . it tends to be fairly stable over time" (p. 93). Researchers generally seem to agree that burnout is not a sudden development, but "a gradual, pathological process whereby symptoms of emotional exhaustion can develop due to the psychological strain of working with multiple stressors," (Tosone et al., 2012, p. 232). Because of this gradual nature, it seems that there are no quick fixes or easy solutions to solve burnout and help employees protect themselves. However, there are general recommendations that future research focus more

on researching intervention strategies on both the individual and organizational level, to better address both the personal and work life factors that contribute to burnout (Morse et al., 2012).

Burnout seems to be self-perpetuating in a sense, as the experience of burnout seems to make healthcare workers less likely to seek out help to address the issues they are experiencing. Without proper organizational structure and procedures to help hospital workers experiencing burnout, help seeking and receiving can be experienced very negatively and create feelings of inequality or inadequacy among staff, according to Barrera (1986). Feelings of guilt or shame are likely to contribute to the emotional exhaustion a worker might already be feeling, making it more difficult for them to ask for help (Barrera, 1986).

Later research done by Leiter and Maslach developed 6 main factors that lead to burnout, called the Areas of Worklife Model (2003). These areas are listed as "workload (i.e., too many job demands), control (having autonomy and resources to meet demands), presence of appropriate rewards or recognition, a cohesive work community, perceived fairness with regard to decision-making, and values alignment between employee and organization," (Penwell-Waines et al., 2018, p. 296). These six factors detail workers' experience of each factor and thus can help predict levels of burnout that workers experience (Leiter & Maslach, 2003).

While these six factors describe the general environment of an organization in a normal context, the traumatic conditions caused by COVID-19 may have impacted the roles each factor plays. An additional factor may be needed to describe the way organizations attempted to adapt and further support their employees. Some studies have

noted that employees that felt acknowledged and valued tended to experience more work satisfaction, which can be a protective factor against burnout (Booth & Venville, 2020; Morse & Dell, 2021; Ross et al., 2021; Tosone et al., 2012). A few researchers have started to consider this and have termed it organizational support or organizational capacity, and started developing and testing methods to try to measure the amount of support employees feel their organization provides (Holmes et al., 2021). By placing focus on both helping individual clinicians address their own personal burnout and helping organizations understand the role that work life atmosphere and available resources can play in contributing to burnout, research may be able to help reduce the amount of burnout that clinicians experience in the field and help reduce turnover rates that can contribute to poorer outcomes for the clients they serve.

Conclusion of Literature Review: Implications for a New Research

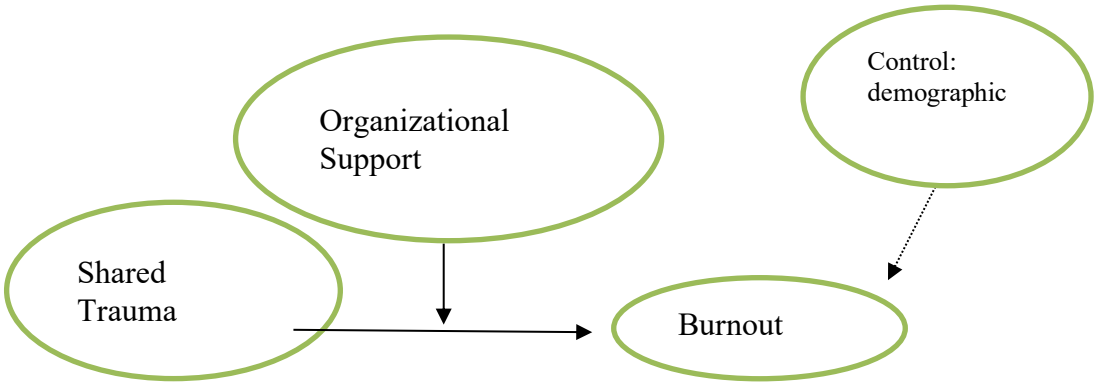
This literature review attempted to explore some impact of COVID-19 and the factors of burnout and the increased risk healthcare professionals are at for experiencing burnout due to COVID-19. While stressors such as workload, inadequate training and education, and disorganization within a medical setting can contribute to burnout in normal circumstances, it seems that COVID-19 has created a shared trauma environment, exponentially intensifying both job stress and personal life stress. This compounded stress seems to feel inescapable, and as healthcare professionals are faced every day with the repercussions of the COVID-19 virus, shared trauma is becoming a primary source of mental health issues. This could potentially be correlated to higher levels of burnout, as burnout is in part caused by worklife factors and other stressors in personal life combining and interacting to form a sort of burnout syndrome. Organizational support or

providing access to mental health support seems to moderate the effect of shared trauma on burnout, but many healthcare settings are having trouble meeting this need. Further research needs to be done on possible interventions that could be done to further limit the effects of a shared traumatic environment on employee burnout.

The development of the Burnout Assessment Tool, which provides a numerical score for burnout, will hopefully help in the research on interventions, as studies will be able to determine quantifiably how helpful different interventions are in different settings. Organizational policies should make every effort to reward employees' hard work and encourage them to seek mental health support as a preventative measure before professionals begin experiencing burnout symptoms. Insurance companies should consider making further provisions for mental health support, and agencies offering mental health services should take into account the traumatic environment healthcare workers have been experiencing for the last two years when providing treatment. Overall, improving understanding of how this pandemic has affected medical workers and improving access to mental health support that can competently address this trauma will go a long way to helping healthcare workers recover from burnout and hopefully reduce turnover rates within hospitals as we move forward. To bridge the research gap, this study has incorporated the literature review into a distinct conceptual model that presents the effects of shared trauma and organizational support on burnout (See Figure 1).

Figure 1

Conceptual Model of Factors Affecting Burnout



This conceptual model includes the following hypotheses:

- Hypothesis 1: Shared trauma will increase the likelihood of burnout.
- Hypothesis 2: Organizational support will decrease the likelihood of burnout.
- Hypothesis 3: Organizational support will buffer the effect of shared trauma on burnout.

This study will conduct an empirical study to test the hypotheses included in the conceptual model.

CHAPTER III

METHODOLOGY

The purpose of this study is to explore the potential experience of burnout and shared trauma of health care professionals in the US to determine if shared trauma could be related to the experience of burnout. Based on a review of the available literature, this study is based on a conceptual theory that shared trauma has become a significant factor of burnout among hospital staff, which has contributed to higher rates of experienced burnout contributing to higher staff turnover rates. This study also measured rates of perceived organizational support, as the available literature shows that organizational support can provide a moderating effect on burnout.

Research Design

This was a descriptive, observational, cross-sectional survey study, as it collected data at a single point in time. This study attempted to use the results to describe potential relationships included in the conceptual model hypothesizing that organizational support will buffer the effect of shared trauma on burnout among healthcare workers. This study design is generally recommended for studies trying to describe relationships between variables (Yegidis et al., 2018). Due to the nature of the cross-sectional survey study, this study was not able to address various threats to internal validity regarding these relationships.

Sampling

This study aims to test the conceptual model with empirical data in the context of rural hospital settings. The study population is employees involved with direct patient care in rural hospitals in Texas. This setting will likely provide different results from other settings, as the rural setting means that the local population and the healthcare workers will have experienced COVID-19 surges and resource availability differently than other communities. The general local attitudes toward COVID-19 and the threat it presents may also affect the perception of how much COVID-19 has affected worklife, which could potentially affect a possible correlation between rates of burnout and shared trauma due to COVID. The differences in local attitudes can be quantified using COVID vaccination rates as an indicator for how the local population has adapted to COVID precautions; at the time of this study, the United States was 66.0% fully vaccinated, while Texas was only 60.7% fully vaccinated, and in the counties served by the health systems being surveyed, vaccination rates only range from 35.7% to 50.1% fully vaccinated, which is significantly lower than the national vaccination rate (CDC, 2020). This study was unable to obtain vaccination rates for the healthcare systems being surveyed. How seriously a population has taken COVID precautions has an effect on how health systems are able to provide services, which can take a toll on the healthcare providers that try to provide care to clients that are unwilling or resistant to the added COVID precautions. The different business models within this population may also affect how staff approach care delivery and the availability of care and resources for patients differently than hospitals with other business models, which could cause discrepancies between

frustrations that hospital workers may deal with when providing care in a COVID-19 environment.

A desirable sampling frame would have been direct patient care employees in all hospitals in Texas, but as this was not possible, this study used convenience sampling of hospital employees at three small rural hospitals in West Texas. This limits the study's ability to generalize results to the entire population accurately, limiting the external validity of the study (Yegidis et al., 2018).

Instruments

Burnout

The dependent variable of this study is burnout, measured by the Burnout Assessment Tool (BAT) developed by Schaufeli, Desart, and De Witte (2020). With the development of the new Burnout Assessment Tool (BAT) and its functional way of scoring burnout, there may be significant implications for future research to become more operationalized and better measure the impact of various interventions in reducing burnout and its associated symptoms (Schaufeli et al., 2020). This has been lacking previously in research using the Maslach Burnout Inventory and Areas of Worklife Survey as it lacks a sum total score for burnout, limiting researcher's ability to quantify improvements and determine the efficacy of interventions.

This tool was developed to address issues in the Maslach Burnout Inventory, which has generally been considered the gold standard in burnout research but has some flaws in its conceptualization of burnout and did not produce a single score that could be used to measure burnout. The BAT was developed with these issues in mind and utilized dialectical interviews with 49 professionals experienced in treating burnout as well as a

quantitative study of 1500 Flemish employees to narrow down information from the interviews into various factors that describe burnout. These factors can be broken down into two main categories: the four core factors, referred to as the BAT-C—exhaustion, mental distance, cognitive impairment, and emotional impairment—and the three secondary factors that are not indicative of burnout alone but are often the reason people seek treatment for burnout, referred to as the BAT-S: depressed mood, psychological distress, and psychosomatic complaints. These factors are measured using 33 Likert scale questions measuring frequency from 1 (never) to 5 (always), except for depressed mood, which is recommended to be measured in 6 additional questions using the depression subscale in the 4-DSQ.

Reliability, measured by Cronbach's alpha, for the BAT-C was determined to be 0.95 and for the BAT-S was determined to be 0.90, showing very high levels of reliability. These are actually higher than the coefficients for the MBI, suggesting that the BAT is more reliable than the MBI. This measurement tool is in the public domain and can be found for free online (*Project ENG | Burnout Assessment Tool*, 2019). It is a valid and reliable tool for identifying workers that may be at risk for burnout (Schaufeli et al., 2020).

Shared Trauma

A major factor of burnout is shared trauma, which was measured by the Shared Trauma and Professional Posttraumatic Growth (STPPG) Inventory developed by Tosone, Bauwens, and Glassman following Hurricane Katrina (2016). The STPPG was developed to measure rates of shared trauma, which did not have a previous measurement tool or theoretical conceptualization. In the present study, the STPPG measured rates of

shared trauma among hospital workers in order to better understand the severity and prevalence of shared trauma among different departments within the hospitals. It consists of 14 items answered on a 5-point Likert scale asking to what extent a participant feels an item is true for them. It measures three subscales: technique-specific shared trauma (4 items), personal trauma (3 items), and professional posttraumatic growth (7 items). The STPPG has a Cronbach's alpha of .88 and is considered to have good validity (Tosone et al., 2016). This tool is also in the public domain.

Organizational Support

To measure organizational support that potentially buffers the impact of trauma on burnout, the Indirect Trauma Organizational Capacity Index was used. This instrument was developed to measure the support organizations had provided before and after providing patient care during COVID-19 in order to measure how supported employees felt by the organization and how well the organization adapted to the situation (Holmes et al., 2021). It consists of 10 questions answered on a 5-point Likert scale that address how the organization had previously provided support to employees and how it had adapted to providing support during COVID-19 as hospital regulations shifted and the need for additional support became greater. The index has a Cronbach's alpha of 0.91 and is so far judged to have good validity and reliability (Holmes et al., 2021), although its recent development means that it has not yet been widely studied.

Control Variables

This study included demographic information collected on gender, which hospital participants work at, their role within their hospital, what department they work in, if they work day shift or night shift or regular office hours, number of years' experience in their

field, how often they have had contact with COVID patients, and if they or a loved one has been severely ill with COVID. This helped to control for differences in management between hospitals and departments, as well as other factors that might affect the organizational support provided to employees. For example, if a hospital provides an exercise program to employees, but it is only open during the day, then night shift employees may not be able to access this support. The estimated frequency of contact with COVID-19 patients and the potential for personal experience with COVID-19 was also included to help determine the risk employees are at for shared trauma.

Ethical Consideration and Data Collection

The study survey utilized the SurveyMonkey platform to enable participants to fill out the survey online. A link to the survey was made available by hospital administration on news forums accessible only to employees. Due to difficulty obtaining a way to distribute survey to specific departments, this was necessary to distribute the survey to all employees, which included some non-hospital services and non-patient care departments. As the primary risk to the survey is a breach of confidentiality, the researcher applied for a Waiver of Documentation of Consent for the study, so study and consent information was be given at the beginning of the survey and participants were be asked to check a box indicating that they provided consent. Using demographic questions, the researcher was able to differentiate between departments, especially regarding roles that have direct patient contact and could possibly experience shared trauma. The survey does not ask for any identifying information, and due to the large number of employees within the three hospitals, it is very unlikely that a survey participant's answers could be linked back to them. However, participants were warned in the consent information that the primary risk

in the study is a breach of confidentiality. In order to further protect the confidentiality of the participants, the data was stored on a password-protected flash drive, and only the primary investigator and faculty advisor had access to it. After the study is completed, the flash drive will be stored for three years and then wiped clean.

As this study only presents minimal risk to participants and does not collect identifying information, the researcher received an approval from the ACU Institutional Review Board (IRB) (see Appendix A). After obtaining IRB approval, the researcher sent the approval documentation to the hospital management and the hospital management made a news distribution post on their employee news forums containing a link to the online survey on the SurveyMonkey platform. The post was IRB approved and explained the research and stated that participation is completely voluntary. The researcher gave the participants a ten-day time frame from March 11, 2022, to March 20, 2022, in which to complete the survey due to limited time constraints and then stopped data collection.

Data Analysis

Data analyses were conducted using the Statistical Package for the Social Sciences (SPSS). Descriptive analysis resulted in information about the characteristics of the survey participants regarding the control variables and other sociodemographic information. An internal consistency reliability analysis was conducted for all three scales used in the survey as the developers of each reported the Cronbach's alpha. Cronbach's alpha is widely used to assess reliability of scales. This value refers to "the extent that correlations among items in a domain vary, there is some error connected with the average correlation found in any particular sampling of items" (Nunnally, 1978, p. 206). This ensured that the scales consistently measured the factor they were supposed to

measure. A high Cronbach's alpha indicates that the items in the scale are highly correlated, and thus the scale is highly reliable. Nunnally (1978) argued that an alpha of 0.60 or higher should be indicative of minimally adequate internal consistency. A hierarchical regression analysis was conducted to test the hypotheses described in the conceptual model (Figure 1). The moderating effects were analyzed and plotted in a graph by using the Process v4.0 macro developed by Andrew Hayes (Hayes, 2017) (see Figure 2).

CHAPTER IV

FINDINGS

Participants

The survey collected data for 87 cases. The working sample includes 84 cases after deleting three cases that were missing most of the variables. Tables 1 and 2 present descriptive statistics about the survey participants' demographic background. The study participants in this sample were mostly female (90.5%). The overwhelming majority of respondents came from one hospital campus (92.9%). The three largest healthcare roles represented in the sample were nurses (RNs and LVNs) (54.8%), other roles involving direct patient contact (CNAs, radiology techs, phlebotomists, transport teams) (16.7%), and case manager/social workers (14.3%), representing 85.8% of the sample. Half of participants reported working full-time on day shift, and 32.1% reported working full-time night shift, while 9.5% reported working full-time normal office hours, meaning that 91.6% of respondents work full time. A total of 60.7% of respondents have been hired in the past two years, which indicates that there have been a lot of staffing changes and turnover within this period. Unfortunately, the turnover rate for recent years was not available at the time of writing, so it is unknown if this is a significant difference from previous years. Of respondents, 20.2% reported working consistently on a COVID floor, and on a Likert scale describing frequency of contact with COVID positive patients, 35.7% of participants reported "sometimes," another 35.7% reported having "often," along with another 13.1% reporting "always" having contact with COVID-positive

patients. Together, 84.5% of participants reported having sometimes to constant contact with COVID positive patients. Finally, 41.7% of participants reported a loved one being seriously ill with COVID within the past two years.

Table 1

*Characteristics of the Sample (*N *=84[a])*

Variable	Category	*n*	%
Gender	Male	7	8.3
	Female	76	90.5
	Prefer not to say	1	1.2
Branch	Hospital 1	78	92.9
	Hospital 2	2	2.4
	Hospital 3	2	2.4
	Other	2	2.4
Role	Physician	1	1.2
	Nurse (RN, LVN)	46	54.8
	Therapist (PT, OT, RT, ST…)	1	1.2
	Case Manager/Social Worker	12	14.3
	Other role with direct patient contact (CNAs, radiology techs, phlebotomists, transport teams)	14	16.7
	Administrative role (not day to day direct patient contact)	5	6
	Other	5	6
Specialty	ICU or PACU	7	8.3
	Emergency	1	1.2
	Women's and Children's services	18	21.4
	A COVID-positive floor (choose this option if you've ever worked consistently on a COVID floor)	17	20.2
	N/A	41	48.8
Schedule	Full time day shift	42	50
	Part time day shift	4	4.8
	Full time night shift	27	32.1
	Part time night shift	2	2.4
	Full time normal office hours	8	9.5
	Part time normal office hours	1	1.2
Time in current position	0-12 months	27	32.1
	1-2 years	24	28.6
	3-5 years	18	21.4
	6-10 years	8	9.5
	11-15 years	4	4.8
	16+ years	3	3.6
Time in current profession (years) *n*=52 Min: 0 ~ Max: 46 *M*=10.69 *SD*=10.77			

Note. [a] Total number of the variable varies due to missing data.

Table 2

*COVID-Related Information (*N *=87)*

Variable	Category	*n*	%
COVID contact	Never/no contact	4	4.8
	Rare	9	10.7
	Sometimes	30	35.7
	Often	30	35.7
	Always/daily contact	11	13.1
Severely ill due to COVID among loved ones	Yes	35	41.7
	No	49	58.3

Descriptive Statistics of Major Variables

Table 3 presents information about three scales used in this study. For each sub-scale of each scale, a reliability test was used for the given items. Except for one, the Cronbach's alphas of all sub-scales were bigger than a widely used cut-off point of .7. Therefore, the scores on the given items were averaged to generate a composite value to measure based on the instructions of the scales. One of the sub-scales for Shared Trauma (technique specific shared trauma) yielded a low alpha of .603. By eliminating Item 4, the internal consistency reliability was increased to .656. It is recommended that a multi-item scale should include three or more items, so a decision was made to use the 3-item scale because it is close to .7.

The distribution of the composite variable for burnout exhaustion has a mean of 3.29 with a standard deviation of 0.92. Based on the criteria, this group seems to have moderate level of exhaustion related to burnout. The variable for technique specific shared trauma has a mean 3.11 of with a standard deviation of 0.69. Based on the criteria, this group seems to have experienced a moderate level of shared trauma related to their practice techniques. The variable for shared trauma professional growth has a mean of

3.38 with a standard deviation of 0.62. Based on the criteria, this sample seems to have experienced a moderate level of professional growth due to the experience of shared trauma. The participants seem to have experienced low levels of cognitive and emotional impairment with means of 2.32 and 0.81 and standard deviations of 0.81 and 0.72 respectively. The participants also seem to have experienced low levels of personal shared trauma, with a mean of 2.49 and standard deviation of 0.92. When compared to the other factors of shared trauma, this is significantly lower, indicating that participants seemed to have shared trauma in the areas of technique specific trauma and professional growth, which are related more to the traumatic experiences and increased burden they experience at work, while having relatively little personal trauma from experiencing COVID in their personal lives.

For the burnout scale, the reliability analysis for the whole scale shows that there is an internal consistency between the four sub-scales (Cronbach's alpha = 0.885). For the shared trauma scale, the reliability analysis for the whole scale shows that there is no internal consistency between the three sub-scales (Cronbach's alpha = 0.337). It seems that the three sub-scales measure distinctive sub-constructs that are not related to each other.

Table 3

Descriptive Statistics and Internal Consistency

Composite variable	Item #	Cronbach's alpha	Min	Max	*M*	*SD*
Burnout: Exhaustion	8	0.951	1.25	5.00	3.29	0.92
Burnout: Mental Distance	5	0.894	1.00	5.00	2.53	0.91
Burnout: Cognitive Impairment	5	0.942	1.00	5.00	2.32	0.81
Burnout: Emotional Impairment	5	0.888	1.00	4.40	2.07	0.72
Shared Trauma: Technique[a]	3	0.656	1.33	5.00	3.11	0.69
Shared Trauma: Prof. growth	7	0.811	1.29	5.00	3.38	0.62
Shared Trauma: Personal	3	0.921	1.00	5.00	2.49	0.92
Org. Support prior to COVID	5	0.876	0.00	5.00	2.78	1.33
Org. Support after COVID	5	0.819	1.00	5.00	2.99	1.00

Note. [a] *After deleting Item4 due to low alpha of .603*

Factors of Burnout

A multiple regression analysis was performed to test the following hypotheses regarding the moderating effect of organizational support on the relationship between shared trauma and burnout after COVID 19. Because the predictors and outcome variables included multiple sub-scales (3 shared trauma subscales and 4 burnout sub-scales), 12 regression analyses were conducted. Among 12 analyses, only 1 regression model revealed a moderating effect of *Organizational Support* between *Shared Trauma-Technique* and *Burnout-Cognitive Impairment* (Beta = .367, $t = 2.487$, $p = .015$), shown in Table 4. This suggests that participants suffering from shared trauma in relation to their field of practice suffer less cognitive impairment in regard to burnout when they feel supported by their employer.

Table 4

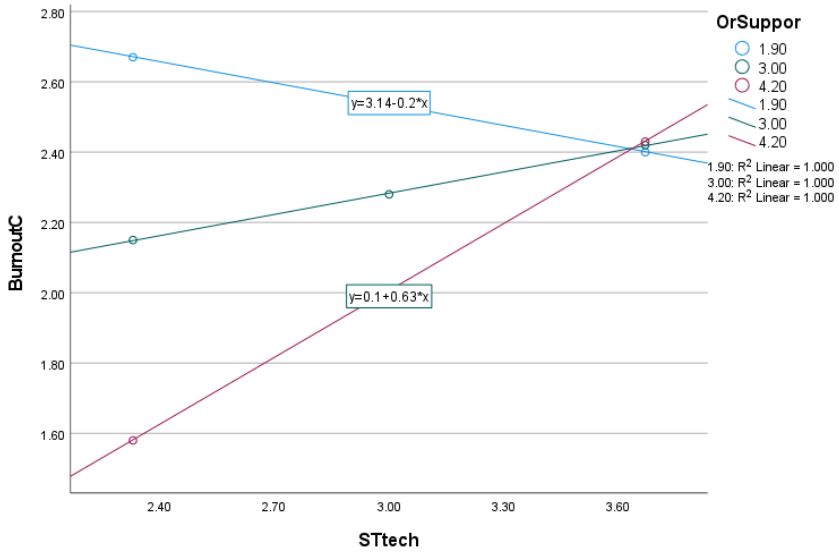
*A Multiple Linear Regression (MLR) Model of Burnout-Cognitive Impairment (*N = *71)*

	Model1		Model2	
Factor	*t*	*p*	*t*	*p*
TimePosition	-0.374	0.710	-0.612	0.543
ContactCovid	1.224	0.225	0.916	0.363
ICUemergency	-0.846	0.401	-1.389	0.170
Shared Trauma-Technique	0.650	0.518	-2.14	0.036
Organizational support	-1.969	0.053	-2.849	0.006
Trauma x Org. support			2.487	**0.015**

A further analysis was conducted to generate a visual representation of the interaction effect using the Hayes' Process (Hayes, 2017), shown in Figure 2. This approach confirmed the interaction effect ($b = 0.37$, $t = 2.49$, $p = 0.02$, LLCI = 0.07, ULCI = 0.66) after controlling for other covariate variables as well as the main effects of the independent variable (i.e., Shared Trauma-Technique) and the moderator (i.e., Organizational support during pandemic). The slopes in Figure 2 show that the effect of shared trauma on burnout is conditional depending on different levels of organizational support. Although the moderating effect was statistically significant (i.e., rejecting the null hypothesis), the result was not consistent with the research hypothesis (i.e., buffering effect).

Figure 2

Interaction Effect of Organizational Support



The Hayes' Process also presents the results of a further analysis (i.e., simple slopes analyses) that test the statistical significance of each slope. The slope for the high level of organizational support was statistically significant, suggesting that the slope for the case of high organizational support ($b = 0.63$, $t = 2.474$, $p = 0.016$) was positive, meaning that burnout increases as shared trauma increases. The slopes for the other cases (i.e., mid and low levels of organizational support during pandemic) were not statistically significant.

Since the moderating effect was not statistically significant in the rest of the regression models, Table 5 presents the results of a model that excludes the interaction term (i.e., this kind of model is called a direct model versus a moderating model). Due to missing data for some variables, 71 cases were included for each regression model. In this model, organizational support and the shared trauma subscales of professional growth and personal trauma have no significant effect on the burnout subscale of

cognitive impairment. The shared trauma subscale of personal trauma does show a significant impact on the burnout subscales of exhaustion ($t = 3.452$, $p = 0.001$), mental distance ($t = 5.005$, $p < 0.001$), and emotional impairment ($t = 2.730$, $p = 0.008$), suggesting that personal trauma increases the experience of these aspects of burnout. Organizational support was shown to have a significant effect on all subscales of burnout except for cognitive impairment, when, as previously explained, organizational support only moderates the effects of technique specific shared trauma on burnout.

The data seems to support the first two hypotheses of this study; shared trauma does increase the risk of burnout, and organizational support does decrease the risk of burnout. However, the data does not show a strong moderating or buffering effect of organizational support on the relationship between shared trauma and burnout, which disproves the third hypothesis proposed in this study.

Table 5

*Multiple Linear Regression (MLR) Models of Burnout (*N = *71)*

	Burnout Exhaustion		Burnout Mental Distance		Burnout Cognitive Impairment		Burnout Emotional Impairment	
Factor	*t*	*p*	*t*	*p*	*t*	*p*	*t*	*P*
TimePosition	-1.318	0.192	-0.341	0.735			-0.938	0.352
ContactCovid	0.556	0.580	0.683	0.497			-0.028	0.978
ICUemergency	-1.627	0.108	-1.413	0.163			-0.486	0.629
Shared Trauma-Technique OrSupportPost	1.068 **-3.512**	0.290 **0.001**	1.126 **-3.276**	0.264 **0.002**			-0.286 **-2.441**	0.776 **0.017**
TimePosition	-1.032	0.306	-0.274	0.785	-0.514	0.609	-0.884	0.380
ContactCovid	0.455	0.65	0.72	0.474	1.365	0.177	-0.073	0.942
ICUemergency	-1.574	0.12	-1.34	0.185	-0.819	0.416	-0.500	0.619
Shared Trauma-Professional Growth OrSupportPost	1.737 **-3.853**	0.087 **<.001**	0.657 **-3.301**	0.514 **0.002**	-0.509 -1.783	0.612 0.079	0.083 **-2.396**	0.934 **0.019**
TimePosition	-1.337	0.186	-0.248	0.805	-0.354	0.725	-0.839	0.404
ContactCovid	0.437	0.663	0.517	0.607	1.193	0.237	-0.304	0.762
ICUemergency	-1.386	0.171	-1.132	0.262	-0.69	0.492	-0.285	0.777
Shared Trauma-Personal OrSupportPost	**3.452** **-3.217**	**0.001** **0.002**	**5.005** **-3.015**	**<.001** **0.004**	1.484 -1.744	0.143 0.086	**2.730** **-2.148**	**0.008** **0.035**

CHAPTER V

DISCUSSION

This study was conducted with participants from healthcare settings in rural West Texas, and consisted mainly of full-time nurses, case managers, social workers, and other direct care providers that reported regular contact with COVID-positive patients. A majority of the participants (60.7%) had been hired within the last two years, indicating a rather high rate of turnover during the course of the pandemic. Reliability tests were conducted on each subscale used in the survey to ensure the variables were being measured accurately and consistently, resulting in one item being eliminated from the technique specific shared trauma subscale to ensure greater reliability. It is important to note that the four subscales for burnout were all found to be internally consistent, indicating that the subscales measure related constructs, while the three subscales for shared trauma were not consistent, indicating that the three subscales measure distinct and separate constructs.

The means for the subscales indicated that the sample experienced moderate levels of exhaustion, technique specific shared trauma, and professional growth, while experiencing low levels of cognitive and emotional impairment and personal trauma. Overall, this could indicate that the sample experienced more distress from increased job pressures and stresses without this distress affecting their personal life and judgment. Many professions in healthcare advocate for a degree of separation between work life and personal life; if healthcare providers were practiced at maintaining that boundary, it could

potentially have helped them to keep the increased job stress from affecting their personal lives, resulting in the variation between the subconstructs of burnout and shared trauma measured in the study. Further and more detailed studies would be needed to confirm or refute this potential explanation.

The medium to low levels of trauma and burnout may be surprising; from the available literature studied prior to conducting the survey, it seemed that levels of anxiety and depression and negative reactions to increased job pressure studied through various trauma lenses were prominent and widespread among healthcare professionals. However, most of the literature was published within the first year and a half of the pandemic, and many of those studies were conducted within the first year, or even the first few months, of the pandemic. As this survey was conducted two years into the pandemic, the context has changed; much more is known about COVID-19 now than there was at the beginning of the pandemic, and as the public has experienced multiple waves and new variants, people seem to have adapted to this new fact of life. The availability of vaccines has also made COVID much more avoidable and less severe, which has helped the healthcare system avoid the panic that was often felt in the first few months of the pandemic. Perceptions of COVID and how we should approach it as a society have also changed greatly since the start of the pandemic, which could have interfered with the way survey participants responded. This could all contribute to the lower-than-expected levels of trauma and burnout amongst healthcare professionals in this study, and could be a reason to hope that those who are experiencing shared trauma and burnout may prove more resilient than expected as well.

There could be another explanation for the lower scores of shared trauma and burnout than expected; just as in the general public, there is a wide range of opinions within the medical field regarding COVID, especially in the rural West Texas sample being studied. Medical professionals who are more dismissive of COVID are likely going to experience stress and burden differently than their colleagues who are very serious about COVID, which could affect their scoring for the different subscales of shared trauma and burnout. On top of this, the shared trauma survey used in the study was developed with a sample of hurricane victims, which generally share similar perceptions about the traumatic event they have experienced (Tosone et al., 2016). This could potentially explain the lower reliability of the technique specific subscale of shared trauma, as people's opinions about COVID vary so widely, and the survey does not take this into account. All three subscales of shared trauma (technique specific, professional growth, and personal trauma) are vulnerable to the influence of the changes COVID perception can cause because they are rooted in how a person feels about their experience of working in a COVID environment. The subscales of burnout could also be affected by the perception of COVID; participants may be more or less exhausted if their colleagues and patients share or disagree with their personal views on COVID, and this could also affect the subscales of mental distance and emotional and cognitive impairment. The survey does not account for differences in perception, which could potentially lead to participants scoring differently using this survey than they might have otherwise, skewing the results.

Using the perception of vaccines as an example of differences in perception of COVID, there are at least four main groups of public opinion: people who get the vaccine

because they want to, people who are forced to get the vaccine by employer mandates, people who do not get the vaccine because they do not want to, and people who do not get the vaccine because of medical concerns. These groupings apply to medical professionals as well. Perceptions are also likely to have changed over time, which could affect how professionals have experienced COVID. In the beginning, so much was unknown about COVID, and there were no treatments or vaccines, so fear and helplessness seem to have been common perceptions between professionals and patients everywhere. With the onset of treatments and vaccines, medical professionals have gained more options for preventing serious illness and death, which can make it all the more frustrating and traumatic for medical professionals when a patient refuses treatment because they do not believe in COVID. If this study could have included participants' perceptions of COVID in the analysis, the relationships between factors might have gained a new level of understanding and depth.

The relationships between organizational support and the subconstructs of burnout and shared trauma proved more complex than originally anticipated. The hypotheses being tested in this study were that shared trauma would increase the likelihood of burnout, organizational support would decrease the likelihood of burnout, and that organizational support would buffer the impact of shared trauma on burnout. Analysis showed that high levels of organizational support did affect the relationship between shared trauma and burnout, but not in the way predicted; when organizational support was high, there was a stronger correlation between high rates of shared trauma and high rates of burnout. This could indicate that perhaps the support offered by the organizations was ineffective as an intervention, or it could be a result of administration

in the organizations reacting to more complaints of burnout and shared trauma and offering more support as a result. The interaction between technique specific shared trauma and cognitive impairment was the only time that organizational support was statistically significant as a moderating factor. It is possible that organizational support is unable to buffer impacts on the subscales of mental distance and emotional impairment as they are more personal and out of the organization's ability to help. In the midst of a pandemic and COVID surges, an organization may not be able to do much to help staff avoid exhaustion; cognitive impairment, however, could be much more easily monitored and addressed in a professional setting. Further testing would be needed to truly explain the lack of organizational support acting like a buffer in this situation.

Limitations

As previously mentioned, the design of this study creates some limitations for the significance of the findings. Due to the cross-sectional design, the factors were only measured at one point in time, and there is no reference with which to compare these scores in order to study if the experiences of healthcare workers have changed significantly throughout the pandemic, possibly due to developments of new variants or vaccines or research, all which could have significantly affected the way healthcare professionals experienced and processed the pandemic. In addition, the convenience sample of rural healthcare professionals in West Texas also limits the generalizability of the findings. As discussed, this area of Texas had significantly lower rates of vaccination than other areas in Texas, which has a lower vaccination rate than the country. This could directly impact how COVID surges affected the local healthcare systems, and could also

be indicative of underlying sociopolitical differences in how residents adapted to COVID, which would affect how effectively healthcare systems were able to treat residents.

Another limitation to this study was the relatively small number of survey respondents. While large enough to provide meaningful analysis, a larger number of respondents might have provided a clearer understanding of the complex relationships evident in the hypotheses studied. While the survey was being distributed, an unfortunate circumstance occurred within the healthcare email distributions and the survey ended up being posted on employees' online news platforms. This meant that not all of the potential 4,600 employees were notified or informed about the chance to participate in the survey, so it's likely that this affected the low response rate. In further research, it could potentially be helpful to make the survey available in multiple ways, instead of just a link to the survey posted online where employees might possibly see it. Having multiple recruitment methods might result in a higher response rate. It could also potentially be beneficial to offer some kind of small incentive for completing the survey.

The lack of consideration for the way perception could be influencing each factor involved in the study is another major limitation. As discussed, the perception of COVID could greatly change the way a participant responded to the survey, and could lead to the findings of this study being less reliable. Future research should attempt to include some indication of perception in the survey and analysis. This would lead to better understanding of the factors involved at the present time and could lead to the development of better interventions to address the issues of shared trauma and burnout.

Implications

This study has potential to greatly add to our understanding of the experiences of healthcare professionals during the COVID-19 pandemic, despite its limitations. As previously mentioned, there are serious gaps in the literature regarding quantitative analysis of the experiences of trauma and burnout during the pandemic, as well as organizational support to try to limit the negative impacts of the pandemic. Most of the existing literature seems to focus on the experiences of one profession at a time, and there is incredibly little research on interventions and methods of support to address the various issues discovered. This study focused on the experiences of a more general set of healthcare professionals and quantifiably measured rates of burnout and shared trauma and attempted to discover if organizational support could be a way to mitigate the harmful effects seen on healthcare professionals during the pandemic. While this study was unable to determine the exact nature of the relationships between variables, it did show that the previous literature and understanding of these variables oversimplified the relationships involved and underestimated the complexity that perceptions about COVID adds to the analysis. Further research will be needed to better make sense of the results of this study, especially regarding the ways in which organizational support impacts but does not buffer the relationship between shared trauma and burnout. A suggestion for future studies attempting to better understand these relationships would be to include COVID perceptions and attitudes as a factor affecting how people have reacted to the pandemic. Further research could also continue exploring the different lenses of trauma and reactions to stress. As it appears the experience of COVID among healthcare professionals is easing, the concept of shared trauma may not apply to the situation as

well as it seemed to, based on the previously available literature. If it does not seem to apply anymore, this study could be repeated with a different trauma lens instead of shared trauma, as it is possible that the results could have been affected by a fundamental misrepresentation of the pandemic experiences as an experience of shared trauma.

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APPENDIX

Institutional Review Board Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

Dear Cassie,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled

(IRB# 22-021)is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs