A Therapist's Approach When Working With Healthcare Workers Who Are Suffering From Acute Stress Disorder, Burnout and Sleep Disturbances During and Post-COVID

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Abstract

Healthcare workers, particularly physicians and nurses, experience and develop significant mental health issues while working during pandemics such as COVID. This paper examines research on mental health issues experienced by healthcare workers during pandemic eras, and outlines strategies therapists can utilize to support the mental health of healthcare workers. Acute stress disorder, burnout, and sleep disturbances appear frequently in a search of medical databases within the past five years. This paper goes on to outline information regarding effective assessment tools and therapeutic interventions when working with health care workers experiencing mental health issues. The following approaches and tools are found to be effective when working with healthcare clients: “psychological first aid,” “trauma-informed care,” “cognitive behavioural therapy,” “acute stress disorder scale,” “Maslach burnout inventory,” and “Pittsburgh sleep quality index.” When therapists use these approaches and tools, they are more likely to provide healthcare workers with comprehensive and holistic interventions to help them cope with the mental health symptoms they experience during pandemics such as COVID. This paper outlines the critical role therapists can play to facilitate healing journeys for healthcare workers during times of pandemic. It is imperative for therapists to be aware of and implement the most efficacious therapeutic interventions and modifications (telehealth) when providing therapy. Finally, therapist self-care is crucial in order to provide compassionate and long-term therapy for healthcare workers.

Keywords: COVID, acute stress disorder, burnout, sleep disturbances, psychological first aid, trauma-informed care, cognitive behavioural therapy, telehealth, therapist self-care.

The disease COVID, or coronavirus, is the new medical term known by individuals worldwide and results from the virus SARS-CoV-2. COVID has become a part of everyday vernacular since its declaration as a global pandemic in 2020. The World Health Organization declared COVID a pandemic on March 11, 2020, and every country was encouraged to take a "whole-of-government, whole-of-society approach, built around a comprehensive strategy to prevent infections, save lives and minimize the impact" (World Health Organization, 2020a). Approximately 91% of the world's population resides in a country where government officials enforced public health measures suggested by the World Health Organization. These measures included social distancing, donning and doffing personal protective equipment (masks, gloves, gowns), isolation, lockdown, and quarantine when necessary (Daly et al., 2021). These preventative strategies have created new societal and cultural norms within many countries and have political, financial, and emotional repercussions. The biopsychosocial and emotional strains individuals are experiencing affect their relationships, mental health, and work performance (Clemente-Suarez et al., 2020). Healthcare professionals are not exempt from experiencing the mental and physical health ramifications of COVID, both personally and professionally.

The initial announcement and declaration of the COVID global pandemic created a sense of urgency and call to action for healthcare agencies and their employees, and the resulting mental health implications were foreseeable (Lai et al., 2020; Sagherian et al., 2020). Citizens and healthcare workers watched coronavirus infiltrate their respective countries. Healthcare services needed to mobilize, taking swift and appropriate actions to mitigate the potential devastation already occurring in Wuhan, China (Lai et al., 2020). COVID is the first pandemic of this magnitude experienced by numerous healthcare workers, especially doctors and nurses, and it is critical to determine the most effective strategies, tools, and services to preserve healthcare

workers' mental health during and post-pandemic. Lai et al. (2020) discuss healthcare workers' potential to become patients during COVID, and urge managers and healthcare workers to practice self-care and support one another. Encouraging healthcare workers to provide non-judgmental peer support and destigmatize mental health issues is essential during COVID. When healthcare workers believe that they can openly discuss their mental health issues with their peers, it can promote team cohesiveness and create healthy and productive work environments (Maben & Bridges, 2020).

At the onset of the pandemic, China faced a pervasive and considerable number of COVID-related deaths due to the minimal etiological and epidemiological information, and effective medical interventions available (Lai et al., 2020 & AITakarli, 2020). China's government quickly initiated their epidemic response model, which successfully reduced the number of the overall potential mortality rate to the current death total of 4,849 while navigating all of the 'firsts' of the COVID pandemic (AITakarli, 2020 & WHO, 2021). Unfortunately, China still experienced a devastating loss of human life, and the strife created for healthcare workers, both emotionally and physically, was undeniable (Lai et al., 2020).

The State Council of China witnessed the mental health deterioration of Chinese citizens during COVID and initiated mental health hotlines to help civilians cope with their struggles (Lai et al., 2020 & Shaukat et al., 2020). Unfortunately, there is little evidence-based research on the efficacy of specific mental health interventions for preserving healthcare workers' mental health during COVID (Grover et al., 2020, Lai et al., 2020 & Shaukat et al., 2020). Therefore, the purpose of the following literature review is to understand how healthcare workers, in particular physicians and nurses, experience and process acute stress responses during COVID, which can lead to acute stress disorder (ASD), burnout, and sleep disturbances. What clinical interventaions

can therapists use to help those helping others? Understanding healthcare workers' experiences during COVID will guide clinical implications for counsellors and point towards future research topics relevant to the mental health of healthcare workers' during a pandemic.

Self-Positioning Statement

My career in and passion for mental health have continuously evolved over the past 23 years since completing my bachelor's degree in nursing in 1998. I have worked in mental health throughout my nursing career, including with acute inpatient child, adolescent and adult populations, through community crisis work, and currently as I complete my master's in counselling. Never during my professional career would I have anticipated having to work and study during a pandemic. Since the pandemic's onset, I have observed the mental health of many of my colleagues deteriorate. It has become essential for me to understand the underlying contributing factors for their mental health decline and to explore the most efficacious therapeutic interventions to support them on their journey to mental health wellness.

My exploration of COVID's impact on the emotional, psychological, and biological well-being of healthcare workers commenced with an extensive online database search that focused on previous pandemics, current global research on healthcare workers' mental health during COVID, and recommendations for mitigating the decline in healthcare workers' mental health. Limited evidence-based research explains the effective interventions utilized in preserving healthcare workers' mental health in previous pandemics (Benfante et al., 2020; Ott et al., 2007). Maunder et al. (2006) report that healthcare workers continued to suffer from mental health issues such as burnout, post-traumatic stress disorder, and emotional distress 13-26 months after the SARS outbreak in 2003. The infection rate, increased workload, and hours spent in the hospital treating patients impacted the staff's mental health, and provided valuable information

for future pandemics (Maunder et al., 2006). Seemingly simple interventions such as increasing the number of available staff to work decreases the rate of burnout and may offer the opportunity for shorter shifts, increased break-times, or having time to decompress at work. Working collaboratively with hospital staff to identify current needs and incorporating historical lessons would be a step in the right direction to pre-emptively reduce the risk of short and long term mental health issues (Lazaro-Perez et al., 2020).

Although I am not providing direct patient care for COVID-positive patients, I have felt the emotional, psychological, and physiological effects of working during COVID. I have experienced intermittent periods of insomnia related to anxiety, and have heightened emotional responses to known work stressors. Therefore, maintaining an objective and unbiased perspective throughout my literature review is essential. In order to circumvent my biases and provide a holistic and comprehensive perspective in the literature review, I incorporate pertinent information that opposes my viewpoint that healthcare workers are experiencing mental health issues during COVID.

Literature Review

A Brief Overview of Historical Pandemics

Spanish Flu

The most devastating pandemic of the 20th century was the Spanish Flu of 1918, which claimed the lives of 20 to 50 million people worldwide (Trilla et al., 2008). Several factors contributed to the alarming death rate, such as the timing of World War I, the unknown etiology of the virus, and ineffective vaccines to suppress the outbreak. Furthermore, the lack of medical supplies, technologically advanced hospital equipment, and effective antibiotics could not support the needs of patients who experienced secondary complications from the virus (Jester et

al., 2019; Jordan, 2019).

The Spanish Flu developed from the Influenza A virus and closely resembled the human and classical swine flu (H1N1 subtype). Virologists continue their research on this strain to understand further the molecular determinants impacting the virulence, transmissibility, and virus sequencing to procure information for future pandemic responses (Belser & Tumpey, 2018; Taubenberger, 2006). During the Spanish Flu, the available vaccines targeted the rod-like shape of the "influenza bacilli" and were ineffective in suppressing the H1N1 subtype (Jester et al., 2019). The Spanish Flu occurred in three waves beginning in spring 1918, autumn of 1918, and winter 1918-1919; the second wave recorded the most fatalities (Jester et al., 2019; Salgo, 2020; Short et al., 2018). Records from the first wave indicate that the average fatality rate was higher than the regular flu fatality rates, but many of those infected still recovered quickly. Surprisingly, physicians noted that the highest mortality rate occurred in individuals between the ages of 20-39 instead of in the normally more vulnerable younger and older populations (Barro et al., 2020; Jester et al., 2019).

During the second wave of the Spanish Flu the transmission rate was uncontrollable, and patients overwhelmed the military and civilian healthcare systems (Jester et al., 2019). In Massachusetts, Camp Devens reported over 10,000 hospital admissions in September, with a record-breaking 1,000 daily admission September 16-18. The mortality rate remained the highest in 15-34-year-olds in individuals who suffered from influenza pneumonia and a secondary bacterial pneumonia infection. The third wave in the winter of 1918-1919 did not see a substantial decrease in mortality rates; the virus was likely incubating for four months before the onset of symptoms. One explanation of the high patient mortality rate between 15-to 34-year-olds was that their immune system had no immunological memory or defence mechanisms

against the Influenza A subtype (Jester et al., 2019).

The United States and Canada reported that mild symptoms of the Spanish Flu included upper respiratory tract symptoms such as nasopharyngitis, epistaxis (nosebleeds), sore throat, and cough. The systemic manifestations included fever, myalgia (muscle aches and pain, including in organs), and lack of vitality (Jester et al., 2019). Furthermore, severe symptoms presented as respiratory distress with air hunger, severe cyanosis, decreased levels of consciousness, and pulmonary edema (fluid in the lungs). Other patients suffered from acute respiratory distress syndrome (ARDS) and cytokine dysregulation, which resulted in rapid death (Jester et al., 2019; Tumpey, 2005). Conversely, in Madrid, Spain, records indicate that the onset of symptoms was sudden, with individuals being febrile for 2-3 days, experiencing gastrointestinal symptoms, and having low mortality rates (Trilla et al., 2008).

Government and Healthcare Agency Responses. Throughout the United States and Canada, government and public health agencies responded similarly to the Spanish Flu's impact with occasional conflicts. The primary conflicts resulted from differing opinions on the best course of action while minimizing economic devastation (Ott et al., 2007; Sattenspiel & Herring, 2003; Trilla et al., 2008). For example, one city may have implemented a lockdown, while an adjoining city would disregard this government recommendation (Trilla et al., 2008). Stress and strain on all individuals was evident, and government officials struggled to determine the best course of action to eliminate the spread of the Spanish Flu (Ott et al., 2007; Trilla et al., 2008). As the number of dead increased, Spain, Britain, Canada and the United States implemented policies and protocols to disinfect high transmission surfaces. For example, postal services and public transportation vehicles implemented strict disinfection protocols, individuals were strongly encouraged to increase personal sanitization/hygiene, to discontinue public gatherings

and public venues were shut down.

Healthcare workers diligently worked to save their patients' lives throughout the Spanish Flu, but were significantly impacted by misinformation and conflicting strategies to contain the virus (Ott et al., 2007). Eventually, strategies such as wearing a face mask, social distancing, increased hand hygiene, disinfecting practices, and quarantine were enforced to save patients and healthcare workers (Gordon et al., 2020; Trilla et al., 2008). Healthcare workers struggled to maintain adequate care of patients due to their increased workload, lack of medical equipment (ventilators) and medications, and ineffective vaccines for the Spanish Flu (H1N1 subtype), making them prone to becoming infected. Furthermore, patients needed to isolate until a doctor declared them healthy (Gordon et al., 2020).

To circumvent fear of the virus, the United States used cultural images of nurses and doctors during the early 20th century as propaganda to help bolster public morale (Gordon et al., 2020). Nurses' and doctors' were overwhelmed in the depths of managing a pandemic by being exposed to the illness, seeing patients die, and managing their own lives seems. Not only was there an expectation that they attend work, but they had the added pressure of being 'icons of society.' The expectation that healthcare professionals always presented as composed significantly impacted their mental health (Gordon et al., 2020).

The Guardian newspaper shared Doctor Basil Hood's observations of the nursing staff at London's St. Marylebone Infirmary during the 1918 pandemic (Honigsbaum, 2020). His words speak of the inner turmoil that healthcare staff were facing: "The staff fought like Trojans to feed the patients, scramble as best they could through the most elementary nursing and keep the delirious in bed" (para. 5). From an emotional perspective, Hood wrote: "Sad to relate some of these gallant girls lost their lives in the never-to-be-forgotten scourge and as I write I can see

some of them now literally fighting to save their friends then going down and dying themselves" (para. 7).

Severe Acute Respiratory Syndrome (SARS)

The Severe Acute Respiratory Syndrome (SARS-CoV/SARS) pandemic began in February 2003 and ended in July 2003 (Centers for Disease Control, 2005). The SARS virus originated in Guangdong, China in November 2002, and had a global infection rate of 8,422 individuals, including 916 deaths (Caldaria et al., 2020). Canada had 43 deaths related to SARS: six in Alberta and 24 in Toronto, Ontario (Infection Prevention and Control Canada, n.d.; Low, 2004).

SARS shares similar symptomology as the flu, contributing to the initial diagnostic confusion within Canadian healthcare settings. SARS symptoms include a fever of 100.4°F, dry cough, sore throat, difficulties breathing, shortness of breath, headache, body aches, loss of appetite, malaise, chills, night sweats, confusion, rash, and diarrhea. Breathing issues appear within 2-10 days after exposure to the virus, with 10-20% of cases requiring ventilation, and most individuals developing pneumonia (Centers for Disease Control and Prevention, 2005; Johnson, 2017).

Government and Healthcare Agency Responses. Low (2004) explains that SARS had two phases resulting in patient deaths in Toronto, Ontario. During the first phase in March 2003, deaths were primarily due to the lack of knowledge regarding SARS' contagiousness and healthcare workers' lack of compliance of the contact and droplet policies. Approximately 43% of hospital healthcare workers became infected with SARS in Toronto hospitals (Styra et al., 2008). As more information was obtained and shared amongst countries, necessary precautions such as utilizing personal protective equipment were implemented. In May 2003, the second

phase of the SARS pandemic in Toronto, Ontario hospitals resulted from provincial directives that stipulated the non-requirement of healthcare professionals to continue to use personal protective equipment with non-SARS infected patients (Low, 2004; Singer et al., 2003).

Intrahospital transmission of SARS occurred between healthcare workers and patients, resulting in a dramatic increase of SARS-positive patients (Maunder et al., 2006). For example, a patient was admitted through the emergency room department for an unrelated medical condition and then transferred to an inpatient unit, was at risk to contract SARS due to the lack of staff using PPE. Furthermore, directives regarding social distancing were no longer encouraged or demanded by hospital policies; therefore, staff members began to enjoy eating meals and socializing together. Interestingly and notably, the progressive contraction and transmission of the SARS virus within the hospital likely resulted from *Clostridium difficile*, a bacterium found in feces and spread due to inadequate handwashing by healthcare workers in contact with patients. Implementing stricter guidelines around hand hygiene, quarantine, social distancing, and personal protective equipment resulted in the elimination of SARS, especially by those described as 'super spreaders' (Low, 2004; McDonald et al., 2004).

COVID-19

The SARS-CoV-2 virus is the current strain of the COVID disease afflicting the globe, with a reported 220 countries and territories with confirmed cases as of August 2021 (Worldometer, 2021). This strain of SARS-CoV-2 and the emerging variants are virulent and can substantially impact the health of those infected. The symptoms of COVID include fever or chills, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, loss of smell or taste, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea (Centers for Disease Control and Prevention, 2020a; Smith, 2020). The majority of individuals

experience the onset of symptoms within 11-12 days after exposure. The virus incubation period is 1-14 days, and hospitalized individuals are provided supportive medical interventions depending on their symptomology (Harapan et al., 2020).

The Centers for Disease Control and Prevention (2020) reports that the physical and emotional implications of contracting COVID can last for weeks to months. Some of the most significant long-term effects include difficulties in concentration and thinking, depression, heart muscle inflammation, renal injury, sleep disturbances, and mood changes (Iadecola et al., 2020; Miller & Sleat, 2021; Shah et al., 2021). These long-term COVID symptoms impact an individual's daily functioning and negatively impact the workforce due to employee accommodations. Ongoing research will continue to reveal the long-term health effects of COVID on individuals (Centers for Disease Control and Prevention, 2020; Shah et al., 2021).

Government and Healthcare Agency Responses. The Centers for Disease Control and Prevention (2020) and the World Health Organization (2020) encourage every country, territory, and individual to adhere to their guidelines to prevent the spread of COVID. The guidelines incorporate information from previous pandemics and current COVID research. They include lockdowns of businesses and other institutions, quarantine regulations if symptomatic or a close contact of a positive individual, social distancing, wearing face masks in public, and high standards of hand hygiene and sanitization in public places (Harapan et al., 2020; Daly et al., 2021; Gordon et al., 2020). Following and adhering to recommended guidelines results in a reduction in the transmutability and transmission rate of COVID.

Ongoing research by institutions worldwide continuously provides information regarding COVID’s genomic sequencing, appropriate vaccine development, and strategies to eradicate the virus (World Health Organization, 2021b; Behrmann & Spiegal, 2020). COVID has been a

global pandemic for over a year as of the writing of this paper, and there have been several variants identified because of COVID's high transmission rate and transmutability (World Health Organization, 2021; Korber et al., 2020). The World Health Organization (2021) explains that mutations are a normal evolution of a virus and that ongoing research will ensure public safety.

Current strategies to stop the spread of COVID follow the recommendations developed from previous pandemics. Boregowda et al. (2020) completed a comprehensive literature review and indicate that the virus's transmission occurs primarily from human to human via respiratory droplets, secretions, sputum, and oral-fecal contamination. Social distancing and hand hygiene are critical to reducing the virus's spread because respiratory droplet emission can occur up to six feet in distance. When a non-infected person unintentionally touches a mucous membrane (mouth, eyes, and or nose), this can allow the virus to enter the body and begin its incubation period. COVID infection numbers and deaths are continuously increasing globally, perpetuating the virus's ability to mutate and adapt to environmental conditions (Boregowda et al., 2020; Korber et al., 2020).

The World Health Organization (2020a) encourage every country, territory, and individual to adhere to their guidelines to prevent the spread of COVID. These recommendations are founded on knowledge learned during previous pandemics and current research. They include lockdowns of businesses and other institutions, quarantine regulations if symptomatic or considered a close contact, social distancing, wearing face masks in public, and high standards of hand hygiene, and sanitization in public places (Harapan et al., 2020; Daly et al., 2021; Gordon et al., 2020). By adhering to the recommended guidelines, a reduction in the transmutability and transmission rate of COVID will occur.

Lessons Learned and Mental Health Implications

The research on the Spanish Flu, SARS, and COVID pandemics all demonstrates substantial impacts on the public's physical and emotional well-being and, by extension, the wellness of our healthcare staff and system. Managing and mitigating a virus's transmission within a community is overwhelming for all involved, including politicians, those working in healthcare agencies, citizens, and healthcare workers. The research gathered on the Spanish Flu and SARS pandemics indicates that social distancing, wearing masks, increased hand hygiene, disinfecting, and isolating, and quarantine policies have proven effective in eradicating these particular viruses (Gordon et al., 2020; Low, 2004; Ott et al., 2007; Sattenspiel & Herring, 2003; Singer et al., 2003; Trilla et al., 2008).

As advancements in science and technology occur, so does the development of effective medication, vaccines, and medical equipment. COVID is having long term and tragic effects on more vulnerable populations who become infected, in spite of the development of medication and medical equipment. Not only are there the physical implications of COVID on healthcare workers, but there are serious mental health ramifications on healthcare workers that must be addressed promptly. Walton et al. (2020) state that COVID will leave its psychological footprint more than its medical one.

Previous Pandemic Mental Health Implications

Spanish Flu. The mental health implications for healthcare workers following the Spanish Flu are not well-documented. Some case studies share nurses' personal stories following the Spanish Flu's heightened state of emotion and workload. Gordon et al. (2020) report that in six case studies following the pandemic, nurses experienced headaches, sleep disturbances, depression, and tremors. Two nurses were diagnosed with neurasthenia, psychoneurosis, debility, and exhaustion psychosis. These diagnoses do not exist in the current Diagnostic and Statistical

Manual of Mental Disorders (2013). In the six years following the Spanish Flu pandemic, for the first time, there was a steady annual rise of 7.2 individuals admitted with mental health issues (Eghigian, 2020). Interestingly, Eghigian (2020) refers to Alfred Crosby's *Epidemic and Peace, 1918,* highlighting that decades passed without the healthcare system addressing the biopsychosocial effects of the Spanish Flu. Crosby, cited by Eghigian (2020), reveals that "To many historians, this collective silence is as much a part of the pandemic's story as the course of the disease itself" (para. 3). This statement speaks to the profound physical, emotional, and mental health ramifications of the Spanish Flu.

SARS. The mental health outcomes from the SARS pandemic varied from immediate to long-term symptoms (Lung et al., 2009). The more immediate mental health symptoms included fear and anxiety due to the unknown etiology of the infectious disease and the risk of contracting the disease, and death. The longer-term mental health outcomes include one or all of the following: depression; post-traumatic stress disorder (PTSD); psychosomatic presentations; and significant emotional distress. These mental health outcomes occurred in 18-57% of healthcare workers (Maunder et al., 2006; Lung et al., 2009). These findings suggest that it is imperative to have mental health supports identified and mobilized quickly once a pandemic or traumatic event occurs (Maunder et al., 2006; Wu et al., 2020).

A 2020 systemic review of the mental health impact of SARS on healthcare workers identified several psychiatric diagnoses: depression rates between 13.5-44.7%; anxiety rates between 12.3-35.6%; acute stress reaction rates between 5.2-32.9%; post-traumatic stress disorder rates between 7.4-37.4%; insomnia rates between 33.8-36.1%; and occupational burnout rates between 3.1-43.0% (Sanghera et al., 2020). Healthcare workers who had fewer social

supports and years of experience had more severe outcomes (Maunder et al., 2006; Sanghera et al., 2020).

Other factors that affected the mental health of healthcare workers during the SARS pandemic were occupation and culture. Lung et al. (2009) report that more physicians than nurses (35% compared to 25%) experienced adverse mental health outcomes. Another study reported higher mental health issues among nurses (Styra et al., 2008). The difference is likely due to cultural factors and values, as Lung's (2009) study focused on an Asian population and Styra's (2008) focused on the Canadian population-based in Toronto, Canada. Lung et al. (2009) reported that 17.3% of healthcare workers experienced mental health issues when SARS became controlled, and in a one-year follow-up, 15.4% continued to experience mental health issues. One hypothesis is that physicians (primarily male-dominated) experienced more mental health issues during SARS related to cultural norms of externalizing behaviours, such as somatic complaints and legal implications. Conversely, nurses (primarily female) experienced more internalizing symptoms such as anxiety and depression (Lung et al., 2009).

COVID. During the COVID pandemic, many healthcare workers have been diagnosed with various mental health disorders. The estimated prevalence rate of anxiety is between 30-70%, and depressive symptoms is between 20-40%, with other reports of comorbid issues such as insomnia, alcohol/drug misuse, burnout, anger and emotional exhaustion (Lai et al., 2020; Stuijfzand et al., 2020). Other factors affecting the well-being of healthcare workers include a lack of personal protective equipment (PPE), increased workload and expectations from managers, and provincial government plans to reduce healthcare staff (Braquehais et al., 2020; Vanhaecht et al., 2021). Health care workers require acknowledgement and evidence-based psychological interventions to reduce the long-term negative mental health consequences they

face as a result of the cumulation of personal and professional stress over the past several months (Walton et al., 2020).

It is not surprising that healthcare professionals are experiencing increased burnout symptoms related to working during COVID, and there are several factors contributing to this phenomenon (Morgantini et al., 2020). These authors describe burnout as emotional exhaustion, depersonalization, and decreased feeling of personal accomplishment at work that detracts from providing competent patient care and results from high job stress, increased workload, and poor organizational support (Morgantini et al., 2020). Furthermore, the study reveals that healthcare professionals identified their burnout rate as a 3/10 (10 being extreme) before COVID, and in September 2020, the results show that the number had increased to 8/10. Benfante et al. (2020) discovered that 7-34% of healthcare workers experience stress-related trauma from similar circumstances, as previously mentioned. Some contributing factors that fuel the feeling of burnout include: not feeling competent enough to provide safe care due to a lack of training and the availability of PPE; mental health issues such as depression, anxiety, and fear; and coping with general life stressors outside of the work environment (Gordon et al., 2020; Lai et al., 2020; Morgantini et al., 2020).

Biopsychosocial Impact of Quarantine and Increased Work Load for Healthcare Workers

The COVID pandemic has highlighted that society relies on the healthcare system; medical professionals are needed to care for COVID-positive individuals and individuals requiring hospitalization. In the 1990s there was a prediction that Canada would experience a 60,000 + nursing shortage by 2022; it is concerning that further nursing shortages may occur due to the impact of COVID (Canadian Nursing Association, 2019; Careers in Nursing, n.d). Several factors contributed to the predicted nursing shortage, including the hiring freeze in the 1990s,

ageing and retirement, nurses leaving direct patient care areas, and low interest in the profession. Furthermore, unhealthy work environments increase mental and physical stress, and in conjunction with staff shortages, result in longer working hours and overall work dissatisfaction (Brophy et al., 2021).

The literature explains the historical factors contributing to the Canadian nursing shortage, and the current healthcare climate with the COVID pandemic will likely exacerbate and expediate the nursing shortage crisis. Several healthcare workers are experiencing emotional despondency due to quarantine protocols. In addition, increased workloads during COVID are impacting nursing shortages and increasing work stress for healthcare workers (Brophy et al., 2021; Walton et al., 2020). The Centers for Disease Control and Prevention (2021b) recommends that a healthcare professional quarantine for 14 days after exposure to a COVID-positive patient and be tested for COVID. These recommended quarantine time frames result in increased workload demands and stress for health care professionals as there is a ripple effect amongst staff. For example, when one staff member tests positive, any staff member considered a close contact needs to self-isolate (Brophy et al., 2021; Walton et al., 2020).

Brophy et al. (2021) report that some hospitals interpret government recommendations differently and implement different guidelines regarding quarantine policies. For example, one nurse describes how her manager asked her to care for an asymptomatic COVID-positive patient without adequate PPE. Subsequently, the nurse became symptomatic, yet the manager stated that she could continue to work as she was not "adequately exposed to be considered a close contact because the patient was asymptomatic" (p. 270). Unfortunately, the nurse developed severe symptoms several days following her exposure and required hospitalization (Brophy et al., 2021).

When healthcare workers are expected to work increased hours this furthers the mental, emotional, and physical duress they experience (Mehta et al., 2021; Pearce, 2021). Another factor that increases the workload for healthcare workers is visitor restrictions. For example, many visitors help out with small tasks for their loved ones while in hospital, such as getting the patient a glass of water or an extra blanket. While many individuals may view this as a small task, getting a glass of water is time consuming for nurses, and an additional duty to be completed (Borphy et al., 2021). Overall, healthecare workers have to work extra hours, and experience exhaustion, anxiety, and depression because of the complexity of patient cases, requests for assistance from colleagues and mandated overtime because of staff illnesses (Mehta et al., 2021; Pearce, 2021).

Workplace enforced social distancing policies can negatively impact the mental health of health care workers as they are less able to decompress on their work breaks or talk with their colleagues (Mehta et al., 2021; Walton et al., 2020). Previous qualitative research by Moll (2014) reveals how mental health issues affect work productivity and work relationships within the healthcare setting. If a healthcare worker has a new, historical, or developing mental health issue, it puts colleagues in a potentially precarious situation. Such situations can include risks to patient safety and quality of care, colleagues not having the emotional energy to support their co-workers, or the need to report to the manager if there is a significant concern. Listening to the narratives of healthcare workers during COVID highlights the need for healthcare team members to feel a sense of cohesion, to be heard about their needs, and to view their work setting as a place of emotional and physical safety (Borphy et al., 2021; Daphna-Tekoah et al., 2020; Mukhtar, 2020; Wu et al., 2020).

Expeiences of shame and stigmatization are complicated dynamic factors resulting from

mental health issues in healthcare workers (Brophy et al., 2021; Dye et al., 2020). The shame healthcare workers feel results from maladaptive guilt that arises when making difficult decisions while caring for a patient with COVID (Cavalera, 2020). For example, healthcare workers may need to decide which patient receives medical interventions, or to inform family members that their loved one has died. Shame also stems from the potential or actuality of infecting a colleague or another patient, and the subsequent personal and work effects. Fear can increase a patient's reactivity when interacting with healthcare workers, increasing workplace violence. Dye et al. (2020) state that healthcare workers experience physical violence; specifically, they have been hit, coughed on, or spat at by patients. These incidents are more frequent during the pandemic. There are a variety of contributing factors resulting in increased violence towards healthcare workers during COVID, and the subsequent biopsychosocial impact on the healthcare worker is undeniable (Brophy et al., 2021; Cavalera, 2020; Dye et al., 2020).

Impact of Wearing Personal Protective Equipment

Healthcare workers are governed by standards and requirements to continuously wear PPE throughout their shifts, especially when having direct patient care; the negative impact on patients is noteworthy (Hofmeyer & Taylor, 2020). Healthcare staff and patients dislike the policy of continuous masking and social distancing because these policies have the potential to create barriers to communication and understanding (Marler & Ditton, 2021; Pal et al., 2020). For example, Marler and Ditton (2021) explain that patients with hearing difficulties may rely on lip-reading and hearing information to make informed decisions. If the patient cannot lip-read because of mask-wearing, they may not comprehend all the information, and due to frustration, the overall interaction may not be as therapeutic as it would be without masks. Staff need to take measures beyond standard practise to foster therapeutic relationships and decrease fear for

patients with distinct facial recognition deficits (prosopagnosia). One such strategy is wearing identification with a clear picture of the staff member's face (Marler & Ditton, 2021).

The impact of COVID on the daily lives of healthcare workers is irrefutable. The pandemic procedures that staff must adhere to, such as donning and doffing of PPE to protect themselves, their families, and other patients, affect the interactions healthcare workers have with their patients (Hofmeyer & Taylor, 2020; Marler & Ditton, 2021; Pal et al., 2020). Nurses must be creative in how they show empathy and become comfortable with showing affection/touch while wearing PPE. Comfort with touch while wearing PPE becomes particularly relevant when a patient is dying (Hofmeyer & Taylor, 2020). Due to the current policies and regulations in some countries, there are a limited number of family members allowed to be by a patient's bedside, and often, nurses are the only ones physically present when a patient dies (Wakam et al., 2020).

Mental Health Diagnoses Developing during COVID

As the awareness and severity of the COVID pandemic became a reality in North America, healthcare workers have become increasingly concerned about their physical safety, as well as infecting others (Otu et al., 2020). The early months of the COVID pandemic saw healthcare workers educating themselves about COVID, adjusting daily work life to new policies and procedures and, sadly, witnessing daily increases in infection and death rates. As healthcare workers navigate the COVID pandemic, each individual experiences the implications of COVID incidents uniquely. For example, a nurse working in the emergency room department will have a different experience than a nurse who works in mental health.

The stress that has arisen during the pandemic is resulting in healthcare workers increasingly experiencing acute, chronic, and/or complex trauma (Allarakha, 2021; Leonard,

2020). Acute trauma symptoms usually result from a single event and can have a long-term impact on the individual; chronic trauma symptoms may appear later and usually result from prolonged exposure to a significant event, as has occurred during the COVID pandemic. Healthcare workers are likely to experience complex trauma because of the varying and multiple traumatic incidents they experience and observe (Allarakha, 2021; Leonard, 2020). Depending upon how healthcare workers processes and internalize their experiences during COVID, the impact on their mental health can be either short-lived or develop into longer-term psychiatric disorders. Therefore, an awareness of how the increasing work strain and the emotional impact of facing and working in healthcare during a pademic can result in healthcare workers exhibiting signs and symptoms of ASD (Benfante et al., 2020).

Acute Stress Disorder (ASD)

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM 5; American Psychiatric Association, 2013) categorizes acute stress disorder under trauma and stress-related disorders. The diagnostic criteria stipulate that an individual must have had exposure to actual or threatened death, serious injury, or sexual violation in one or more of the following ways: experience distress; witness in person events occurring to another; learn of an event that has occurred involving a family member or close friend; or extreme or repeated exposure to an adverse event (American Psychiatric Association, 2013). Furthermore, the presence of nine or more symptoms must be present in any of these categories:

- intrusions (intrusive memories and or dreams, flashbacks, intense psychological or physiological reactions triggered by the trauma)
- negative mood (loss of emotions)
- dissociative symptoms (depersonalization, derealization, memory gaps of the traumatic

event)

- avoidance (avoiding persons, places, and things that are reminders of the trauma)
- arousal (sleep disturbances, irritability, hypervigilance, decreased concentration, hyperarousal) (American Psychiatric Association, 2013).

It is critical to note that the onset of ASD is typically right after the exposure to trauma and the duration of symptoms the individual experiences is for at least three days to one month. The symptoms must cause significant distress or impairment in social, occupational, or other important life areas to meet the diagnostic criteria (American Psychiatric Association, 2013).

When healthcare workers experience psychological stress, the adrenal medulla and hypothalamus-pituitary-adrenal (HPA) axis, both aspects of the sympathetic nervous system, become activated (Kang et al., 2020). The sympathetic nervous sytem regulates physiological responses to stress and promotes and restores homeostasis by regulating cortisol levels, a process known as allostasis (Seo et al., 2018; Ullman et al., 2019). The amount and duration of stress negatively influences the body's compensatory stress mechanisms, and its cumulative effects are known as the allostatic load. As the allostatic load increases because of an individual's inability to mobilize resources to cope with their stress, the long-term consequences are an allostatic overload (Ullman et al., 2019). The activation of these two physiological response systems in conjunction with allostatic overload can affect an individual's mental and physical health, resulting in the initiation of a disease process or psychiatric disorder (Kang et al., 2020).

Maintaining a healthy balance can be difficult as healthcare workers continuously try to adjust to their evolving work environments and home lives. Allostatic overload affects healthcare workers' ability to adjust accordingly to their situation resulting in a potential acute stress disorder (Shahrour & Dardas, 2020; Ullman et al., 2019). Some researchers have conflicting

opinions on whether individuals diagnosed with ASD have a higher propensity to develop post-traumatic stress disorder (PTSD). Madanes et al. (2020) indicate that ASD does not accurately predict the likelihood that a healthcare worker will develop PTSD, while Shahrour and Dardas (2020) explain that healthcare workers who have ASD during COVID are 91% more likely to develop PTSD later on. Fanai and Khan (2021) agree that there is an increased likelihood that individuals with ASD will develop PTSD and that these individuals have a 2-5 times greater risk of attempting suicide or completing suicide. Furthermore, if a healthcare worker develops ASD and then PTSD, there is an increased risk of developing a substance use disorder (Dutheil et al., 2019; Fanai & Khan, 2021). Early diagnosis and interventions can mitigate the development of other clinically significant psychiatric disorders (Restauri & Sheridan, 2020).

Burnout

There are several reasons for excluding the diagnosis of burnout in the DSM-5; this exclusion does not discount the prevalence of burnout amongst healthcare workers pre-COVID and during COVID. The term burnout was first coined and defined by Freudenberger in 1974 as the extinction of motivation with feelings of hopelessness, fatigue, instantaneous irritation and a totally negative attitude towards work (Woo et al., 2020). In the 1980s, Maslach and Leiter (2016) defined burnout as a psychological state resulting from an individual's prolonged exposure to emotional or psychological stress at their job:

> Burnout is the index of the dislocation between what people are and what they have to do. It represents an erosion in values, dignity, spirit, and will- an erosion of the human soul. It's a malady that spreads gradually and continuously over time, putting people into a downward spiral from which it's hard to recover. (Adriaenssens et al., 2015, p. 650)

Individuals often use compassion fatigue and burnout interchangeably, but there are

critical differences between these two constructs. Ruiz- Fernandez et al. (2020) define compassion fatigue as secondary traumatic stress from caring for other's emotional pain and the wish to relieve the pain and suffering of that individual. Burnout is defined as emotional exhaustion, depersonalization, and lack of fulfillment from work because of exposure to continuous stressors in the work environment. Bradley and Chahar (2021) expand upon the symptoms of burnout amongst physicians, especially during COVID, including cynicism, low personal achievement, irritability, insomnia, depressive or aggressive reactions to stress, increased errors, and increased staff turnover. Overall, Henson (2020) provides a simple and understandable explanation of compassion fatigue as the sudden onset of emotional and behavioral changes resulting from the depletion of compassion because of exposure to suffering and trauma. Conversely, burnout is the accumulation of stress related to the work environment and has a slower onset of symptoms that includes personality,value, and behavioural changes . Sadly, Sultana et al. (2020) and Cotel et al. (2021) indicate that 31%-54.3% of physicians in the United Kingdom are reporting emotional exhaustion, and 11.23% of nurses are experiencing burnout globally during the COVID pandemic.

The exclusion of burnout from the DSM 5 is due to its similar presentation and symptomology to depression (Maslach & Leiter, 2016). While there are similarities, there is one crucial distinction between depression and burnout. Depression is pervasive in most life domains and can either be neurobiological or situational, while burnout is primarily in the context of work. Burnout may be a precursor to a healthcare worker developing depression due to changes in their work environment during COVID. Burnout tends to be contagious within the work environment, impacting interpersonal collegial relationships and job performance, and perpetuating the symptomology of burnout and other mental health disorders (Maslach & Leiter,

2016).

Bianchi et al. (2015) discuss other explanations for burnout being excluded from the DSM 5: the burnout construct is fragile; the structure and development of burnout is incoherent; and burnout is nosologically discriminant. Conversely, the WHO declared burnout as an "occupational phenomenon" in 2019, and burnout is currently listed in the International Classification of Diseases 11th revision (ICD-11) (Woo et al., 2020). The authors indicate that burnout is now considered a syndrome and a severe health issue due to "chronic workspace stress that has not been successfully managed" (p.1). The Maslach Burnout Inventory and the Maslach Burnout Inventory – General Survey (all careers), Bergen Burnout Inventory (BBI) and The Oldenburg Burnout Inventory (OLBI) are a few standardized tests that measure and assess the level of burnout and other correlated symptoms in healthcare workers (Cotel et al., 2021; Maslach & Leiter, 2016). Determining the degree of burnout for healthcare workers can initiate a proactive approach to therapeutic interventions. Conversely, there are no standardized inventories to assess or measure the degree of compassion fatigue a healthcare worker may be experiencing, decreasing its validity as a diagnosis/syndrome.

Woo et al. (2020) further explain that in 2016 the WHO predicted that there would be a global shortage of 7.6 million nurses by 2030, and that 35% of registered but non-working nurses report burnout as their reason for leaving the workforce. It is critical to identify burnout symptoms amongst healthcare workers and encourage them to seek professional support. While the WHO has acknowledged the health implications of burnout, especially in healthcare workers, there are benefits to excluding the diagnosis from the DSM 5. For example, eliminating burnout from the DSM 5 reduces the risk of pathologizing a healthcare worker’s experience during this pandemic and may normalize many of their thoughts and emotions. The process of normalizing

their thoughts and emotions promotes a sense of hope that the healthcare worker is in control of their well-being (Woo et al., 2020).

Sleep Disturbances

Dr. Ilene Rosen from John Hopkins Hospital explains a phenomenon termed "Coronasomnia" as the negative impact of sleep disturbances on the general population and healthcare workers during the Covid pandemic (American Medical Association, 2020). Sleep disturbances amongst healthcare workers are not new, but an overall statistical trend indicates an increase in sleep disturbances since the onset of COVID. The statistics regarding sleep disturbances vary depending on when the research took place, in which country, and their guidelines for defining sleep disturbances or insomnia. For example, He et al. (2020) report that 29.9% of healthcare workers in Asia experience COVID-related sleep disturbances, and San Martin et al. (2020) report that 57% of healthcare workers in Spain experience sleep disturbances. Fortunately, Jahrami et al. (2021) completed a systematic review of sleep disturbances during COVID that included 54,231 participants in 13 countries; 36% of healthcare workers globally suffered from disrupted sleep. Furthermore, there are varying reports about the prevalence of sleep disorders amongst nurses and physicians during COVID. Salari et al. (2020) report a 34.8% sleep disturbance rate amongst nurses compared to Zhou et al.'s (2020) report of 19.5%, and the variance in statistics fluctuates on reports for physicians.

Approximately one-third of the general population experience insomnia intermittently, and symptoms should not be confused with other clinical diagnoses (Kocevska, 2020). To be clinically diagnosed, an individual must meet the criteria in the DSM 5 (American Psychiatric Association, 2013), which defines *insomnia* as the difficulty initiating sleep, maintaining sleep, early morning awakening and difficulty with returning to sleep. Insomnia can be further defined

as episodic, persistent, recurrent, or otherwise specified. Kocevska (2020) clarifies that insomnia is not a primary diagnosis but is comorbid with other physical or psychiatric diagnoses. A standard sleep quality assessment tool used in several research studies is the Pittsburgh Sleep Quality Index (PSQI) because of its high test-retest reliability and validity across different cultures and circumstances (Fontes et al., 2017; He et al., 2020; Jahrami et al., 2021; San Martin et al., 2020). Because the PSQI is a standardized assessment tool, therapists can administer it to healthcare workers to determine any sleep concerns. Early identification and intervention can reduce the onset of other psychiatric or physical disorders.

Krystal (2012) completed a study focused on understanding how sleep impacts psychiatric disorders and vice versa. Below is a summary of their findings:

- **major depressive disorder (MDD):** Insomnia and hypersomnia increase the prevalence of MDD by ten times. In particular, insomnia significantly increases the likelihood of an individual developing a depressive disorder. Insomnia increases relapse rates of MDD and slows recovery times. Sleep disturbances significantly increase the risk of suicidal ideation, attempt, and completion. Sleep patterns include difficulty falling asleep, staying asleep, poor sleep quality, nightmares and daytime sleepiness.
- **bipolar disorder (BD):** Sleep is significantly impacted during a manic episode for individuals with BD. Mania decreases the overall amount and quality of sleep which impacts the brains ability to function to its greatest capacity. Furthermore, decreased restful sleep etiologically impacts the resolution of a manic episode. Many psychotropic medications used to treat BD have sedating effects which promote a healthier sleep pattern and promote brain healing and functionality.
- **generalized anxiety disorder (GAD):** Insomnia is a contributing factor in the

development of GAD. Individuals with GAD can experience either difficulty falling asleep and or remaining asleep. Krystal (2012) suggests individuals may struggle with a more extended latency period for sleep onset and frequent awakenings with longer periods of wakefulness.

- **post-traumatic stress disorder (PTSD):** Individuals who suffer from disrupted sleep one month after exposure to a traumatic event are at greater risk of being diagnosed with PTSD. Nightmares are a unique characteristic of PTSD (Richards et al., 2019). Also, contrary to Kristya's (2012) report, up to 90% experience sleep disturbances such as insomnia and poor sleep quality (Richards et al., 2020).
- **alcoholism:** Sleep disturbances, especially insomnia, increase an individual's likelihood of developing alcoholism or abusing alcohol (36-72%). Many use alcohol for sleep promotion, but as tolerance develops, the perceived restfulness following alcohol consumption dissipates. Alcohol may induce sleep, but disrupts restful and deep sleep. REM (random eye movement) sleep becomes disrupted in those diagnosed with alcoholism, and even with abstinence, can take a long time to recover to baseline functioning.

There is an assumption that most healthcare workers will experience intermittent sleep disturbances during the pandemic because of hyperarousal of the sympathetic nervous system (Posner et al., 2020). Hyperarousal of the sympathetic nervous system becomes detrimental when the parasympathetic nervous system cannot override the sympathetic nervous system and allow the body to rest. For example, nightmares and parasomnia (abnormal movements during sleep) are usual and adaptive physiological responses following exposure to trauma (San Martin et al., 2020). When healthcare workers develop chronic nightmares, it is indicative that a

disruption of the trauma event's assimilation with the individual's experience has occurred. This failure to assimilate information and poor sleep quality can lead to work performance issues (San Martin et al., 2020).

The American Psychiatric Association (2020) and Clement-Carbonell et al. (2021) further confirm that sleep quality affects work performance, concentration, memory, overall mental health, and job satisfaction. Furthermore, disruption of an individual's circadian rhythm can impact physical health during stressful circumstances like COVID. Short-term consequences of disrupted sleep include increased stress responsivity, somatic complaints, and susceptibility to illnesses (Medic et al., 2017). The long-term effects of sleep deprivation include the development of cardiac issues such as hypertension, type 2 diabetes, weight fluctuations, and colorectal cancer. Heidarimoghadam et al. (2019) describe how excessive physical and mental workloads disrupt restorative sleep, increasing the propensity for musculoskeletal injuries or disorders. If a healthcare worker suffers a musculoskeletal injury at work, the perceived pain affects restful sleep patterns, and a vicious cycle begins. COVID-related sleep disturbances affect healthcare workers' performance and health, and negatively affect patient care (Salari et al., 2020). Sleep issues in healthcare workers must be addressed, assessed, and treated in a timely fashion. Utilizing standardized psychological tests ensures that therapists are accountable for their therapeutic interventions and that clients receive evidence-based therapy.

Standardized Assessment Tools

The DSM 5 is the current gold standard that clinicians use to determine an individual's diagnosis. A drawback of utilizing the DSM 5 for some novice therapists is that they may hold pre-determined notions and biases about how a specific mental illness will present instead of observing acute presentation and resolution in an acute care setting, such as a hospital (Paris,

2013). Utilizing standardized assessment tools is beneficial to the novice and experienced clinician as it circumvents personal biases and confirms a DSM 5 diagnosis. Currently, the DSM 5 outlines the diagnostic criteria for ASD and sleep disturbances but excludes burnout; therefore, the clinician must use critical thinking skills and standardized assessment tools to determine the level of burnout a healthcare worker is experiencing.

Utilizing standardized psychological assessments provides diagnostic clarity, which then guides therapeutic interventions and provides the opportunity to evaluate treatment effectiveness (Bornstein, 2016). Furthermore, standardized assessments provide valuable information on the behaviours, thoughts, and emotions experienced by the test-taker that can influence future research and policy development. Standardized psychological assessments contain three essential characteristics: guidelines for administering the test, item scoring values, and measures of the desired behaviour. Utilizing standardized tests increases the validity and reliability of an accurate diagnosis and facilitates a collaborative discourse with the client regarding appropriate treatment goals (Hoijtink et al., 2014). The use of standardized tools reduces the likelihood of biases and stereotypes resulting in erroneous diagnoses and clinical treatment plans, and communicates results to other professionals in a universal format (Borstein, 2016; Groth-Marnat, 2006).

The acute stress disorder scale and interview (ASDS/I) is the accepted standardized test used when diagnosing ASD (Bryant et al., 1998; Edmonson et al., 2010). Bryant (2016) and Bryant et al. (1998) explain that the development of the ASDS/I addresses the suffering and distress that individuals experience during a traumatic event when they do not meet the diagnostic criteria for post-traumatic stress disorder (this cannot occur until a minimum of one month following the traumatic event). The ASDS/I tool differentiates between a transient acute reaction and ASD, and thus identifies individuals who are likely to remit independently and

those requiring mental health intervention. Early therapeutic intervention with trauma-informed cognitive behavioural therapy for those diagnosed with ASD can mitigate the development and chronicity of post-traumatic stress disorder (Bryant, 2016; Bryant et al., 1998; Fanai & Khan, 2021).

The Maslach Burnout Inventory (MBI) was developed to identify individuals suffering from the physical and psychological effects of burnout (Fontes et al., 2020; Maslach & Leiter, 2016). In 1971, Freudenberger, a psychoanalyst working privately and then in a free community clinic, coined the colloquial term 'burn out' through discourse with his colleagues (Fontes, 2020). The impact of clinical demand on all healthcare workers at his clinic became evident as time progressed, and many of them experienced gastroenterological disturbances, sleep issues, and fatigue. The evident psychological effects of health care work in this context included frequent emotional reactivity, depression, and sometimes identifying as omnipotent, which led healthcare workers to take unnecessary risks and become inflexible with their patients. Freudenberger studied and described the correlation between how a healthcare worker feels and their interactional relationship with patients. Understanding caregiver burnout, from the global impact on the caregiver's quality of life to the impact on patient care, absenteeism, and corporate economic ramifications, is essential (Fontes, 2020; Maslach & Leiter, 2017; Morgantani et al., 2020). A therapist who understands the overall impact of burnout can intervene with appropriate therapeutic interventions such as psychological first aid (Morgantini et al., 2020).

Buysse and colleagues developed the Pittsburgh Sleep Quality Index (PSQI) in 1988 in order to better understand the sleep quality of psychiatric patients (Buysse et al., 1989). The authors describe the long history and correlation of sleep quality with the development of psychiatric disorders and poor health (Krystal, 2012; Worley, 2018). Understanding a client's

perception of their sleep quality can result in the implementation of an effective sleep treatment plan, thereby mitigating the potential for a client to develop a psychophysiological disorder. Such therapies may include cognitive behavioural therapy and development of sleep hygiene strategies (American Academy of Sleep Medicine, 2020; Worley, 2018).

COVID is a global pandemic that has resulted in more lives lost compared to SARS, and that has exposed healthcare workers to working conditions that were unimaginable previously. Therapists working during and post-pandemic will be vital in supporting the restoration of psychological and overall well-being of healthcare workers. This work will be essential to ensure the future interest of the healthcare field. It is necessary for future research to investigate the mental health implications of the COVID pandemic for healthcare workers so that clinicians and managers can better support their staff in future pandemics or crises, and determine the most effective therapeutic interventions.

Implications for Counselling Psychology

Therapists providing mental health support to healthcare workers during COVID should have a firm understanding of a therapeutic modality that resonates with their values, beliefs, and morals. Therapists should utilize modalities that resonate with their values to facilitate an authentic and therapeutic relationship with their healthcare worker clients. The therapeutic relationship is critical to a client's success during therapy (Nienhuis et al., 2016; Rogers, 1959; Noyce & Simpson, 2016). The therapist must navigate, validate, and normalize the healthcare workers' experiences during COVID, further highlighting the importance of the therapeutic relationship during this pandemic.

Therapeutic Relationship Development

In the 1950s, Carl Rogers founded a therapeutic modality that a therapist can use to

develop a working therapeutic alliance with a healthcare worker. Carl Rogers' person-centred therapeutic model is deeply rooted in the therapist-client journey, an understanding of the human spirit, and a belief that clients desire self-actualization (Rogers,1959). Furthermore, Rogers believed that clients possess internal resources and skills, are trustworthy, self-aware, and driven to lead fulfilling and productive lives (Shefer et al., 2017).

Thorne and Lambers (1998) explain that clients seek out support when experiencing distress, hopelessness, and an inability to make decisive and healthful choices. When the client steps into the therapy journey, the therapist must willingly and whole-heartedly delve into the therapeutic relationship to instill hope for the client's future. Therapists create safe environments for clients to express themselves; safety instills hope and is accomplished by the therapist's never-ending sense of curiosity about and empathy for the client's experiences, thoughts, and feelings (Rogers, 1959; Noyce & Simpson, 2016). Rogers (1959) believes that client change stems from the therapist being non-judgmental and journeying with the client versus 'doing' something for the client (Crisp, 2014). There is little emphasis on specific techniques to use with a Rogerian approach. The goal is to help facilitate personal growth, decrease distress, enhance self-esteem, and encourage openness to new experiences (Crisp, 2014).

Using a Rogerian person-centred therapy model is only one example of how a therapist can form a therapeutic alliance with a healthcare professional-client during COVID. Examining the Rogerian person-centred therapy modality reminds mental health clinicians to engage in empathetic and non-judgmental relationships with their clients before exploring interventions. The therapeutic relationship remains at the forefront in rehabilitating the mental health of a healthcare worker during therapy (Nienhuis et al., 2016; Noyce & Simpson, 2018).

Clinical Therapeutic Interventions

With the therapeutic relationship established, the therapist and healthcare worker must work collaboratively to identify the most efficacious coping strategies for the client to utilize in their professional and personal environments. Depending on the client's needs, several therapy models can aid their journey to wellness. Upon reviewing the literature, there was no recommended gold standard of therapy for healthcare workers due to the newness of this global pandemic and lack of research. However, some literature did recommend interventions such as psychological first aid, trauma-informed care, and cognitive behavioural therapy as the most efficacious.

Psychological First Aid, CREATE, and Recovery

Whether a therapist is providing treatment in the context of individual therapy or in a hospital or community clinic setting, the literature describes the necessity of early psychological intervention to reduce the sequelae of long-term mental health issues. Combining the principles of the therapeutic relationship and psychological first aid (PFA) addresses the client's needs early on. Psychological first aid was developed early in the twentieth century and became the primary therapeutic intervention initiated during a disaster (Forbes et al., 2011; Schulz & Forbes, 2014).

Psychological first aid (PFA) is a supportive and compassionate response to a fellow human being in a time of suffering (Sim & Wang, 2020). Implementing PFA's five elements of safety, calming, connectedness, self-efficacy, and hope after a disaster will help reduce the initial intensity of distress from the trauma and foster longer-term adaptive and coping strategies. It is vital to remember that not everyone perceives a traumatic event or disaster in the same way, nor will people have the same responses. Therefore, reassuring healthcare worker clients that their response is normal to an abnormal situation is essential (Hoffer & Martin, 2020; Everly et al., 2018). Joanisse (2020) states that early therapeutic intervention for a healthcare worker is

essential after a traumatic event. The therapist must provide hope through a sense of safety, and suggest coping strategies that are practical for the healthcare worker to use during work.

An example of PFA adapted to meet the needs of healthcare workers during COVID is a pilot project developed in Ontario, Canada. CREATE was founded by a multidisciplinary team at the Princess Margaret Cancer Centre in Toronto, Ontario, to address healthcare workers' physical, social, psychological, and spiritual needs during the COVID pandemic (Shapiro et al., 2021). CREATE is an acronym for "Compassion, REsilience And TEam building" and is similar to psychological first aid in that it is built on the belief that addressing healthcare workers' needs during a pandemic is critical. The CREATE program pairs thirteen psychological coaches with thirteen clinical managers of inpatient or ambulatory services. Each psychological coach manages between 1 to 4 units and proactively engages healthcare workers in addressing their physical and mental health needs (Shapiro et al., 2021). Having psychological coaches on the unit addressing healthcare workers' needs bypasses the need for healthcare workers to expend additional time, physical, and emotional resources to access community resources (Shapiro et al., 2021).

Once the implementation of PFA's five elements has occurred, it is essential to determine at which point the client is in their recovery process. Psychological recovery manifests when the height or intensity of distress begins to subside, but there is an awareness that symptomology remains (Berkowitz et al., 2010; Martin & Sturgeon, personal communication, April 6, 2021). Therapists must understand the human stress response, the stress continuum model, barriers to self-care, and effective strategies that are easy to implement. These strategies include cognitive approaches such as focusing on positives at work and at home, humour, acceptance, focused thoughts, and physical approaches such as mindfulness and deep breathing (Martin & Sturgeon,

2020; Williams & Rheingold, 2018).

When providing therapy to a healthcare worker it is critical to consider their organizational, personal, and cultural values (Mannion & Davies, 2018). For example, an emergency room healthcare worker may view and experience the mental health impact of COVID differently than a healthcare worker in plastic surgery. In order to promote mental health wellness, tailoring therapy to fit the needs of the healthcare worker with an understanding of their organizational and personal cultures is vital during COVID.

Trauma-Informed Care

In order to understand trauma-informed care, a brief overview of its development is pertinent. Trauma-informed care has historical roots in both the Vietnam war and in the 19th century, when Jean Charcot studied the underlying physical and psychological reasons for the onset of 'hysteria' in his female patients (Goetz, 2016; Jones & Wessely, 2006). Hysteria was no longer classified as a female mental disorder following the Vietnam war, because males who participated in the war exhibited similar clinical manifestations. The foundational theoretical construct underlying trauma theory and trauma-informed care is the connection between memories of a perceived threat and the manifestation of symptoms (Yeager et al., 2013).

The definition of trauma varies between clinical disciplines. However, fundamentally, trauma is when an individual experiences a real or perceived threat such as sexual abuse, violence, natural disaster, racism, poverty and oppression. Trauma can occur following a single event or may be a result of cumulative exposure (Collin-Vezina et al., 2020; Sweeny et al., 2018). The most common physiological response to a real or perceived threat, fear of danger, or environmental stimulus is fight/flight/freeze. Once the psychological stimulus is perceived, a physiological response is activated; trauma responses can manifest as flashbacks, panic attacks,

hypervigilance and avoidance behaviours (Collin-Vezina et al., 2020; Yeager et al., 2013). The psychophysiological response to trauma imprints on the brain's neurological pathways, making it almost impossible for the brain or the body to forget the event. If trauma is not processed effectively by the individual it can result in long-term psychosocial complications such as substance abuse, suicidal ideation, relationship and occupational difficulties, and inability to cope with daily living stressors (Sweeney et al., 2018).

Trauma-informed care is strengths-based, and aims to provide physical, emotional, and psychological safety for the client and provider. Safety arises from understanding the impact of a traumatic experience and focusing on empowerment strategies (Sweeney et al., 2018; Yeager et al., 2013). Furthermore, the therapist shifts their general view of the client from "What is wrong with you?" to "What happened to you?" This shift in viewpoint facilitates a recovery-based mindset because it acknowledges that the trauma led the client to adopt maladaptive ways of viewing their experience and maladaptive coping strategies (Sweeney et al., 2018; Levenson, 2017). A trauma-informed therapist understands that every client's experience is individual, and incorporates the client's cultural and moral beliefs, age, gender, and stage of life in conjunction with other factors when making meaning of the trauma (Sweeney et al., 2018).

There are six trauma-informed principles that therapists can implement during therapy sessions that facilitate open discussions around traumatic experiences and aid in discovering individualized therapeutic interventions. The first principle is ensuring the physical and psychological safety of the client (Collin-Vezina et al., 2020; Sweeney et al., 2018; Levenson, 2017; Reeves, 2015). The therapist ensures that the physical environment or the backdrop on a zoom call is inviting, tidy and well lit; the therapist also works with the client to establish a code word to be used if the client is in potential danger. Psychological safety is established through

the therapeutic relationship, being mindful of minimizing the power differential, being consistent, and approaching the topic in a shame-free and non-judgemental manner (Levenson, 2017; Reeves, 2015). Sweeney et al. (2018) highlight the therapist's responsibility to be mindful of not retraumatizing the client by using non-supportive language or delving into the story of the trauma too quickly.

The second trauma-informed principle is the development of trust between the therapist and client (Collin-Vezina et al., 2020; Sweeney et al., 2018; Levenson, 2017; Reeves, 2015). Understandably, trust develops over time, but some measures can facilitate its development more quickly. These measures include openness to discussing the trauma, transparency in expectations, and limitations of the therapeutic relationship (consent, disclosure). Furthermore, transparency also includes keeping the client informed of what choices and actions may have to be taken and including them in the decision-making process as best as possible (child welfare involvement, police). Principle three, offering the client choice, is imperative in the healing process because it promotes empowerment. Many healthcare workers are experiencing anxiety and a sense of loss of control during COVID (Collin-Vezina, 2020). It is beneficial to validate the healthcare workers' experiences and feelings and focus on their strengths. Furthermore, understanding their trauma triggers and responses will provide the opportunity to reframe those cognitions, explore other solutions, and practice emotional regulation (Levenson, 2017; Collin-Vezina, 2020).

The final three principles of trauma-informed care are peer-support, collaboration, and cultural considerations (Levenson, 2017; Collin-Vezina, 2020; Centers for Disease Control and Prevention, 2020). Accessing peer support during the pandemic can be limited due to social distancing rules, but the principle of social support is imperative on the journey to wellness

(Collin-Vezina et al., 2020). Healthy peer relationships foster effective coping strategies through mirroring coping strategies or information exchanges in open conversations. Practicing positive peer interactions can be done in therapy sessions by discussing the clients' positive peer support groups and focusing on what the client has learned, which helps maximize their agency (Colin-Vezina et al., 2020; Sweeny et al., 2018).

The principle of collaboration embraces partnership in decision-making regarding therapeutic interventions in the therapeutic relationship (Collin-Vezina et al., 2020; Levenson, 2017; Reeves, 2015). The therapist must encourage the healthcare worker to have and use their voice throughout treatment by empowering them to choose what is best for them. Furthermore, the therapist should discuss and collaboratively decide with the healthcare worker if other referrals, such as making a referral to a psychiatrist, would enhance treatment. The final principle of cultural considerations incorporates historical and gender issues (Collin-Vezina et al., 2020). This principle highlights that the therapist must be mindful of and move past their biases, stereotypes, and assumptions regarding the best course of action for the healthcare worker-client (Collin-Vezina et al., 2020; Levenson, 2017; Sweeney et al., 2018). Being curious about the client's cultural background and values will provide insight into the client's lived experience and make them feel heard, validated, and important (Collin-Vezina et al., 2020; Levenson, 2017; Sweeney et al., 2018).

Trauma-informed care is based on the understanding that trauma impacts individuals on a biopsychosocial level. When providing trauma-informed therapy to healthcare workers and processing trauma experienced during COVID, therapists need to recognize that past trauma may also be triggered. The therapist must recognize that healthcare workers may exhibit maladaptive coping strategies; therefore, it is critical to highligh positive aspects of coping and resiliency.

Healthcare workers are navigating many novel experiences during COVID; having a safe, respectful, open, and collaborative relationship with the therapist will continue to foster resiliency and agency (Collin-Vezina et al., 2020; Reeves, 2015; Sweeney et al., 2018).

Cognitive Behavioral Therapy

The literature review described the relevance of using Cognitive Behavioural Therapy (CBT) with healthcare workers during and post-pandemic. CBT strategies can address the diagnosis of acute stress disorder, and treat symptoms of burnout and sleep disturbances (Bryant, 2016; Maslach & Leiter, 2016). In the 1960s, Arron T. Beck developed and examined the importance of CBT in fostering mental health (Miller, 2021). The foundational construct of CBT is the interrelationship between the individual's cognitions, behaviours, and emotions. CBT promotes exploring the formation and maintenance of an individual's belief and how that belief impacts their current coping strategies (Dobson & Dobson, 2018; Miller, 2021; Robertson, 2019). The therapist's role is to help the client identify, understand, and modify their negative cognitions, emotions, triggers, and devaluing personal beliefs to empower them to change and incorporate effective coping strategies (Dobson & Dobson, 2018). Trauma-informed cognitive behavioural therapy involves developing cognitive strategies to challenge cognitive distortions and reframe the cognitions into more realistic and manageable thoughts. Furthermore, trauma-informed care incorporates collaborative approaches to client-centred care while acknowledging and respecting that past and current trauma affect the client at the moment (Hoffer & Martin, 2020; Oral et al., 2015).

The COVID pandemic creates new challenges and uncharted territory for the therapist when navigating a healthcare worker's emotions. Cabarkapa et al. (2020) note in their literature review that nurses working in a moderate-risk setting are experiencing more stress compared to

nurses working in high-stress settings. The authors suspect that non-married nurses are at greater risk of feeling stressed than married nurses. Therefore, a therapist must carefully consider all realms of a healthcare worker's life and utilize critical thinking and problem-solving skills when providing therapy to a healthcare worker. Having a global picture of healthcare workers' experiences and working collaboratively to identify treatment goals and interventions will foster a sense of control for clients when they feel powerless (Cabarkapa et al., 2020).

A therapist can further foster a sense of empowerment for the healthcare worker by using Socratic questioning to identify their values and why these individuals chose their profession (Clark & Egan, 2015; Waltman et al., 2017). Socratic questioning involves the therapist using a reflective and guided discovery style that enables the client to gain more profound knowledge and understanding (Braun et al., 2015; Clark & Egan, 2015; Waltman et al., 2017). A therapist uses socratic questioning to mitigate the potential influence of the therapists' biases (including a possible desire to guide the client to a particular conclusion), and to empower the client to become their own therapist (Beck, 2011; Waltman et al., 2016). Encouraging the client to explore the deeper meaning behind their chosen profession brings forth feelings of pride and may enable a healthcare worker to go on to save a life during a pandemic (Clark & Egan, 2015; Waltman et al., 2016).

Benhamou and Piedra (2020) outline CBT-informed therapeutic strategies when working with healthcare workers during the pandemic:

1. Meeting the clients' basic needs is critical. CBT interventions are an extension of PFA and focus on shelter, food, safety, clothing and sleep (Benhamou & Piedra, 2020; Sim & Wang, 2020).
2. The therapist should utilize empathic listening and validation. This strategy requires some

finesse in its implementation. It is important to normalize and validate what healthcare workers are experiencing during the pandemic because their experiences differ from those who are not healthcare workers (Benhamou & Piedra, 2020; Cabarkapa et al., 2020)

3. Validating the client ensures that they feel heard, which is vital during the COVID pandemic.

The therapist should also consider whether cognitive restructuring would be beneficial for healthcare clients during therapy sessions to avoid minimizing their experiences or making them feel 'crazy' (Benhamou & Piedra, 2020).

Another strategy the therapist should incorporate is value clarification with the healthcare worker (Benhamou & Piedra, 2020). The values of healthcare workers motivate and provide purpose to goal accomplishment. Understanding a client's value can promote behavioural changes because the client may be more likely to move towards a stimulus that causes anxiety versus avoiding it if they have a purpose in mind. Healthcare workers may profoundly shift their thinking and be encouraged to enact behavioural changes when asked to elaborate on why they chose their careers. Often, healthcare workers value serving others and potentially saving lives (Benhamou & Piedra, 2020). Supporting the development of interpersonal effectiveness is another effective intervention that coincides with value clarification (Albott et al., 2020; Benhamou & Piedra, 2020). An individual demonstrates interpersonal effectiveness when they are able to advocate for their needs to be met with an employer, family member, or friends.

It is vital to aid healthcare workers to develop skills in self-advocacy during the pandemic. Using the DEAR MAN acronym can help healthcare workers build the confidence they require to advocate for their needs in an effective manner (Benhamou & Piedra, 2020; Linehan & Wilks, 2015). The DEAR MAN skillset is a tool utilized in dialectical behavioural

therapy founded by Marsha Linehan in the 1970s (Linehan, 2020; Benhamou & Piedra, 2020). The client learns to *Describe* the issue using factual information or examples that both parties would understand and then *Express* their thoughts and opinions about the issue. Following this, the client is encouraged to be *Assertive* in making their specific request and *Reinforcing* their request. Reinforcement requires explaining the appreciation they will feel if their request is granted or explaining how the other party would benefit from granting the request. The MAN portion of the acronym explains the importance of the client being *Mindful* while making their request. Mindfulness will help the client stay focused during the conversation if the other party gets off-topic. Furthermore, being and presenting as *Assertive* during the meeting is beneficial, and the client should be open to *Negotiations* in the process of getting their request met (Benhamou & Piedra, 2020; Linehan, 2020). A healthcare client learning the DEAR MAN skills can provide a sense of empowerment during a stressful time such as the COVID pandemic.

Due to the increased stress that healthcare workers face during the pandemic and their increased susceptibility to mental health issues, clients are encouraged to self-monitor their thoughts, actions, and emotions, and practice behavioural activation (Albott et al., 2020; Benhamou & Piedra, 2020). Client self-monitoring by journal/log writing benefits the client and the therapist. For example, the client learns to see patterns in their thoughts, actions, and emotions and these discoveries foster insight and improve judgement. The therapist can learn about the client and help to explore these patterns if the client is feeling stuck. The component of behavioural activation highlights the importance of scheduling pleasant activities into the healthcare workers' day. Scheduling another task into one's day can be overwhelming, but knowing the activity will be pleasurable makes it less burdensome. Behavioural activation aims to get the client physically moving and monitor the effect of movement on mood. When

healthcare workers experience improved mood, this helps motivate them to continue doing positive activities (Benhamou & Piedra, 2020).

Benhamou and Piedra (2020) conclude their article by reinforcing the importance of limiting the amount of information the healthcare worker seeks. Being informed can be vital to job performance during a pandemic. It is critical to understand new policies and procedures, how the COVID virus mutates, and the different vaccines available, but perseverating on information can be detrimental. Individuals experience better mental health when they access trusted sources, limit the frequency of information gathering and limit time on social media (Benhamou & Piedra, 2020; Liu & Liu, 2020). Combining these CBT strategies into a therapy session will provide the healthcare worker with a sense of comfort, demonstrate compassion, and support the development of a new skill set that will empower them to enhance their mental health during and after COVID.

Assessment Tools

The therapeutic relationship between the therapist and the healthcare worker is vital; so are the standardized assessment tools utilized by the therapist during therapy. Assessment tools help determine a proper diagnosis based on the level of distress the healthcare worker is experiencing and support the identification of therapeutic interventions which are most beneficial (Lyon et al., 2015). The information collected during an assessment could help with understanding the mental health impact COVID has had on healthcare workers. Such information could inform policies and procedures for future pandemics. The following section focuses on specific standardized assessment tools the therapist can use during therapy with healthcare workers who may be experiencing acute stress disorder, burnout, and sleep disturbances.

Acute Stress Disorder Scale (ASDS)

The literature review indicates that early detection and intervention of ASD in healthcare workers may decrease the likelihood of these individuals developing long-term mental health issues post-COVID. In diagnosing ASD in healthcare workers, the therapist can utilize two strategies. One strategy follows the guidelines outlined in a semi-structured interview; the other utilizes a self-report inventory scale that the client completes (Bryant et al., 1998; Fanai & Khan, 2021). When utilizing the Acute Stress Disorder Scale (ASDS) the client answers 19 questions, and the therapist completes the scoring of the assessment. The ASDS is non-gender specific and developed for individuals 18 years and older. An important stipulation is that a therapist should administer the ASDS with knowledge about post-traumatic stress disorder within 3-29 days of trauma exposure. The ASDS cannot be used after the 29th-30th day post-trauma exposure because the criterion for PTSD will likely be met, but the therapist must use critical thinking to disern whether the symptoms meet ASD or PTSD criteria (Bryant et al., 1998; Fanai & Khan, 2021). For example, a heightened startle response usually emerges months after exposure to a traumatic event and is not usually present during the acute phase (Bryant et al., 2017).

Fanai and Kahn (2021) explain that individuals with ASD are 24 times more likely to complete suicide than individuals who do not have ASD. This statistic is concerning in itself, and because ASD is a predictor of PTSD, the therapist must be mindful to assess for both diagnoses if applicable. Bryan (2016) reports that individuals with PTSD and a comorbid mental health issue are 29 times more likely to die by suicide. Understanding the significant impact that ASD can have on a client's life emphasizes the importance of using accurate assessment tools to detect ASD and intervene early.

Maslach Burnout Inventory – Human Services Survey (MBI-HSS) for Medical Personnel

According to the literature, healthcare workers are at risk of experiencing burnout while working during COVID. A therapist may determine if a healthcare worker is suffering from burnout by utilizing the Maslach Burnout Inventory for Human Services Survey (MDI-HSS). The (MBI-HSS) three-factor structure was first described by Maslach and Jackson in 1981and was later confirmed in other studies (Lheureux et al., 2017). The three factors identified and assessed in these 22 item-assessment tools include emotional exhaustion, depersonalization, and personal accomplishment; the assessment tool takes approximately 10 minutes to complete (Lheureux et al., 2017; Maslach & Jackson, 1981; Wang et al., 2020).

Therapists who request their healthcare worker clients complete the MBI-HSS can determine a diagnosis of burnout and further diversify the topics of conversation for therapy. When reviewing their results with the therapist, healthcare workers can be encouraged to identify and normalize their feelings of burnout during COVID. Left untreated, severe burnout can lead some healthcare workers to use maladaptive coping strategies such as substance abuse (Maslach & Jackson, 1981; Wang et al., 2020). Assessing and discussing burnout with a healthcare worker during COVID provides opportunities for the client to express their thoughts and feelings, and to work collaboratively on the best course of treatment.

Pittsburgh Sleep Quality Inventory (PSQI)

The literature review highlighted that many healthcare workers experience poor sleep quality and sleep disturbances during COVID. Therefore, a thorough sleep quality assessment is beneficial when a healthcare worker presents for therapy. If sleep quality is improved, this can positively influence a healthcare worker's overall health, mood, and general mental health during COVID (Grander, 2016). A widely used standardized assessment tool to determine sleep quality is the Pittsburgh Sleep Quality Index (PSQI) (Buysse et al., 1989).

The PSQI is a widely used questionnaire that examines an individual's sleep quality and sleep disturbances over one month (Ibanez et al., 2016; Buysse et al., 1989; Mollayeva et al., 2016). The PSQI is a self-reported assessment containing 19 questions; the assessment can be used in several settings, is non-gender specific and can be used with adolescents and older clients. Other benefits of the PSQI include that it is available in 56 languages, has a shortened version available, and takes the therapist approximately 10 minutes to score (Buysse et al., 1989). A therapist's understanding of the healthcare client's sleep quality during COVID can open up conversations around sleep hygiene, other psychiatric disorders that may be contributing to sleep quality, and discussions about seeing a family doctor to discuss medication (Clement-Carbonell et al., 2021; Krystal, 2012).

Suicide Risk Assessment

It is standard practice to evaluate a client's suicide risk during treatment regularly. The risk for suicide can change depending on environmental factors and the client's mental state (Sadek, 2019). It is critical to complete a suicide risk assessment on healthcare professionals and not assume that they will be forthcoming with suicidal ideation, plans, or intent because they are a part of the healthcare system and have effective coping strategies (Dutheil et al., 2020). The risk of suicide completion potential is higher during the COVID pandemic amongst healthcare workers due to mental health stigma, acute stress disorder, burnout and other contributing factors. This elevated suicide risk was also evident during previous disasters (Fanai & Khan, 202; Fitzpatrick et al., 2020; McCabe et al., 2014). Calati et al. (2020) report that only 1 in 4 individuals will disclose suicidal intention before attempting; therefore, the therapist must be mindful to ask thoughtful and thorough questions when assessing suicide risk in their clients.

Interestingly, Calati et al. (2020) describe the importance of therapists being mindful of

negative or heightened emotional responses towards clients who express suicidal ideation because of the potential to fracture the therapeutic alliance. Before determining the best course of action, the therapist should gently explore the client's suicidal thoughts (passive versus active), means of suicide, and general risk and protective factors. Lai et al. (2018) report that passive suicidal ideation is the desire to die, but there is no plan, whereas active suicidal ideation includes a plan. It is important to note that passive suicidal ideation offers the therapist time to intervene, but passive thoughts can quickly become active. Dutheil et al. (2019) report that physicians are at a greater risk of completing suicide, especially females and those in the area of anesthesiology, psychiatry, family practice, and general surgery. When clinicians maintain the therapeutic alliance, and complete regular suicide risk assessments based on the understanding that passive suicidal ideation can become active, healthcare workers feel comfortable disclosing their suicidal thoughts.

If the therapist concludes that the healthcare worker is experiencing active suicidal ideation, careful consideration is required because they are at higher risk than the general population to attempt or complete suicide (Dutheil et al., 2019). It is critical to weigh all the ethical obligations of nonmaleficence and client safety with the potential trauma of transporting the healthcare worker to the hospital (Canadian Psychological Association, 2017). For example, if there is no immanency, but there is a high risk, conveyance of the healthcare worker to the hospital may be more traumatic for them because of potentially encountering colleagues they know. Collaboratively problem-solving and safety planning with the healthcare worker is imperative to ensure their well-being and overall mental health.

Appropriate actions are required if the therapist determines that the healthcare worker is in imminent danger of suicide. The therapist should be knowledgeable about the policies and

procedures for their region and follow the guidelines outlined by the employer. If therapy is community-based, the best course of action is to contact the local police department and describe the situation. Depending on the circumstances, it may or may not be appropriate to inform the client of the call to the police. Some clients may negatively respond to the knowledge that police officers will attend and abscond from the session. In contrast, others may willingly acknowledge their need for help and work collaboratively to call the police. When officers present to the scene, it is necessary for the therapist to communicate the suicide risk and advocate for officers to transport the healthcare client to a hospital they do not work at to preserve the client's dignity and confidentiality. Furthermore, if the therapist can determine which hospital the client is at, they can call and provide collateral information to the treatment team and advocate for the hospital admission. The process of calling officers for a healthcare worker-client can be uncomfortable, and the therapist should take measures to debrief the situation with trusted colleagues or a supervisor.

Other Therapeutic Interventions

A therapist's understanding of COVID and the current concerns healthcare workers face, such as fear of being infected, workplace stress, and current political issues affecting healthcare workers, will help develop practical treatment goals for the healthcare worker client. The therapist should know coping strategies that can be quickly implemented in the work environment and help the client practice these in the therapy session. For example, healthcare workers can practice diaphragmatic breathing to reduce the flight or fight response during stressful moments (Bremner et al., 2020; Hopper et al., 2019). Diaphragmatic breathing stimulates the vagus nerve, which directly correlates with the parasympathetic nervous system, resulting in the physiological calming of the body (Bremner et al., 2020; Hopper et al., 2019;

Porges & Dana, 2018). While deep breathing is efficacious in physically calming the body, the healthcare worker needs to understand the impact of their thoughts on their physical and mental health.

To further decrease stress levels and promote mental wellness, the therapist should know about sleep hygiene and mindfulness exercises. Ballesio et al. (2020) describe several strategies to facilitate restful sleep for healthcare workers. These strategies include the healthcare worker understanding their chronotype, creating a comfortable sleep environment, and maintaining a consistent sleep routine (although this can be difficult with shift work). It is essential to avoid electronics and negative information on social media before sleeping. Furthermore, mindfulness strategies such as 'being in the present moment' outlined in cognitive and dialectical behavioural therapy can also aid in restful and rejuvenating sleep (Kladnitski et al., 2020; Linehan & Wilks, 2018).

When the above therapeutic interventions are not efficacious to diminish distress, subsequent medical intervention may be required. For therapists during the pandemic, it is advantageous to have a general understanding of psychopharmacological interventions to monitor the clients' improvements, side effects, or adverse side effects (Levin, 2019). If clients commence a medication regime, a therapist may consider having the client sign a consent to disclose form to contact the treating physician if there are any adverse reactions to the medication. It is prudent that the therapist provide medication education and work collaboratively with the client when discussing the efficacy of medication, side effects, cultural values, and mental health stigma, and when developing a treatment plan and goals.

Future Research

In completing the literature review, two curiosities arose. I wondered why there were no

recommendations for allied health teams to work collaboratively with mental health clinicians to support healthcare staff in the hospital setting. For example, occupational therapists have vast knowledge regarding sleep quality and coping strategies (such as sensory tools), and many hospital units have access to occupational therapists. Secondly, the literature stipulates that managers are foundational in navigating and mitigating mental health issues for their team members. If this is the case, then managers need to be supported by allied treatment teams as well. With ever-changing policies and protocols, managers have a significant amount of stress and pressure to follow directions; elevated stress levels may interfere with their ability to implement mental health interventions. Further research on the positive outcomes and negative repercussions when a multidisciplinary team actively engages in providing mental health support for healthcare workers on individual units would be beneficial (Shapiro et al., 2021).

Current and future mental health issues affecting healthcare workers are inevitable. At the time of writing this paper, a year has passed since the declaration of the pandemic, and we are currently facing a resurgence of COVID cases due to the variants. It is imperative to address how the mental health of healthcare workers will be supported. Emotionally and physically exhausted healthcare workers may face more significant work challenges ahead and continue not to feel supported. As the literature described the effectiveness of the CREATE program and telehealth, future research could include the amalgamation of the two therapy platforms (Jimenez-Rodriguez et al., 2020; Shapiro et al., 2021). For example, setting aside a room for telehealth therapy sessions for healthcare workers during the evening and or night shift would allow more staff to access needed psychological supports. Research focused on collecting statistical information regarding how many more healthcare workers are accessing supports, exploring the times when healthcare workers experience an increase in their symptomology, and analyzing

what therapeutic interventions are most beneficial would provide information to inform therapeutic interventions for healthcare workers in future pandemics.

It would be interesting to evaluate the impact of observable positive quotes and shift rituals on healthcare workers. The influx of negative information about rising COVID positive numbers, anti-maskers, and conspiracy theorists on social media likely negatively impact healthcare workers' mental health (Steinert, 2020). To circumvent the negative impact, a conscious effort must be made to change perceptions by focusing and reframing negative thoughts into more positive ones. One way to do this may be to place positive quotes all over the unit or prominent areas around the unit. Implementing shift rituals may enhance staff cohesion, create a sense of belonging and increase motivation (Montross-Thomas et al., 2016). Rituals are an integral part of any culture and play a valuable role in creating a sense of belonging. Researching the impact of visible positive quotes on the unit and intentional staff rituals may provide information on whether or not this would have an overall impact on healthcare workers.

Further research is necessary to better understand and mitigate the mental health implications for healthcare workers of working during a pandemic. A longitudinal study of transactional relationships and effective therapeutic interventions between therapists and healthcare workers experiencing ASD, burnout, and sleep disturbances is warranted. Mental health supports are needed during a pandemic, and require dialectical considerations for the therapist and healthcare worker.

Recommendations for Practice

Due to the government restrictions regarding social distancing to decrease the spread of COVID, telehealth has become the main form of providing therapy during COVID. Many clients and therapists will choose to continue to access and provide services in this way post-COVID.

While telehealth allows for the continuation of services, there are legal considerations that a therapist must take into account. Therapists must continue to follow the policies and procedures outlined by their licensing body in their practicing region. If a therapist provides counselling in Calgary, Alberta, a legal understanding of telehealth must be understood at the provincial, national, and health authority levels (Canadian Psychological Association, 2020; College of Alberta Psychologists, 2018).

Therapists must navigate technological and ethical issues during sessions in order to provide effective counselling over telehealth. For example, a therapist must ensure that their computer service provider can support zoom meetings or other platforms for sessions, is HIPPAA/PHIPA (in Canada) approved, and consider procuring service for technological difficulties (Geller, 2020; Jimenez-Rodriguez, 2020; Smith et al., 2020). It is essential for therapists to become familiar with the telehealth platform they use for therapy sessions in order to decrease technological disruptions and aid their clients in rectifying technological issues. If technical issues arise during a session, the therapist and client should have previously discussed remedial solutions to compensate for the missed time of the therapy session.

Other ethical considerations when doing therapy via telehealth include privacy, confidentiality, and safety (Canadian Psychological Association, 2020; Chen et al., 2020). Current protocols for most regions in Canada state that verbal informed consent regarding confidentiality and limits of confidentiality is adequate, but written consent should be obtained as soon as possible (Canadian Psychological Association, 2020). Discussing safety with the client may involve collecting their demographic information, documenting their current location and creating a code word to use to indicate if someone else is present during session or if there are concerns about personal safety, including exposure to domestic violence. Furthermore, the

therapist's documentation must reflect that the therapy session occurred via telehealth and measures must be taken to ensure the appropriate and safe storage of client informatio (O'Brien & McNicholas, 2020). Finally, the therapist should consider procuring comprehensive telehealth insurance to ensure their safety (Contant, 2020; O'Brien & McNicholas, 2020). Providing telehealth services for clients during COVID is a formidable option, and special attention must be paid to ensure the safety of both therapists and clients.

Telehealth Therapy

Mental health professionals have engaged in discourse throughout the pandemic regarding the therapeutic effectiveness of providing teletherapy. Many therapists question how well therapeutic alliances can be built and maintained, and their ability to complete comprehensive mental health assessments via telehealth. Interestingly, some research suggests that online therapy is as efficacious as in-person therapy, and in fact, it is the therapist that struggles with the online platform of therapy (Geller, 2020; Jimenez-Rodriguez et al., 2020; Lopez et al., 2019). The authors report that clients feel that online therapy is beneficial if the therapist can exhibit presence, empathy, active listening, and participate in practicing therapeutic interventions. For the therapist to be fully present with the client during therapy, consideration of a few important factors is beneficial.

Therapists benefit from examining some environmental and technological considerations when providing telehealth services (Geller, 2020). For example, the therapist should consider using a larger screen to observe the client, have sessions in a consistent setting to offer comfort in familiarity, and maintain an appropriate distance from the camera so the client can see the them well. Other suggestions include having a practice session with the client to become comfortable with the platform and to determine which environment will best enable the client to

be seen by the therapist. Therapists can also provide tip sheets on what the client should have available during a session, such as Kleenex, coping tools, and beverages (Geller, 2020; Lopez et al., 2019). Developing and discussing a 'rule list' may be beneficial to outline acceptable behaviours during a telehealth therapy session. For example, the client may have a beverage or candy (for self-soothing) in their proximity, or the client can be encouraged to pace during the session but may not leave the room for safety purposes. Communication between therapists and clients is imperative for productive and successful online therapy sessions.

Therapists and clients have expressed that navigating technical difficulties and maintaining privacy are significant sources of concern during telehealth seasions (Geller, 2020; Jimenez-Rodriguez et al., 2020; Lopez et al., 2019). The literature stresses the importance of therapists practicing and being knowledgeable about online platforms and standardized safeguards, and obeying regional legislation. If technical malfunctions occur, it is essential for a therapist to reconnect with the client as soon as possible and to work through technical frustration together. Clients have demonstrated forgiveness on the steep learning curve of adjusting to new platforms (Geller, 2020; Jimenez-Rodriguez et al., 2020; Lopez et al., 2019).

Mask Wearing During In-person Therapy Sessions

Another consideration for therapists is to understand mask wearing policies and to decide whether or not to wear a mask during therapy sessions if this is an option. This dilemma likely occurs for therapists working privately because healthcare setting policies will dictate the use of masks for the therapist. Scheid et al. (2020) stipulate that therapists need to navigate both their own willingness and comfort in wearing a mask when providing therapy and the client's wishes. A potential moral dilemma can arise for the therapist and the healthcare worker engaging in therapy: the therapist may worry that they may offend the healthcare worker by wearing a mask,

thereby insinuating an opinion that healthcare worders are more likely to carry and transmit the virus. This situation may inadvertently shame the client. Conversely, a healthcare worker may wear a mask in numerous settings but wish for face-to-face interaction during therapy. The therapist must invite the healthcare worker to express their thoughts and feelings about wearing a mask during therapy and negotiate a resolution both parties are comfortable with.

Therapist Self-Care

COVID has highlighted the critical need for mental health services to be easily accessible to healthcare workers to mitigate current and future physical and mental health issues in this population. The pandemic has also focused attention on the importance of mental health clinicians routinely engaging in self-care strategies as professional and ethical requirements (Rokach & Boulazreg, 2020; Wise et al., 2012). Therapists who are not managing personal and professional stress effectively can strain therapeutic relationships and processes for healthcare workers (Odaci et al., 2015). Rokach and Boulazreg (2020) describe how clients are aware that the level of care they receive is directionally proportionate to the therapist's overall functioning. It is essential for therapists to be self-aware and engage in self-care during COVID to avoid burnout and mental and physical illness.

Therapists require relatively high emotional intelligence to engage in introspection regarding their own emotional needs and their emotional engagement with clients. One definition of *emotional intelligence* is a therapist's ability to identify their emotions and the emotions of clients, to regulate their emotions and to use their emotions to direct thoughts and behaviours (Odaci et al., 2015). When therapists are emotionally intelligent they can provide more constructive and positive responses to clients. A therapist understands and identifies the triggers that elicit emotional dysregulation in themselves and implement emotional regulation strategies

before, during, and post therapy sessions. Shamoon et al. (2017) describe strategies similar to the ones that a client may learn. For example, mindfulness techniques, deep breathing, and embracing the emotion to learn from it. It is essential not to hold unhelpful judgments or to evaluate emotions or thoughts when they arise. When therapists practice self compassion, they avoid judging thoughts and feelings and provide safe spaces internally to process situations and feelings (Finlay-Jones et al., 2015).

Wise, Hersh and Gibson (2012) developed a self-care model for therapists to use to preserve their personal and professional mental well-being. The authors describe four fundamental principles that are the foundation of the "mindfulness-based positive principles and practices" for therapists (Rokach & Boulazreg, 2020; Wise et al., 2012). The four components are flourishing, intentionality, reciprocity, and daily self-care practices. The principle of flourishing involves therapists acknowledging the human instinct to perseverate on stressors and encourages refocusing on the positive aspects of the profession. Intentionality is accepting one's weaknesses and stressors and intending to address these factors to create change. The principle of reciprocity encourages the therapist to be humble and acknowledge that emotional pain can manifest and present in both therapists and their clients. Therapists benefit from the skills they teach and encourage the client to use. The final principle of daily self-care reminds the therapist to commit to practicing self-care strategies and to develop emotionally and physically rejuvenating routines (Rokach & Boulazreg, 2020; Wise et al., 2012).

Practicing self-compassion involves using active self-soothing to regulate the sympathetic nervous system and requires perceiving stressful situations through another lens (Finlay-Jones et al., 2015). Self-compassion embraces empathetic bonding with the client and provides a protective barrier from compassion fatigue and vicarious trauma. During COVID,

therapeutic experiences and platforms have significantly changed, and these chages are difficult for therapists to navigate. If coping strategies, self-compassion and self-care become less effective, therapists must reach out to supports such as supervisors or other therapists (Shamoon et al., 2017).

Reflexive Self-Statement

Completing this literature review on COVID and the impact that it has had on the mental health of healthcare workers has been gruelling and provocative. Because COVID is a new pandemic, my initial thought was that there would be a lack of available and relevant information to substantiate a position on the mental health implications of this pandemic. Fortunately, this proved a faulty assumption as there is a wealth of information on the mental health ramifications for healthcare workers of working during COVID.

Writing this literature review evoked emotions ranging from sadness and despair to anger, frustration, and surprisingly hope. The frustration and anger I experienced occurred when reviewing the historical literature on previous pandemics. Several authors suggested that organizations, especially in healthcare, should have policies and procedures outlined to provide directives to managers and government officials during times of crisis or pandemic. Having predetermined procedures in place helps mitigate the necessity of developing them during a state of crisis. Such preparation allows for the activation of procedures and therapeutic interventions in a timely fashion, thereby reducing the negative mental health impact of a pandemic on healthcare workers. My overall impression is that current governing bodies did not learn from past pandemics or disasters as the mobilization of resources such as PPE was inefficient. Furthmore, it took several months before information regarding psychological first aid was circulated and to develop mental health resources specific to healthcare workers.

The literature review supported my initial belief that early mental health interventions circumvent long-term mental health issues for healthcare workers. Early identification and intervention in cases of acute stress disorder, burnout, and sleep disturbance are protective for healthcare workers. Educating staff on diaphragmatic breathing, mindfulness, and cognitive reframing early on in a pandemic allows healthcare workers an opportunity to implement these strategies while so many other things are changing. Empowering the healthcare worker with a sense of agency and resiliency during a pandemic will possibly mitigate their need for long-term therapy or psychopharmaceutical interventions.

While COVID challenges healthcare workers and the healthcare system in unique ways, I was pleasantly surprised that the literature supported the efficacy of on-unit and telehealth therapy for mental health worker clients. In Toronto, Ontario, the CREATE program proved to be an effective strategy to support healthcare workers while on shift. Initially, I believed that the barrier of personal protective equipment might deter or reduce the effectiveness of on-unit therapeutic interventions, but the literature disproved my belief. Furthermore, telehealth is a relatively easy and accessible form of therapy for healthcare workers during COVID. My experience with telehealth was initially frustrating, and it distanced me from providing supportive care to clients in the community. The information gathered during my literature review and my initial experiences with telehealth demonstrate that my distress with implementing this tool created a bias in me towards this form of therapy.

Overall, the literature review supported my notion that the COVID pandemic is having a negative mental health impact on healthcare workers. While discovering and researching effective therapeutic interventions will prove beneficial for future pandemics, it is vital to activate therapeutic interventions that are currently understood. The long term mental health

ramications for healthcare workers are yet to be known, but it is never too late to implement policies and procedures, therapeutic interventions, and support for healthcare workers during pandemics such as COVID.

Conclusion

The COVID pandemic has influenced the daily lives of individuals globally, and particularly the lives of healthcare workers. Initially fear, anxiety, policy, and procedural changes for healthcare workers were burdensome; this burden has become the new normal. Personal protective equipment, social distancing within the hospital setting, and increased hand hygiene and sanitization standards are currently the new baseline standards. During COVID, healthcare workers do their best to provide competent patient care while empathizing with their patients and managing their own mental, emotional and physical well-being. Unfortunately, the mental health ramifications of the pandemic continue and will likely persist for the foreseeable future.

While there is limited research available on the most appropriate therapeutic modalities and interventions when providing therapy for healthcare workers during COVID, implementing psychological first aid, cognitive behavioural therapy, and trauma-informed care are practical starting points. Solid therapeutic alliances with healthcare workers are essential to facilitate open discussions about complex topics such as suicidal thoughts. The therapist and healthcare worker should work collaboratively to determine the best strategies to implement to promote sleep, cope with work stress, and manage complex and fluctuating emotions. The pandemic has been difficult for many individuals, and there must be continuing research on the preservation of the mental health of healthcare workers.

Future research should continue to focus on the most effective therapeutic strategies to mitigate the mental health implications of COVID and future pandemics on healthcare workers,

and to investigate new and alternative interventions. Previous pandemics have provided valuable information regarding the mental health impact on healthcare workers; preventative strategies would be more beneficial and less costly than attending therapy sessions or having healthcare workers off due to stress leave. Acute stress disorder, burnout, and sleep disturbances have significant mental health implications. It is necessary to determine the most effective mental health interventions for healthcare workers for the remainder of the COVID pandemic, and into the future.

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